



Deliverable 2.3 - Risk Exposure Data Common Framework Annexes

Contract No: Integrated Project No. 506723: SafetyNet

Acronym: SafetyNet

Title: Building the European Road Safety Observatory

Integrated Project, Thematic Priority 6.2 "Sustainable Surface Transport"

Project Co-ordinator:

Professor Pete Thomas

Vehicle Safety Research Centre
Ergonomics and Safety Research Institute
Loughborough University
Holywell Building
Holywell Way
Loughborough
LE11 3UZ

Organisation name of lead contractor for this deliverable:

NTUA - National Technical University of Athens

Due Date of Deliverable: 31/10/2008

Submission Date:

Report Author(s):

George Yannis, Eleonora Papadimitriou, Antonis Chaziris **NTUA**
Gilles Duchamp, Philippe Lejeune, Vincent Treny, **CETE-SO**
Stig Hemdorff, **DRD**
Mouloud Haddak, Erik Lenguerrand, **INRETS**
Péter Holló, Miklós Gábor, Mária Cseffalvay, **KTI**
Thomas Leitner, Andrea Angermann, Stefan Hoeglinger, **KfV**
Joao Cardoso, **LNEC**
Frits Bijleveld, Sjoerd Houwing, **SWOV**
Torkel Bjørnskau, **TØI**
Lucy Rackliff, **SafetyNet ICC**

Project Start Date: 1st May 2004

Duration: 4 years

Project co-funded by the European Commission within the Sixth Framework Programme (2002 -2006)		
Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (inc. Commission Services)	
RE	Restricted to group specified by consortium (inc. Commission Services)	
CO	Confidential only for members of the consortium (inc. Commission Services)	



Table of Contents

Annex I - Grids on Risk Exposure Data needs	4
Grid template	4
Austria (KfV)	5
Denmark (DRD)	6
France (INRETS)	7
Greece (NTUA)	8
Hungary (KTI)	9
Netherlands (SWOV)	10
Norway (TØI)	11
Portugal (LNEC).....	12
Annex II - Grids on Risk Exposure Data availability	13
1. Population	13
1.1. Population registers	13
1.1.1. Variables, values and definitions.....	13
1.1.2. Methodology questions	19
2. Road length.....	27
3. Vehicle fleet	27
3.1.1. Variables, values and definitions.....	27
3.1.2. Methodology questions	41
3.2.1. Variables, values and definitions.....	43
4. Driver population.....	45
4.1. Driver population registers	45
4.1.1. Variables, values and definitions.....	45
4.1.2. Methodology questions	47
4.2. Driver population estimated by surveys	49
4.2.1. Variables, values and definitions.....	49
5. Vehicle kilometres.....	51
5.1. Vehicle Kilometres estimated by surveys.....	51
5.1.1. Variables, values and definitions.....	51
5.1.2. Methodology questions	54
5.2. Vehicle Kilometres estimated by traffic counts.....	58
5.2.1. Variables, values and definitions.....	58
5.2.2. Methodology questions	61
5.3. Vehicle Kilometres estimated by statistical models.....	65
5.3.1. Variables, values and definitions.....	65
5.3.2. Methodology questions	65
5.4. Vehicle Kilometres estimated by combination of methods	66
5.4.1. Variables, values and definitions.....	66
5.4.2. Methodology questions	68
5.5. Vehicle Kilometres estimated by other methods	70
5.5.1. Variables, values and definitions.....	70
5.5.2. Methodology questions	71

6. Person kilometres	73
6.1. Person kilometres estimated by survey	73
6.1.1. Variables, values and definitions.....	73
6.1.2. Methodology questions	77
6.2. Person kilometres estimated by traffic counts.....	81
6.3. Person kilometres estimated by combination of methods	81
6.3.1. Variables, values and definitions.....	81
6.3.2. Methodology questions	84
7. Number of trips	85
7.1. Number of trips estimated by surveys.....	85
7.1.1. Variables, values and definitions.....	85
7.1.2. Methodology questions	86
8. Time in traffic	87
8.1. Time in traffic estimated by surveys:.....	87
8.1.1. Variables, values and definitions.....	87
8.1.2. Methodology questions	92

Annex I - Grids on Risk Exposure Data needs

Grid template

Exposure Indicator	VARIABLES	Road Safety Analysis Tasks				
		Public Health Risk	Traffic Risk			
		Population	Road User	Vehicle	Network	
Vehicle - Kilometres	Vehicle type	Not possible due to the definition of Health Risk ~ something by population	Person level			
	Vehicle engine size					
	Vehicle Age					
	Area type					
	Road type				Double information	
	Year/month/day/hour					
Person - Kilometres	Person class		Not possible due to the definition of Health Risk ~ something by population	Covered by Road user information		
	Age					
	Gender					
	Nationality					
	Driver license age					
	Vehicle type					
	Vehicle engine size					
	Vehicle Age					
	Area type					
	Road type					
	Year/month/day/hour					
	Alcohol/drug use					
	Seat belt use					
	Vehicle Fleet	Vehicle type			Not possible due to the definition of Health Risk ~ something by population	Vehicle information only
Vehicle age						
Vehicle engine size						
Region						
Mass						
Fuel type						
Driver Population	Age	Identical to Road User information	Road user information only			
	Gender					
	Driver license age					
	Nationality					
	Region					
	Active driving license					
Road Length	Area type	Not possible due to the definition of Health Risk ~ something by population	Network information only			
	Road type					
	Region					
Population	Age	Not possible due to the definition of Health Risk ~ something by population	Public Health only others covered by other information			
	Gender					
	Nationality					
	Region					
Time in traffic	Person class	Identical to Road User information	Primarily Road User Vehicle and Network is covered by variables included			
	Age					
	Gender					
	Vehicle type					
	Vehicle Age					
	Area type					
	Road type					
Year/month/day/hour						
Number of trips	Person class	Identical to Road User information	Primarily Road User Vehicle and Network is covered by variables included			
	Age					
	Gender					
	Vehicle type					
	Vehicle Age					
	Area type					
	Road type					
Year/month/day/hour						

H: High Importance
L: Low Importance



Project co-financed by the European Commission, Directorate-General Transport and Energy

Austria (KfV)

Exposure Indicator	VARIABLES	Road Safety Analysis Tasks			
		Public Health Risk		Traffic Risk	
		Population	Road User	Vehicle	Network
Vehicle - Kilometres	Vehicle type			H	
	Vehicle engine size			H	
	Vehicle Age			H	
	Area type			L	
	Road type			L	
	Year/month/day/hour			H	
Person - Kilometres	Person class		H		
	Age				
	Gender				
	Nationality				
	Driver license age				
	Vehicle type				
	Vehicle engine size				
	Vehicle Age				
	Area type				
	Road type				
	Year/month/day/hour				
	Alcohol/drug use				
	Seat belt use				
	Vehicle Fleet				
Vehicle age		L			
Vehicle engine size		L			
Region					
Mass					
Fuel type					
Driver Population	Age		H		
	Gender				
	Driver license age				
	Nationality				
	Region				
	Active driving license				
Road Length	Area type				H
	Road type				H
	Region				L
Population	Age	H			
	Gender	H			
	Nationality	L			
	Region	L			
Time in traffic	Person class		L		
	Age				
	Gender				
	Vehicle type				
	Vehicle Age				
	Area type				
	Road type				
	Year/month/day/hour				
Number of trips	Person class		L		
	Age				
	Gender				
	Vehicle type				
	Vehicle Age				
	Area type				
	Road type				
	Year/month/day/hour				

Denmark (DRD)

Exposure Indicator	VARIABLES	Road Safety Analysis Tasks								
		Public Health Risk		Traffic Risk						
		Population	Road User	Vehicle	Network					
Vehicle - Kilometres	Vehicle type			H	H					
	Vehicle engine size									
	Vehicle Age									
	Area type			H						
	Road type			H						
	Year/month/day/hour			Year	Year					
Person - Kilometres	Person class									
	Age					H				
	Gender					H				
	Nationality					H				
	Driver license age					H				
	Vehicle type					H				
	Vehicle engine size									
	Vehicle Age									
	Area type					H				
	Road type					H				
	Year/month/day/hour					Year				
	Alcohol/drug use									
	Seat belt use									
	Vehicle Fleet					Vehicle type			H	H
						Vehicle age			H	
Vehicle engine size										
Region		L	H							
Mass		H	H							
Fuel type										
Driver Population	Age									
	Gender					H				
	Driver license age					H				
	Nationality									
	Region					H				
	Active driving license									
Road Length	Area type				H					
	Road type				H					
	Region				H					
Population	Age	H								
	Gender	H								
	Nationality									
	Region	H								
Time in traffic	Person class									
	Age					L				
	Gender					L				
	Vehicle type					L				
	Vehicle Age									
	Area type					L				
	Road type					L				
	Year/month/day/hour					L (Year)				
Number of trips	Person class									
	Age					L				
	Gender					L				
	Vehicle type					L				
	Vehicle Age									
	Area type					L				
	Road type					L				
	Year/month/day/hour					L (Year)				

France (INRETS)

Exposure Indicator	VARIABLES	Road Safety Analysis Tasks			
		Public Health Risk	Traffic Risk		
		Population	Road User	Vehicle	Network
Vehicle - Kilometres	Vehicle type			H	H
	Vehicle engine size			H	
	Vehicle Age			H	
	Area type			H	
	Road type			H	
	Year/month/day/hour			H	H
Person - Kilometres	Person class		H		
	Age		H		
	Gender		H		
	Nationality		L		
	Driver license age		H		
	Vehicle type		L		
	Vehicle engine size				
	Vehicle Age		L		
	Area type		L		
	Road type		H		
	Year/month/day/hour		H		
	Alcohol/drug use		H		
	Seat belt use		H		
	Vehicle Fleet	Vehicle type			
Vehicle age				H	
Vehicle engine size				H	
Region				H	H
Mass				H	
Fuel type				L	
Driver Population	Age		H		
	Gender		H		
	Driver license age		H		
	Nationality		L		
	Region		H		
	Active driving license		H		
Road Length	Area type				H
	Road type				H
	Region				H
Population	Age	H			
	Gender	H			
	Nationality	H			
	Region	H			
Time in traffic	Person class		H		
	Age		H		
	Gender		H		
	Vehicle type		H		
	Vehicle Age		L		
	Area type		L		
	Road type		L		
	Year/month/day/hour		H		
Number of trips	Person class		H		
	Age		H		
	Gender		H		
	Vehicle type		H		
	Vehicle Age		L		
	Area type		L		
	Road type		L		
	Year/month/day/hour		H		

Greece (NTUA)

Exposure Indicator	VARIABLES	Road Safety Analysis Tasks								
		Public Health Risk	Traffic Risk							
		Population	Road User	Vehicle	Network					
Vehicle - Kilometres	Vehicle type			H						
	Vehicle engine size			H						
	Vehicle Age			H						
	Area type			H						
	Road type			H						
	Year/month/day/hour			H						
Person - Kilometres	Person class									
	Age					H				
	Gender					H				
	Nationality					H				
	Driver license age					H				
	Vehicle type									
	Vehicle engine size									
	Vehicle Age									
	Area type									
	Road type									
	Year/month/day/hour					H				
	Alcohol/drug use					H				
	Seat belt use					H				
	Vehicle Fleet					Vehicle type			L	
						Vehicle age			L	
Vehicle engine size		L								
Region		L								
Mass										
Fuel type										
Driver Population	Age									
	Gender					H				
	Driver license age									
	Nationality					L				
	Region					H				
	Active driving license									
Road Length	Area type				L					
	Road type				L					
	Region				L					
Population	Age	H								
	Gender	H								
	Nationality	L								
	Region	H								
Time in traffic	Person class									
	Age					H				
	Gender					H				
	Vehicle type					H				
	Vehicle Age					H				
	Area type					H				
	Road type					H				
	Year/month/day/hour					H				
Number of trips	Person class									
	Age					H				
	Gender					H				
	Vehicle type					H				
	Vehicle Age					H				
	Area type					H				
	Road type					H				
	Year/month/day/hour					H				

Hungary (KTI)

Exposure Indicator	VARIABLES	Road Safety Analysis Tasks			
		Public Health Risk	Traffic Risk		
		Population	Road User	Vehicle	Network
Vehicle - Kilometres	Vehicle type			L	L
	Vehicle engine size			L	
	Vehicle Age			H	
	Area type				
	Road type			H	
	Year/month/day/hour				
Person - Kilometres	Person class				
	Age				
	Gender				
	Nationality				
	Driver license age				
	Vehicle type				
	Vehicle engine size				
	Vehicle Age				
	Area type				
	Road type				
	Year/month/day/hour				
	Alcohol/drug use				
	Seat belt use				
	Vehicle Fleet				
Vehicle age		H			
Vehicle engine size		L			
Region					
Mass					
Fuel type					
Driver Population	Age			H	
	Gender			L	
	Driver license age				
	Nationality				
	Region				
	Active driving license			H	
Road Length	Area type				H
	Road type				H
	Region				L
Population	Age	H			
	Gender	H			
	Nationality				
	Region				
Time in traffic	Person class			L	
	Age			L	
	Gender			L	
	Vehicle type				
	Vehicle Age				
	Area type				
	Road type				
	Year/month/day/hour				
Number of trips	Person class			L	
	Age			L	
	Gender			L	
	Vehicle type				
	Vehicle Age				
	Area type				
	Road type				
	Year/month/day/hour				

Netherlands (SWOV)

Exposure Indicator	VARIABLES	Road Safety Analysis Tasks								
		Public Health Risk		Traffic Risk						
		Population	Road User	Vehicle	Network					
Vehicle - Kilometres	Vehicle type			H	H					
	Vehicle engine size									
	Vehicle Age			H						
	Area type			H						
	Road type			H						
	Year/month/day/hour			H	H					
Person - Kilometres	Person class									
	Age					H				
	Gender					H				
	Nationality					L				
	Driver license age									
	Vehicle type					H				
	Vehicle engine size									
	Vehicle Age					L				
	Area type					H				
	Road type					H				
	Year/month/day/hour					H				
	Alcohol/drug use									
	Seat belt use									
	Vehicle Fleet					Vehicle type			H	
						Vehicle age			H	
Vehicle engine size										
Region										
Mass		L								
Fuel type		L								
Driver Population	Age									
	Gender					H				
	Driver license age					L				
	Nationality									
	Region									
	Active driving license									
Road Length	Area type				H					
	Road type				H					
	Region				H					
Population	Age	H								
	Gender	L								
	Nationality									
	Region	L								
Time in traffic	Person class									
	Age									
	Gender									
	Vehicle type									
	Vehicle Age									
	Area type									
	Road type									
	Year/month/day/hour									
Number of trips	Person class									
	Age									
	Gender									
	Vehicle type									
	Vehicle Age									
	Area type									
	Road type									
	Year/month/day/hour									

Norway (TØI)

Exposure Indicator	VARIABLES	Road Safety Analysis Tasks								
		Public Health Risk	Traffic Risk							
		Population	Road User	Vehicle	Network					
Vehicle - Kilometres	Vehicle type			H						
	Vehicle engine size			H						
	Vehicle Age			H						
	Area type			H						
	Road type			H						
	Year/month/day/hour									
Person - Kilometres	Person class									
	Age					H				
	Gender					H				
	Nationality					H				
	Driver license age									
	Vehicle type									
	Vehicle engine size									
	Vehicle Age									
	Area type					H				
	Road type					H				
	Year/month/day/hour					H				
	Alcohol/drug use					H				
	Seat belt use					H				
	Vehicle Fleet					Vehicle type			L	
						Vehicle age			L	
Vehicle engine size		L								
Region		L								
Mass										
Fuel type										
Driver Population	Age			L						
	Gender			L						
	Driver license age			L						
	Nationality			L						
	Region			L						
	Active driving license									
Road Length	Area type				L					
	Road type				L					
	Region				L					
Population	Age	L								
	Gender	L								
	Nationality	L								
	Region	L								
Time in traffic	Person class									
	Age					H				
	Gender					H				
	Vehicle type									
	Vehicle Age									
	Area type									
	Road type									
	Year/month/day/hour									
Number of trips	Person class									
	Age					L				
	Gender					L				
	Vehicle type									
	Vehicle Age									
	Area type									
	Road type									
	Year/month/day/hour									

Portugal (LNEC)

Exposure Indicator	VARIABLES	Road Safety Analysis Tasks								
		Public Health Risk	Traffic Risk							
		Population	Road User	Vehicle	Network					
Vehicle - Kilometres	Vehicle type			H						
	Vehicle engine size			H						
	Vehicle Age			H						
	Area type			H						
	Road type			H						
	Year/month/day/hour									
Person - Kilometres	Person class									
	Age					H				
	Gender					L				
	Nationality					H				
	Driver license age					L				
	Vehicle type					H				
	Vehicle engine size									
	Vehicle Age					H				
	Area type					H				
	Road type					H				
	Year/month/day/hour									
	Alcohol/drug use					H				
	Seat belt use					L				
	Vehicle Fleet					Vehicle type			H	
						Vehicle age			L	
Vehicle engine size		L								
Region										
Mass										
Fuel type										
Driver Population	Age			H						
	Gender			L						
	Driver license age			H						
	Nationality			H						
	Region			H						
	Active driving license			H						
Road Length	Area type				H					
	Road type				H					
	Region				H					
Population	Age	H								
	Gender	H								
	Nationality	H								
	Region	H								
Time in traffic	Person class			L						
	Age			L						
	Gender									
	Vehicle type									
	Vehicle Age									
	Area type									
	Road type									
Year/month/day/hour										
Number of trips	Person class			L						
	Age			L						
	Gender									
	Vehicle type									
	Vehicle Age									
	Area type									
	Road type									
	Year/month/day/hour									

Annex II - Grids on Risk Exposure Data availability

1. Population

(Responsible partner: KfV)

All countries examined retrieve population data through censuses, conducted on a regular time basis, covering the whole country population. These data are used to maintain and update the respective registers.

1.1. Population registers

1.1.1. Variables, values and definitions

BELGIUM

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

CZECH REPUBLIC

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?

DENMARK

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?



GERMANY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

ESTONIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

GREECE

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
	Age groups		?
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

SPAIN

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

FRANCE

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-



IRELAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

ITALY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

CYPRUS

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
	Age groups		?
Person gender	Male		-
	Female		-
Person nationality	Country names		Coefficient?
	Nationality groups		Coefficient?
Region	NUTS 1		-
Other	District, municipality, village		n/a in CARE

LATVIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS		-
Other	26 Regions		n/a in CARE
	Riga, City Jurmala		n/a in CARE

LITHUANIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	Age groups		?
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

LUXEMBURG

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

HUNGARY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

MALTA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		?
	Age groups		?
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

NETHERLANDS

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Region	NUTS 3 and lower		-
Person nationality	Country names		-
	Nationality groups		?



NORWAY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS 5 and lower		-

AUSTRIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
	Age groups		?
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS 1,2,3		-

POLAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

PORTUGAL

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

SLOVENIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-



SLOVAKIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

FINLAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	Age groups		?
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

SWEDEN

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?
Region	NUTS	Levels?	-

UNITED KINGDOM

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person age	0-99		-
Person gender	Male		-
	Female		-
Person nationality	Country names		-
	Nationality groups		?

1.1.2. Methodology questions

	BE	CZ	DK	DE	EE
Who is responsible for this register (organization, contact person)?	POPULATION BELGIUM Casteels Yvan, IBSR, yvan.casteels@ibsr.be	POPULATION CZECH REPUBLIC, Czech Statistical Yearbook, print form (Czech and English) http://www.czso.cz/eng/ edicniplan.nsf/t/550045 A73A/\$File/0403.xls http://www.czso.cz/eng/ edicniplan.nsf/t/550045 A739/\$File/0402.xls (Czech and English)	POPULATION DENMARK www.statistikb anken.dk Statistics Denmark	POPULATION GERMANY, Gruppe VI B, "Bevölkerung und Migration" Telefon: (0611) 75-4866, Telefax: (0611) 72-4000. www.destatis.de (Fachserie 1, Reihe 1.3 Bevölkerungsfortschreibung). E-Mail: natuerliche- bevoelkerungsbewegung@de statis.de	Department of Population Statistics, STATISTICS ESTONIA, www.stst.ee Ülle Valgma, ylle.valgma@stat.ee Tel. 372 6259267 Fax: 372 6259370
Since when is the register maintained?		Population census - population census in 1980, 1991, 2001 (also earlier), in intermediate years data based on balance of population changes	1971 - today , CPR- registered (social security number register).	We have information from 1950 - 2005. The methodology (census) has been used throughout the period.	Number of population by age, sex and county are available for period 1970 – 2004. Since 2000 the migration data were not used in the estimation of the population.
How often is the register updated?	Data are annually released by the FPS Economy SMEs, Self-employed and Energy (ex-INS) on the basis of the National Register. We have information from 1991- 2005. The same methodology has been used throughout the period.	every 10 years, foreigners with long- term stay are included, in intermediate years data based on balance of population changes (births, deaths, migration)	Folketal (population) by 1st of January based on CPR and 1 st of July	At least yearly	Component method is used. Population census is carried out once every ten years. For intermediate years, an estimation is made using the data on births and deaths.
Are there any limitations in the data collected?	no	No	No	No	No
Are there any retrofit corrections of the data?	no	No transformation rules, estimation errors are not known	No	No	A systematic error occurs because the migration data is not used. The missing migration data is the main source for errors, the other errors are considerable smaller. We don't have calculations of the magnitude of systematic error currently.

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	EL	ES	FR	IE	IT
Who is responsible for this register (organization, contact person)?	POPULATION GREECE Theoxaris Tsigkas, National Statistical Service of Greece, tsinkast@statisitcs.gr Tel: +30.210.4852171 www.statistics.gr	POPULATION SPAIN, Margarita Cantalapiedro Malaguilla, Instituto Nacional de Estadística, mcm@ine.es, Tel: 91-5839291, Fax: 915839106, www.ine.es	POPULATION FRANCE Insee (Institut national de la statistique et des études économiques) 18, Boulevard Adolphe Pinard, 75675 - Paris cedex 14, Tel. 01.41.17.50.50 www.insee.fr	POPULATION IRELAND Francis McCann, Central Statistics Office, francis.mccann@cso.ie Tel: 00 353 1 498 4279 Fax: 00 353 1 498 4268 www.cso.ie	POPULATION ITALY Istat - Istituto Nazionale di Statistica Via Cesare Balbo 16, 00184 - Roma, Tel: +39 06 46731 222.istat.it, http://demo.istat.it/indexe.html
Since when is the register maintained?	At least since 1991	This methodology has been applied for 1991-2005 period, but figures from 1991 to 2001 years have been adjusted to 2001 Census. From 2002 onwards, population estimates are obtained by the Component Method.	Last general population census 1999 since 2004 new system. Before 1999: census of total population , each 8-9 years	Since 1901.	Population census every 10 years, latest census was 2001, calculation for intermediate years
How often is the register updated?	A 10 yearly census, based on a questionnaire to be filled for each household, is carried out. The last census took place in 2001, while for the intermediate years, an estimation is made, based on the results of the census.	At least yearly	After 2004: Annual census with samples and calculation/estimation of population with the results. Municipalities up to 10.000 inhabitants: complete count every 5 years, 1/5 of the communities counts is counted every year. Municipalities over 10.000 inhabitants: Annual survey with a sample of approx. 8% conducted between January and February (exceptions until March)	Census of Population 1991, 1996, 2002. Annual Population Estimates 1991-2004 Annual updates.	Latest census in 2001, calculation for intermediate years

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

Are there any limitations in the data collected?	No	No	No	No	Not known
Are there any retrofit corrections of the data?	Errors on primary data are collected	No	Not known	No	Not known

	CY	LV	LT	LU	HU
Who is responsible for this register (organization, contact person)?	Population Cyprus, Ioanna Chappa, Statistical Service of Cyprus, ichappa@cystat.mof.gov.cy Tel. +35722602139	POPULATION LATVIA Central Statistical Bureau of Latvia, 1 Lacplesa Street, Riga, LV - 1301, www.csb.lv/avidus.cfm	POPULATION LITHUANIA http://www.std.lt/it Gedimino av. 29, LT-01500 Vilnius, Lithuania, phone: +370 5 - 236 48 22, fax: +370 5 - 236 48 45, statistika@stat.gov.lt	POPULATION LUXEMBURG, THILL-DITSCH Germaine, STATEC, germains.thill@statec.etat.lu , Tel: +352 478 4276 Fax: +352 26 19 06 41	POPULATION HUNGARY Géczy Gabriella, Hungarian Central Statistical Office gabriella.ceczy@office.ksh.hu Tel: (36-1) 345-6558 Fax: (36-1) 345-6678 www.ksh.hu
Since when is the register maintained?	The methodology has been used throughout the period (1991 to date): Population census (1992, 2001): direct questionnaires completed by interviewers for each person once every ten years. For intermediate years, an estimate is made using the results from the previous year. Population (t+1)=Population (t)+Births(t)-Deaths(t)+Immigrants(t)-Emigrants(t)	Population census, latest census was 2000, calculation for intermediate years. Beginning of data recording in 1995, before Russian statistical data?	1970	Population census since the 19th century,	At least since 1991 component method. The population numbers are based on the population census, from the last census, 1 February 2001, taking into consideration the yearly natural change (number of births minus number of deaths) and net international migration.
How often is the register updated?	Annual 'Demographic Reports' and Census reports are available at: www.mof.gov.cy/cystat	Annually	Population census (every ten years) and information from local parish registers (every year) Last census: 2001	census every 10 years (latest 2001), calculation of population for intermediate years	A 10 yearly census, based on a questionnaire to be filled by each household, is carried out. The last census took place in 2001, while for the intermediate years, an estimation is made, based on the results of the census.
Are there any limitations in the data collected?	No	Not known	No	No	No

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

Are there any retrofit corrections of the data?	Adjustments to the enumerated census population based on the post enumeration survey (undercount of 1,98%). No transformation. At the district level estimates are based on an assumed share of the population of each district to the total.	Not known	No	No	No
-------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------	----	----	----

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	MT	NL	NO	AT	PL
Who is responsible for this register (organization, contact person)?	POPULATION MALTA, www.nso.gov.mt, Etienne Caruana, National Statistics Office, etienne.caruana@gov.mt, Tel: 00356 25997621	-	Statistics Norway PO Box 8131 Dep, NO-0033 Oslo, Tel: +47 21 09 00 00, Fax: +47 21 09 49 73, ssb@ssb.no, http://www.ssb.no/	POPULATION AUSTRIA Gustav Lebart STATISTICS AUSTRIA gustav.lebart@statistik.gv.at Tel: +43-1-71128-7766 Fax: +43-1-71128-7445, www.statistik.at	POPULATION POLAND Statistical Information Centre, 00-925 Warsaw, Al. Niepodległości 208, Telephone Exchange: (48 22) 608 30 00, 608 30 01, www.stat.gov.pl/englis.h/index.htm
Since when is the register maintained?	since 1961	-	The central population register from 1964 with every citizen having a unique person number	2002-today "Central electronical register", 1996-2001 "Population census & Migration data", before 1996 "Population census & Migration estimation"	Population census, latest census was 2002. Oldest available data from 1946, data up to 2003 available on webpage
How often is the register updated?	We use only one data source, i.e., the 1995 (+2005) census. We update the population figures using appropriate mathematical projections by taking into consideration all the deaths, births, immigration, and emigration since the time of the census. census of the population which is conducted in Malta every 10 years.	-	Updated every year	Every ten years a population census with household questionnaires was executed by Statistik Austria. For intermediate years the population number was estimated based on the following method: $P(n+t) = P_n + B_t - D_t + I_t - E_t$. Where: $P(n+t)$ =final population for a specific year after the last census ($n+t$). P_n =population from a year with census; B_t =Live-births since the census; D_t =Deaths since the census; I_t =Immigrants since the census; E_t =Emigrants since the census. Migration statistics 1996 to 2001: the migration data based on the register data from the local registry offices, before 1996 the migration data have been estimated. since 2002: Population register (STATISTICS AUSTRIA): Flow (migration statistics) and stock (population statistics) data records are serviced and updated quarterly by data supplied by the "Zentrales Melderegister" (Central registration system). A valid duration of residence begins on the registration date, providing no other registration has taken place	At least yearly

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

				for at least 90 days prior to this date. The end of the valid duration of residence (completed registration episode) is when at least 90 days after the deregistration date, no further registration has taken place. The date will only be overwritten when a new valid registration date is available. A completed registration episode can therefore consist of several sub-registration events, which are processed in accordance with the requirements.	
Are there any limitations in the data collected?	No	-	No		Not known
Are there any retrofit corrections of the data?	No	-	No		Not known

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	PT	SI	SK	FI	SE	UK
Who is responsible for this register (organization, contact person)?	POPULATION PORTUGAL, Cláudia Pina, INE- Instituto Nacional Estatística (National Statistical Institute) claudia.pina@ine.pt Tel: 00 351 218 426 100	POPULATION SLOVENIA, Katja Kalin, Statistical Office of the Republic of Slovenia, info.stat@gov.si, Tel: +386 1 241 51 04 Fax: +386 1 234 08 60	POPULATION SLOVAKIA, Milan Zirko, Statistical Office of the Slovak Republic, zirko@statistics.sk, Tel: +421 02 51236771, Fax: +421 02 50236788	POPULATION FINLAND Finnish Population Register Centre Only one data source: Statistics Finland, Demographic statistics	POPULATION SWEDEN, Annika Klintefelt, Statistics Sweden, annika.klintefelt@scb.se , Tel: +46 19 17 61 15, Fax: +46 19 17 69 48, www.scb.se/be0101	POPULATION U.K, Jon McMullan, Office for National Statistics, England and Wales, jon.mcmullan@ons.gsi.gov.uk, Tel: 01329 813318, http://www.statistics.gov.uk
Since when is the register maintained?	NSI of Portugal is the only (and official) data source for national population figures. Every ten years we have a population census. The last one occurred in 2001. For intermediate years NSI Portugal calculates annual population estimates., NSI Portugal has information from 1991 to 2004. The same methodology has been used throughout the period	methodology has been used since 1 January 1995 - today.	Updating of Population census results (2001, or 1991, or 1980, or 1970) is the first step of the balance method.	Since 1970, Central population register	1968-2005	At least since 1991
How often is the register updated?	The last one occurred in 2001. For intermediate years NSI Portugal calculates annual population estimates.	At least yearly	The population data are updated monthly but published usually only as of 1 April, 1 July, 1 October, and 31 December each year. In the SR, the population data as of the end of the year (i. e. 31 Dec.) are used mostly. Data as of 1 July (i. e. mid-year population) are used for calculating statistical demographic rates.	At least yearly	Our population data is published monthly on www.scb.se/be0101	The Cohort Component method is used to estimate the resident population of England and Wales on 30 June each year. This is revised every ten years on the Census.

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

Are there any limitations in the data collected?	No	No	No	No	No	No
Are there any retrofit corrections of the data?	No	No	No	Not known	No	Yes. There was an initial difference of 1.2 million people between the 2001 census and the annual rolled forward estimate. Subsequent work reduced this to 209,000.

2. Road length

(Responsible partner: LNEC)

Eighteen European countries in total reported collecting road length data in road registers. All information included in the grids was compiled into the summary tables presented in chapter 3.3 of the main Deliverable.

3. Vehicle fleet

The examined countries reported collecting vehicle fleet data by registers or estimating vehicle fleet by statistical models.

3.1. Vehicle registers

3.1.1. Variables, values and definitions

BELGIUM

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT in 1993 and 1994 including 13557 and 23256 vehicles with technical data missing; from 1995 only total data are available	coefficient?
	Lorry > 3,5t	Definition CARE≠EUROSTAT in 1993 and 1994 including 13557 and 23256 vehicles with technical data missing; from 1995 only total data are available	coefficient?
	Bus or coach		
	Moped	Only for 1988	
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans		
Vehicle engine size	0-5000 cc	?	
	Engine size groups	?	
Vehicle age	0-99	Mopeds only for 1988 Lorries only since 1992	

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Age groups	Only total data: - Motorcycles, mopeds - Cars, buses, road tr. until 1991	
Region	NUTS	?	

CZECH REPUBLIC

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t	Heavy goods vehicles belong to other weight category +/- 3 000 kg.	-
	Lorry > 3,5t	Heavy goods vehicles belong to other weight category +/- 3 000 kg.	-
	Bus or coach (partially available)		?
	Moped		-
	Motorcycle		-
	Road tractor / Agricultural tractor		-
Vehicle age	0-99 (Vehicle age available by vehicle types, cross tabulated. Therefore it is considered that the information is also available in 0-99 form, although it was not stated by the country)		coefficient?
	Age groups	Different age groups Only total data: Motorcycles	

DENMARK

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car Incl. minibus up to 9 p.		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach (p. car Incl. minibus up to 9 p.)		
	Moped	Registration from 2006 mid	
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans	?	



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

Vehicle engine size	0-5000 cc	?	
	Engine size groups	?	
Vehicle age	0-99	mopeds only for 1992 and since 2006 mid	
	Age groups	Only total data: - Motorcycles, mopeds - Cars, lorries, buses, road tractors until 1994	
Region	NUTS	?	

GERMANY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car	???	
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped		
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans	?	
Vehicle engine size	0-5000 cc	?	
	Engine size groups		
Vehicle age	0-99 (?)	1992 data only for bus- category, 1992 data missing for other categories data on mopeds missing since 2000	
	Age groups (I)	Only total data: - Motorcycles, mopeds - Cars, lorries, until 1993 - Buses until 1994 - Road tractors until 1998	
Region	NUTS	?	

ESTONIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t	Only first reg. - since 2000	?
	Lorry > 3,5t	Only first reg. - since 2000	?
	Bus or coach		-
	Motorcycle		-
	Road tractor / Agricultural tractor		-
	Trailers, semi trailers+caravans	Semi-trailers only. Only first reg. - since 2000	?
	Other	Only first reg. - since 2000	-



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

Vehicle engine size	0-5000cc	Only first reg. - since 2000	-
	Engine size groups	Only first reg. - since 2000	-
	unknown	Only first reg. - since 2000	-
Vehicle age	0-99	0-20 (0-99 since 2000)	Coefficient
	Age groups	Different age groups. Only total data: - Motorcycles, road tractors - Cars, lorries, buses until 1997	Aggregations

GREECE

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped		
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans		
Vehicle engine size	0-5000 cc	?	
	Engine size groups		
Vehicle age	0-99	Mopeds since 1993 only	
	Age groups	Only total data: - Lorries, motorcycles, mopeds - Cars, road tractors, buses until 1993	
Region	NUTS	?	

SPAIN

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped		
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans		
Vehicle engine size	0-5000 cc	?	
	Engine size groups		



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

Vehicle age	0-99	Excluding mopeds, Missing data: - 2003 for all categories - cars: 1996-1998,	
	Age groups	- Motorcycles: only total data - For cars for 1994-1995 and since 1999 (2003 excl.) there are age groups - Lorries, buses, road tractors since 1994 (2003 excl.) there are age groups	
Region	NUTS	?	

FRANCE

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car	(under 15 years)	Coefficient (to obtain a number for the whole series of years)
	Lorry < 3,5t	(under 15 years)	Coefficient (to obtain a number for the whole series of years)
	Lorry > 3,5t	(under 15 years)	Coefficient (to obtain a number for the whole series of years)
	Bus or coach	(under 20 years)	Coefficient (to obtain a number for the whole series of years)
	Moped	??????	-
	Motorcycle	??????	-
	Road tractor / Agricultural tractor	(under 10 years)	Coefficient (to obtain a number for the whole series of years)
	Trailers, semi trailers and caravans	(under 20 years)	Coefficient (to obtain a number for the whole series of years)
Vehicle engine size	Administrative power	Not included in CARE	Definition needed
Vehicle age	0-99	See above remarks relevant to vehicle categories	
	Age groups-passenger cars only (<3, 4-5, 6-7, 8-10, 11-15)	Different age groups. Only total data: - Motorcycles, mopeds - Cars: until 1993, - Lorries, buses, road tractors: until 1997	Aggregation

IRELAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Moped	Only from 1988 to 1992	
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans	?	
Vehicle engine size	0-5000 cc	?	
	Engine size groups		
Vehicle age	0-99	- Mopeds only for 1988- 1992, - Road tractors only until 1989, (1987 data missing)	
	Age groups	Only total data: - Motorcycles, buses	
Region	NUTS	?	

ITALY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped	No data after 1998 respectively	
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans	?	
Vehicle engine size	0-5000 cc	?	
	Engine size groups	?	
Vehicle age	0-99	Mopeds only until 1998 Motorcycles, lorries, road tractors: 1993 data missing	
	Age groups	Only total data: - Motorcycles, mopeds - Cars, buses, lorries, road tractors, 2002 excluded	
Region	NUTS	?	

CYPRUS

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Moped		
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans		
Vehicle engine size	0-5000 cc	?	
	Engine size groups	?	
Vehicle age	0-99	road tractors only since 1995	
	Age groups	Only total data: - Motorcycles, mopeds, road tractors - Cars, lorries, buses until 1991	
Region	NUTS	?	

LATVIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT (incl. road tractor)???	
	Bus or coach		
	Moped	Since 2004???	
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition? Registered in the category of lorries ???	
	Trailers, semi trailers + caravans		
Vehicle engine size	0-5000 cc	?	
	Engine size groups		
Vehicle age	0-99	Road tractors for 1990 and since 1994, Lorries for 1990 and since 1993 Mopeds since 2004???	
	Age groups	Different age groups Only total data: - Motorcycles, mopeds - Cars, buses, lorries, road tractors until 1995	
Region	NUTS	?	



LITHUANIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped		
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
Vehicle engine size	Trailers, semi trailers + caravans	?	
	0-5000 cc	?	
Vehicle age	Engine size groups		
	0-99	Excluding mopeds	
Region	Age groups	Only total data: - Motorcycles - Cars, buses, lorries, road tractors until 1995	
	NUTS	?	

LUXEMBURG

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped	No data after 1994 respectively	
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
Vehicle engine size	Trailers, semi trailers + caravans		
	0-5000 cc	?	
Vehicle age	Engine size groups		
	0-99	Mopeds only for 1993 and 1994 1995-1997 data missing for motorcycles and cars, 1995-1998 data missing for lorries, road tractors and buses	
	Age groups	- Motorcycles, mopeds: only total data - Cars, buses, lorries, road tractors: age groups	

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

		since 1999	
Region	NUTS	?	

HUNGARY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car Incl. minibus up to 9 p.		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach (p. car incl. minibus up to 9 p.)		
	Moped		
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans	?	
Vehicle engine size	0-5000 cc	?	
	Engine size groups		
Vehicle age	0-99	Mopeds are excluded	
	Age groups	Only total data: - Motorcycles, mopeds - Cars, buses until 1992 - Lorries, road tractors until 1994	
Region	NUTS	?	Hungary and 19 counties

MALTA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped		
	Motorcycle	Mopeds are incl. in motorcycles	
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans		
Vehicle engine size	0-5000 cc	?	
	Engine size groups	?	
Vehicle age	0-99	- excluding mopeds, - motorcycles for 1990	



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

		and since 1994 - road tractors since 2000	
	Age groups	- Motorcycles: only total data - Cars, buses, lorries: age groups since 1998 - road tractors: age groups since 2000	
Region	NUTS	?	

NETHERLANDS

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car Incl. minibus (<i>Care Glossary</i>)	?	
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach Minibus in p. car (<i>CARE Glossary</i>)	?	
	Moped	Only for 1993-1997	
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans	?	
Vehicle engine size	0-5000 cc	?	
	Engine size groups	?	
Vehicle age	0-99	Mopeds: only for 1993-1997, Motorcycles: data missing for 2003	
	Age groups	For motorcycles and mopeds there are total data only. For the other categories there are age groups since 1996	
Region	NUTS	?	

NORWAY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
	Road tractor / Agricultural tractor		-



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Trailers, semi trailers + caravans	Does not exist as one value	?
Vehicle engine size	0-5000 cc	(Engine size is registered and data can be produced)	-
	Engine size groups	(can be computed)	-
Vehicle age	0-99 (c)		-
	Age groups (c)	Age groups unknown Only total data: - Motorcycles, lorries, road tractors - Cars, buses until 1996	?
Region	NUTS 3 (county), NUTS 5 (municipality)		-

AUSTRIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped		
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans		
Vehicle engine size	0-5000 cc	?	
	Engine size groups	?	
Vehicle age	0-99	Different initial year indicated for the category of lorries in various databases	
	Age groups	Only total data: - Motorcycles, mopeds - Cars, lorries, buses, road tractors until 1993 and for 1995, 1996	

POLAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car	Until 1997 vans were included into the category of "lorries"	?
	Lorry<3,5t	from 1998 including vans	?
	Lorry > 3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
	Road tractor /		-



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Agricultural tractor		
	Trailers, semi trailers+caravans		-
Vehicle engine size groups	<1400cc, 1400-1999cc, >1999cc		-
Vehicle age	0-99		-
	Age groups (<3, 3-5, 6-10, 11-15, 16-20, 21-30, >30)	Different age groups. Only total data: - Motorcycles, - Cars, Lorries, buses, road tractors until 2001	Aggregations
Region	NUTS		?

PORTUGAL

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t	Data up to 1990	Coefficient?
	Lorry > 3,5t	Data up to 1990	Coefficient?
	Bus or coach		-
	Motorcycle		-
	Road tractor / Agricultural tractor		-
Vehicle age	0-99 (Vehicle age available, incomplete, by some vehicle types. Therefore it is considered that the information is also available in 0-99 form, although it was not stated by the country)		?
	Age groups	Only for Cars, Lorries, Buses, Road tractors, and only for 1998, 1999 and 2000	

SLOVENIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped		
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans		
Vehicle engine size	0-5000 cc	?	
	Engine size groups		



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

Vehicle age	0-99	Mopeds: only for 1993-1996 and since 2001 Road tractors: only since 1993	
	Age groups	For motorcycles and mopeds there are only total data. For cars, lorries and buses there are age groups since 1993 (missing data for 1996) For road tractors there are age-groups since 1997	
Region	NUTS	?	

SLOVAKIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped	No data after 1995 respectively	
	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans	?	
Vehicle engine size	0-5000 cc	?	
	Engine size groups		
Vehicle age	0-99	Moped: only for 1992-1995 Road tractors: 1993-1995 and since 1998, Buses: for 1990 and since 1992	
	Age groups	Only for lorries, since 2000 and for road tractors for 2000 and 2001???	
Region	NUTS	?	

FINLAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped		



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Motorcycle		
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans		
Vehicle engine size	0-5000 cc	?	
	Engine size groups	?	
Vehicle age	0-99	road tractors only since 1995	
	Age groups	Only total data: - Motorcycles, mopeds - Cars, lorries, buses, road tractors until 1996	
Region	NUTS	?	

SWEDEN

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach		
	Moped		
	Motorcycle		
	Road tractor / Agricultural tractor Road tractors incl. in lorries from 1990	In CARE several veh. typ EUROSTAT definition?	
	Trailers, semi trailers + caravans	?	
Vehicle engine size	0-5000 cc	?	
	Engine size groups	?	
Vehicle age	0-99	Mopeds only since 1999	
	Age groups	Only total data: - Motorcycles, mopeds - Cars, lorries, buses, road tractors until 1996	
Region	NUTS	?	

UNITED KINGDOM

Indicator definition: Compatible (Some data for GB only)

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car GB Incl. minibus (<i>Care Glossary</i>)	???	
	Lorry < 3,5t	Definition CARE≠EUROSTAT	
	Lorry > 3,5t	Definition CARE≠EUROSTAT	
	Bus or coach	GB Minibus in p. car (<i>CARE Glossary</i>)	



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Moped	
	Motorcycle	
	Road tractor / Agricultural tractor	In CARE several veh. typ EUROSTAT definition?
	Trailers, semi trailers + caravans	?
Vehicle engine size	0-5000 cc	?
	Engine size groups	?
Vehicle age	0-99	
	Age groups	Only total data: - Motorcycles, mopeds - Cars, lorries until 1995 - Road tractors until 1997 - Buses until 1995 and for 1998
Region	NUTS	?

3.1.2. Methodology questions

Methodological questions on vehicle fleet by register:

	PORTUGAL	FRANCE	ESTONIA	POLAND	CZECH REPUBLIC	NORWAY
Who is responsible for this register?	-	-	Estonian Motor Vehicle Centre/Aime Parve/aime.parve@ark.ee	-	-	-
Since when is the register maintained?	-	?	1994	2004	-	-
How often is the register updated?	-	Annually	On-line	Off line	-	Monthly
Are there any limitations in the data collected?	-	Limitations with the age of vehicles, no foreign vehicle	-	Yes	-	-
Are there any retrofit corrections of the data?	-	?	No	No	-	-
Are scrapped vehicles deleted?	-	Normally, but it is not always the case	No	No	-	Yes



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	AUSTRIA	BELGIUM	CYPRUS	DENMARK	FINLAND	GERMANY
Since when is the register maintained?	1967-1995 vehicle register (old vehicle classification) 1995-2003 electronic vehicle register (old vehicle classification) 2004-today new vehicle classification according to EU framework directive 2001/116/EG			1980 (Quest.) 1992 (Statistics Denmark)	1922 (Quest.) 1960 (Statistics Finland)	1991 (Quest.)
How often is the register updated?	?	Monthly		Monthly		
Are there any limitations in the data collected?						
Are there any retrofit corrections of the data?	No			No errors except the possibility of mistakes when entering data into the database	No	No
Are scrapped vehicles deleted?						

	GREECE	HUNGARY	IRELAND	ITALY	LATVIA	LITHUANIA
Since when is the register maintained?	1991	1991				2001
How often is the register updated?		Twice a year (in KSH)				
Are there any limitations in the data collected?		No				
Are there any retrofit corrections of the data?	No	No				No
Are scrapped vehicles deleted?		Normally, but it is not always the case				



	LUXEMBURG	MALTA	NETHERLANDS	SLOVAKIA	SLOVENIA	SPAIN
Since when is the register maintained?	1994	2000				1991 Mopeds since 2001)
How often is the register updated?	Monthly	Quarterly				Yearly
Are there any limitations in the data collected?						
Are there any retrofit corrections of the data?	No	No				No
Are scrapped vehicles deleted?						

	SWEDEN	UNITED KINGDOM				
Since when is the register maintained?	1923	1994				
How often is the register updated?	Daily (repr. Yearly)	Yearly				
Are there any limitations in the data collected?						
Are there any retrofit corrections of the data?	No	No				
Are scrapped vehicles deleted?						

3.2. Vehicle fleet estimation by statistical models

3.2.1. Variables, values and definitions

FRANCE

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		Coefficient (to obtain a number for the whole series of years)
	Lorry < 3,5t		Coefficient (to obtain a number for the whole series of years)
	Lorry > 3,5t		Coefficient (to obtain a number for the whole series of years)
	Bus or coach		Coefficient (to obtain a number for the whole series of years)



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Moped		-
	Motorcycle		-
	Road tractor / Agricultural tractor		Coefficient (to obtain a number for the whole series of years)
	Trailers, semi trailers and caravans		Coefficient (to obtain a number for the whole series of years)
	Other		Possibly, aggregation
Vehicle engine size	Engine size groups	(EUROSTAT: cylinder capacity)	Aggregation

4. Driver population

(Responsible partners: SWOV, ICC)

The examined countries reported collecting driver population data either by register or by survey. Twenty one countries in total reported collecting driver population data (19 in registers and two by surveys). The Tables are available in analytical form only for six out of the twenty one countries (five for registers and one for surveys).

4.1. Driver population registers

4.1.1. Variables, values and definitions

CZECH REPUBLIC

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Driver age	0-99		-
	Age groups		-
Driver gender	Male		-
	Female		-
Driver Nationality	Country names		-
	Nationality groups	Unknown groups	?
Driver license age	0-99		-
	Age groups		-
Region	Other (District)		?

ESTONIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Driver age	0-99		-
	Age groups		-
Driver gender	Male		-
	Female		-
Driver license age	0-99		-
	Age groups		-

NORWAY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Driver age	0-99		-
	Age groups		-
Driver gender	Male		-
	Female		-
Driver nationality	Country names (registered as place of birth)		-
Driver license age	0-99		-
	Age groups		-



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

Region	NUTS 3		-
	Other (lower than NUTS 3 levels)	Compatible to Eurostat LAU?	?-

POLAND

Indicator definition: Compatibility not known

Variable	Value	Value compatibility	Transformation
Driver age	0-99		-
	Age groups		-
Driver gender	Male		-
	Female		-
Driver license age	0-99		-
	Age groups		-
	Unknown		-
Region	NUTS		-

PORTUGAL

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Driver age	0-99		-
	Age groups		May be needed (age groups unknown)
Driver gender	Male		-
	Female		-
Driver license age	0-99		-
	Age groups		-

4.1.2. Methodology questions

Methodological questions on driver population by register:

	BELGIUM	DENMARK	GREECE	SPAIN	IRELAND	CYPRUS
Who is responsible for this register?	Gilles LABEEUW		Zoe Papadopoulou / National Statistical Service of Greece / dallia@statistics.gr, glenism@statistics.gr	Pilar Zori Bertolín / Dirección General de Tráfico / pzori@dgt.es	-	Soteris Kolettas, Department of Road Transport, skolettas@rtd.mcw.gov.cy TEL:+35722807100
Since when is the register maintained?	1995		Since early fifties (since the National Statistical Service of Greece was founded)	-1991		1997
How often is the register updated?		-	sporadically	-		daily
Are there any limitations in the data collected?			Age: 18 years old onwards	Geographical: Province, Comunidad Autónoma and the whole country		Age groups: 17-20, 21-34, 35-50, 51-64, 64+ and by gender
Are there any retrofit corrections of the data?			No	No		No
Are deceased drivers deleted?	-		No	-		No

	HUNGARY	MALTA	AUSTRIA	SLOVAKIA	FINLAND	SWEDEN	UK
Who is responsible for this register?		Maria Attard	Eva Dietl -Statistics Austria (eva.dietl@statistik.gv.at)	Responsible for Slovakia: Ministry of interior SR. Mistry of interior SR is responsible for Register of driver population	Juha Valtonen	Thomas Lekander	
Since when is the		2003	From 1977 to 1997 all data sheets concerning licenses (e.g. new	1993	1990	1975 Geographical: County level	1975/76



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

register maintained?			licenses, changes of personal data, new categories) from the local authorities were provided to Statistics Austria. In 1997 a new electronical system was established at Bundesrechenzentrum GmbH so called "Zentrales Führerscheinregister". Since then there have not been published any national driver population statistics. For the national statistics in future a copy of the data will be provided to Statistics Austria on a regular basis.			from 1975 and municipality level from 1990.	
How often is the register updated?		Quarterly		Continuous			
Are there any limitations in the data collected?		No	The data are existing at the central electronical register, but there is still no procedure to make them available for public statistics. For this reason up to now no one has access to even aggregated data about driver population. But if there is an EC demand for this kind of data we think data will be available.	No	No		Geographical – Great Britain only
Are there any retrofit corrections of the data?		No	Systematic error: - There is still a stock of approx. 3.5 million datasets (drivers licenses before 1997) where duplicates are possible.		No	No	
Are deceased drivers deleted?		Not always	Not always	Yes			

	PORTUGAL	ESTONIA	POLAND	CZECH REPUBLIC	NORWAY
Who is responsible for this register?	-	Kersti Anni/ Estonian Motor Vehicle Registration Centre, Kersti.Anni@ark.ee	-	-	The Norwegian Public Roads Administration
Since when is the register maintained?	1991	1995	2004	-	1991
How often is the register updated?	Annually	-	Off line	-	Annually
Are there any limitations in the data collected?	For all vehicles type except mopeds.	No	-	-	No
Are there any retrofit corrections of the data?	No	No	No	No	No
Are deceased drivers deleted?	-	Yes	No	-	No, they remain in the register for 10 years

4.2. Driver population estimated by surveys

4.2.1. Variables, values and definitions

GERMANY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Driver age	0-99		-
	Age groups		-
Driver gender	Male		-
	Female		-
Driver license age	0-99		-
	Age groups		-

FRANCE

Indicator definition: Compatibility not known

Variable	Value	Value compatibility	Transformation
Driver age	0-99		-
	Age groups		-
Driver gender	Male		-
	Female		-
Driver license age	0-99		-
	Age groups		-

THE NETHERLANDS

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Driver age	Age groups		-
Driver gender	Male		-
	Female		-
Region	NUTS	NUTS 3	-
Driver Nationality	Country names	Dutch only	-

5. Vehicle kilometres

(Responsible partner: NTUA)

The examined countries collect vehicle kilometres by surveys, traffic counts, registers, combinations of methods, statistical models and other methods.

5.1. Vehicle kilometres estimated by surveys

5.1.1. Variables, values and definitions

DENMARK

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Area type	Inside urban area		-
	Outside urban area		-
Day of week			-
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
	Road tractors		-
	Others		-

GERMANY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry<3,5t		-
	Lorry<3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
	Tractors		?
	Other vehicles		?
Fuel type	Gasoline		Variable not available in CARE
	Diesel		Variable not available in CARE

ESTONIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Seat belt use	Yes/no		-



FRANCE

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
Road type	Motorway (yes/no)		?

NORWAY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Driver age	0-99		-
Driver gender	Age groups		-
	Male		-
Vehicle type	Female		-
	Passenger car		Available for "private cars" in general
Area type	Lorry < 3,5t		Not available
	Lorry > 3,5t		Not available
	Moped	(partially available)	?
Year/month/day/hour	Motorcycle	(partially available)	?
	Inside urban area		Not available
Day of week	Outside urban area		Not available
	1-12/1-31/0-23		-
Day of week	Day of week		-

AUSTRIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry<3,5t		-
	Lorry<3,5t		-
Road type	Motorway		?
	Road type groups		Incompatible
Year	2002, forecasts after this year		-

PORTUGAL

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Road type	Motorway (possibly)		?
	Road type groups		?

SLOVENIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
Area type	Inside urban area		-



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Outside urban area		-
Road type	Motorways		?
	All public roads		Not available in CARE
Driver nationality	Nationality groups		?

SLOVAKIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-

SWEDEN

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Motorcycle		-
Driver age	Age groups		?

5.1.2. Methodology questions

Methodological questions on vehicle kilometres by survey:

	DENMARK	PORTUGAL	FRANCE	NORWAY
Who is responsible for this survey?	Statistics Denmark	-	INSEE-INRETS	TOI
Since when is the survey carried out?	1981	-	1966	1984
How often is the survey carried out?	Monthly	-	1966/1967 1973/1974 1981/1982 1993/1994. No more recent version	Every 4 years
When were the last two surveys carried out?		-	1981/1982 1993/1994	2001, 2005
What is the target group number?		-	?	-
What is the coverage rate of the survey?		-	?	-
What is the sample size of the survey (number of households / persons)?		-	14150	17.514 persons
What is the type of the survey?	Telephone interviews	-	Face to face interview	Telephone interviews
What is the response rate of the survey?		-	?	50%-
Are there any sample limitations on person age / nationality etc?	10-84 years of age	-	Over 5 years old, one member per household	Over 12 years
Are there any geographical limitations? None mentioned	No	-	None mentioned	No
Are there any limitations on the type of trips?	No	-	None mentioned	Only private trips. However total number of kilometres driven during work and/or by professional drivers are also collected
What is the respondent's length of time covered by the survey?		-	One weekday + one weekend, just before the interview	The day before the interview
What is the duration of the survey?		-	None mentioned	One year
Are there any known errors in the exposure estimates?		-	None mentioned	For small groups like two-wheelers random variation is large. Some problems also related to distinguishing relevant pedestrian

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

				and bicycle traffic – not every trip is on roads/in traffic environment
Are there any retrofit corrections of the exposure estimates?	It was decided that the 1980-time series shall be corrected on the basis of the odometer readings method	-	None mentioned	Not of the exposure measures generated from travel surveys.

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	ESTONIA	GERMANY	AUSTRIA
Who is responsible for this survey?	STRATUM Ltd, Dago Antov, dax@stratum.ee	German Institute for Economic Research (DIW)	Austrian Motorway Operator (ASFINAG) and Federal Ministry of Transport (bmvit)
Since when is the survey carried out?	2000 - 2004 Since 2005 not used, as better information is retrieved from Estonian Motor Vehicle Registration Centre	1993	in this form since 2002 + forecasting horizons
How often is the survey carried out?	Yearly	1993, 2002	only 1 time in the year 2002; for the following years forecasts were made
When were the last two surveys carried out?	2003, 2004	1993, 2002	see above
What is the target group number?	-	-	no information
What is the coverage rate of the survey?	-	-	
What is the sample size of the survey (number of households / persons)?	>1000 households	-	
What is the type of the survey?	-	-	
What is the response rate of the survey?	-	-	
Are there any sample limitations on person age / nationality etc?	-	-	
Are there any geographical limitations?	-	-	The calibration of the model is done for the main road network. The traffic assignment only consider the transborder traffic between the defined traffic cells (NUTS 5). The intra zonal traffic is estimated. The magnitude of those possible errors cannot be estimated.
Are there any limitations on the type of trips?	-	-	
What is the respondent's length of time covered by the survey?	-	-	
What is the duration of the survey?	-	-	The main reason of the transport model is forecasting transport and evaluating infrastructure changes. The data on vehicle performance can be considered as a by-product. Thus, no time series are available. However, the date can be considered as relevant to enable a comparison with other data on road vehicle performance.
How is the exposure indicator calculated from the survey data?			National Transport Model: based on a four-step transport model (trip generation, trip distribution, modal split and trip assignment); the kilometres for passenger

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

			and goods transport are transformed into vehicle kilometres and calibrated by traffic counts. The latest updating of the national transport model currently is done within the project "Transport Forecast for Austria 2025+".
Are there any known errors in the exposure estimates?	-	-	No
Are there any retrofit corrections of the exposure estimates?	-	-	

	SLOVENIA	SLOVAKIA	SWEDEN
Who is responsible for this survey?	-	Statistical Office of the Slovak Republic, Jana Luttmerdingova, jana.luttmerdingova@statistics.sk	-
Since when is the survey carried out?	-	2000	-
How often is the survey carried out?	-	Annually	-
When were the last two surveys carried out?	-	2004, 2005	-
What is the target group number?	-	Enterprises registered in the business register. Exhaustive annually surveys are carried out for enterprises with 20 and more employees. For small enterprises, sample surveys are carried out annually	-
What is the coverage rate of the survey?	-		-
What is the sample size of the survey (number of households / persons)?	-	NACE, number of persons	-
What is the type of the survey?	-	Questionnaire	-
What is the response rate of the survey?	-	In enterprises with 20 and more employees is 100% and in enterprises less than 20 employees is made grossing-up for all population	-
Are there any sample limitations on person age / nationality etc?	-	-	-
Are there any geographical limitations? None mentioned	-	-	-
Are there any limitations on the type of trips?	-	-	-
What is the respondent's length of time covered by the survey?	-	-	-
What is the duration of the survey?	-	3 months	-
How is the exposure indicator calculated from the survey data?	-	on the base of statistical methods	-
Are there any known errors in the exposure estimates?	-	-	-
Are there any retrofit corrections of the exposure estimates?	-	-	-



5.2. Vehicle kilometres estimated by traffic counts:

5.2.1. Variables, values and definitions

CZECH REPUBLIC

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
Road type	Other		?
	Motorway (yes/no)		?
	Road type groups		?

DENMARK

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Road type	Motorway		-
	Semi motorways		-
	Other state roads		-
Year	Year		?

ESTONIA

Indicator definition: Incompatible (bicycles, mopeds, motorcycles and trams not included)

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry<3,5t		-
	Lorry>3,5t		-
	Bus or coach		-
Area type	Inside urban area		-
	Outside urban area		-
Road type	Road type groups		?
Year/month/day/hour	Year/1-12/1-31/0-23		-

FRANCE

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-

HUNGARY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Lorry<3,5t		-
	Lorry>3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
Road type	Motorway		?
	Road type groups: motorways, first category main roads, second category main roads, connecting roads, access roads, railway station access roads, intersection legs		?
Year / Month	Year/1-12		

NORWAY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		?
Area type	Inside urban area		Not available
	Outside urban area		Not available
Road type	Motorway (yes/no)		?
	Road type groups	For national roads dark green. Counts are also conducted on regional roads but not as comprehensively.	-
Year/month	Year/month		-

POLAND

Indicator definition: Compatibility not known

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
	Other		?
Road type	Motorway (yes/no)		?
	Road type groups (National, regional, district roads)		Not available in CARE / Eurostat
Year / month / weekday			-

SLOVENIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Moped		-
	Motorcycle		-
	Road tractors		-
Area type	Inside urban area		-
	Outside urban area		-
Road type	Motorways		?
	All public roads		Not available in CARE / Eurostat
	Country roads		Not available in CARE / Eurostat
	A-level roads outside urban areas		Not available in CARE / Eurostat
	Other roads outside urban areas		Not available in CARE / Eurostat
Driver nationality	Nationality groups		?
Vehicle registration country	National		-
	Foreign		-

FINLAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Road type	Motorway		-
	Road type groups		?

SWEDEN

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Road type	Motorways		?
	Road type groups		?

UNITED KINGDOM

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
	Other		?
Area type	Inside urban area		-
	Outside urban area		-
Road type	Motorways		?
	Road type groups		?
Region	NUTS 1		-
	NUTS 2		-
	NUTS 3		-
Year	Year		-



Project co-financed by the European Commission, Directorate-General Transport and Energy

5.2.2. Methodology questions

Methodological questions on vehicle kilometres by traffic counts:

	DENMARK	POLAND	CZECH REPUBLIC	ESTONIA	FRANCE	NORWAY
Since when is the system operational?	1980	1969	-	-	-	1985
What types of network / road are included in the traffic counts system?	All public roads	National and regional roads	-	-	-	Public national roads and regional roads
What is the coverage rate on this type of network?	-	100% and 98%	-	-	-	
Are urban roads covered?	Yes	Yes	-	-	-	Yes, if defined as national or regional road
At what percentage are urban roads covered?	-	50%	-	-	-	
Is there a rotation system?	Partly	No	-	-	-	Yes, counts are carried out at approximately 2000 counting stations per year.
Is data recorded manually or automatically?	-	Manually	-	-	-	Automatically
What is the total number of counting stations?	-	4500	-	-	-	8000
What is the number of permanent stations?	300	100	-	-	-	Approximately 300
What type of information is obtained from permanent stations?	Vehicle groups	Nr of vehicles	-	-	-	AADT, vehicle size, vehicle weight, speed, distance between vehicles
Are there separate measurements at intersection branches?	No	No	-	-	-	-
What type of information is obtained from the traffic counts system?	-	-	-	-	-	AADT, vehicle size, vehicle weight, speed, distance between vehicles
How is the exposure indicator calculated from the above information?	-	-	-	-	-	AADT multiplied by 365 and road length
Are there any know	-	3%for	-	-	-	Yes, random

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

errors in the exposure estimates?		national road, 6% regional road, 12-30% for other				variations according to counting periods.
How often are the estimates updated (annually, other)?	Annually	5 years	-	-	-	Traffic volume estimates every year, traffic index every month

	HUNGARY	SLOVENIA	FINLAND
Who is responsible for this system (organization, contact person)?	ÁKMI Kht	Directorate of the Republic of Slovenia for Roads (DRSR) at the Ministry of Transport	Finnish Road Administration
Since when is the system operational?	1995	-	-
What types of network / road are included in the traffic counts system?	The observation posts are installed on motorways as well as on motor roads, first category main roads, second category main roads, connecting roads, access roads, railway station access roads, intersection legs.	Urban, rural, motorways	Public roads only
What is the coverage rate on this type of network?	20% of public roads	-	-
Are urban roads covered?	No	Yes	-
At what percentage are urban roads covered?	-		
Is there a rotation system?	Yes (rolling system)	-	Yes. Public roads are divided in 4 groups, therefore the whole public road network is covered within four years
Is data recorded manually or automatically?	Both	Both	-
What is the total number of counting stations?	4000	945 stations, 558 of which are either manual or automatic. The rest are estimated count points.	-
What is the number of permanent stations?	-	-	-
What type of information is obtained from permanent stations?	The observation (the manual counting) is settled on a given period of a day, and with the use of some coefficients (monthly factor, part of a day,	AADT	-



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	weekday factor) is calculated an average daily traffic for different vehicle categories.		
Are there separate measurements at intersection branches?	Yes	-	
What type of information if obtained from the traffic counts system?	AADT	-	AADT
How is the exposure indicator calculated from the above information?	For every road a "validity section" (an average length) is established and form the multiplication of the length and the traffic the vehicle kilometre is calculated	Vehicle kilometres are obtained by multiplying the number of vehicles counted on the counting points (AADT) with the length of the road section.	Once the annual average daily traffic has been estimated for an individual homogeneous road section, its annual vehicle kilometres are obtained by multiplying its daily traffic by its length and the number of days in the year.
Are there any know errors in the exposure estimates?	Not any statistical error calculation has been made yet	1) Counting on entry and exit lanes is not included. 2) Counting points are mostly located outside urban areas, which underestimates the volume of traffic on the whole section. 3) Traffic on estimated counting points is obtained individually with the help of traffic flows on nearby sections and no fixed model is used.	-
How often are the estimates updated (annually, other)?	-	-	Annually

	SWEDEN	UNITED KINGDOM
Who is responsible for this system (organization, contact person)?	-	Department of Transport (DfT)
Since when is the system operational?	-	Since 1993
What types of network / road are included in the traffic counts system?	-	All network types. Divided into major and minor network. The major roads are split into five road classes: motorways, trunk roads and principal roads with the latter two divided into urban and rural roads. Urban roads are defined as those within the boundaries of the



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

		Urban Area polygons for settlements of 10,000 population or more, based on the 2001 Population Census. On the outskirts of urban areas, bypasses are normally treated as rural even if part of the road may lie within the urban area polygon. Conversely, roads between urban areas with short lengths outside the polygons are normally treated as urban. Minor roads are divided into 6 classes: B class, C class and U (unclassified) roads, each sub-divided into urban and rural.
What is the coverage rate on this type of network?	-	-
Are urban roads covered?	-	Yes
At what percentage are urban roads covered?	-	-
Is there a rotation system?	-	-
Is data recorded manually or automatically?	-	Both
What is the total number of counting stations?	-	160 automatic, outside London. Manual: 5100 sites for major roads and 4500 sites for minor roads
What is the number of permanent stations?	-	160 (automatic stations)
What type of information is obtained from permanent stations?	-	The traffic is classified by vehicle type. The automatic counting equipment recognizes 22 different types of vehicle
Are there separate measurements at intersection branches?	-	-
What type of information is obtained from the traffic counts system?	-	-
How is the exposure indicator calculated from the above information?	-	Different procedures are used for major and minor roads in converting Average Annual Daily Flow data to traffic estimates. A major road link of length 2km with an AADF of 50,000 has a traffic figure of 100,000 vehicle kilometres (2*50,000). This equates to 36.5 million vehicle kilometres a year. Because every major road link is counted, in principle, total traffic on major roads can be obtained by summing the traffic figures for every link. Some links are not counted. In these cases, the traffic flows are derived from adjacent links using suitable formulae (derived links) or using the flow of the adjacent link as a proxy (dependent links). In the base year (currently 1999), for each minor road class in each local authority an AADF is estimated based on a sample of traffic counts, including those projected forward from counts done in earlier years. These AADFS are then multiplied by the total road length for the relevant minor road category to give an estimate of traffic for that road category. Traffic for the latest year is then obtained by calculating changes in traffic flows, after taking into account any changes in road length. For the 2000 to 2003 estimates, the flows were derived from the automatic road counts. For the 2004 estimates, traffic flows from the manual counts were used. This is plausible, since some of the newest will be quiet roads on housing estates whilst others will be busy roads recently declassified from major road status.
Are there any known errors in the exposure estimates?	-	-



How often are the estimates updated (annually, other)?	-	Annually
--------------------------------------------------------	---	----------

5.3. Vehicle kilometres estimated by statistical models:

5.3.1. Variables, values and definitions

BELGIUM

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Road type	Motorway		?
	Road type groups		?

ESTONIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Lorry<3,5t		-
	Lorry>3,5t		-
	Bus or coach		-

FINLAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Bus or coach		-
	Lorries		?
	Vans		?

UNITED KINGDOM

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry<3,5t		-
	Lorry>3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
	Other		?

5.3.2. Methodology questions

Methodological questions on vehicle kilometres by statistical models:

	BELGIUM	FINLAND	ESTONIA	UNITED KINGDOM
Who is responsible for this model?	-	-	Statistics Estonia	-



Please provide a description of the method and any other information not covered by the questions below.	-	Simple regression models were constructed for calculating annual changes (using 1998 as a base year) in the vehicle kilometres of light and heavy automobiles.	-	-
Since when is the method used?	-	Since 1998	-	-
Are there any limitations (sample etc.) in the use of the method?	-	Only passenger cars, vans, lorries and buses are covered	-	-
What type of information is obtained from the method?	-	Annual vehicle kilometres	-	-

5.4. Vehicle kilometres estimated by combination of methods:

5.4.1. Variables, values and definitions

BELGIUM

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry > 3,5t		-
	Bus or coach		-
Vehicle age	Age groups		?

CZECH REPUBLIC

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry > 3,5t		-
	Bus or coach		-
Vehicle age	Age groups	groups unknown	?

ESTONIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-
Area type	Inside urban area		-

FRANCE

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-



LATVIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		
	Lorry > 3,5t		-
	Bus or coach		-
Vehicle age	Age groups		?

THE NETHERLANDS

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
	Other: Pedestrian, Bicycle		-
	Day of week	Monday to Sunday	
Year/month/day/hour	Year/1-12/1-31/0-23		-
Driver age	0-5,6-11,12-14,15-17,18-19, 20-24, 25-29, 30-39, 40-49, 50,59, 60-64, 65-74, 75-79, >80		Aggregations
Driver gender	Male		-
	Female		-
Vehicle age	Years		-
Hour of the day	Hours		-
Driver nationality	Only national (Dutch)		-

NORWAY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-

UNITED KINGDOM

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		
	Lorry > 3,5t		-
	Bus or coach		-
Vehicle age	Age groups		?



5.4.2. Methodology questions

Methodological questions on vehicle kilometres by combination of methods:

	BELGIUM	FRANCE	CZECH REPUBLIC	THE NETHERLANDS	NORWAY	ESTONIA	UNITED KINGDOM
Since when is the combination of methods used?	-	-	-	Data are mainly based on a travel survey. This survey is carried out since 1985	-	1996	-
What type of information is obtained from each one of the methods?	-	-	Data are collected from transport operators for all public transport modes, data on passenger car transport are estimated with the use of vehicle kilometres and expected average occupancy rate.	-	Vehicle numbers from registers. Yearly driving distance from national travel surveys or by other methods	Counting and modelling data	-
How is the exposure indicator calculated from the combination of methods?	-	-	The data from transport operators and the estimated passenger car travel add up to the national estimate.	-	Calculation of traffic volumes for different vehicle types are done by multiplying average yearly traffic volume by the number of vehicles	Calculations based on traffic counts in main, basic and secondary roads, based on estimation in local and private roads and on modelling in urban area	-
Are there any known errors in	-	-	-	-	Yes, the figures used for	No	-

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

the exposure estimates ?					average yearly driving distance are old for some vehicle types.		
Are there any retrofit corrections of the exposure estimates ?	-	-	-	-	Yes, when new estimates of average yearly distances appear (new surveys etc.) exposure estimates are retrofit corrected	Yes	-

5.5. Vehicle kilometres estimated by other methods:

5.5.1. Variables, values and definitions

BELGIUM

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Taxi		-
	Lorry		?
	Lorry		?
	Bus		-
	Van		-
Vehicle age	Years		-
Year	year		-
Vehicle weight	tones (<1, 1-1.5, 1.5-2, 2-3.5, 3.5-6, 6-7.5, 7.5-16, >16)		Variable not available in CARE
Fuel type	Petrol		Variable not available in CARE
	Diesel		Variable not available in CARE

DENMARK (odometer readings)

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-
Road type	Motorway		?
	Road type groups		?

FINLAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
Driver age	Age groups		?
Driver gender	Male		-
	Female		-
Vehicle age	Age groups		?

SWEDEN (calculation of each vehicle's yearly mileage)

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry<3,5t		-
	Lorry>3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
Road type	Motorway		?
	Road type groups		?



5.5.2. Methodology questions

Methodological questions on vehicle kilometres by other methods:

	BELGIUM
Please provide a description of the method and any other information not covered by the questions below.	The five-year traffic census vehicle kilometres estimates are used (obtained by traffic counts). The method is described in detail in the report "Recensement de la circulation 2000", N° 18 published by the Ministry of Communications and Infrastructure of Belgium. (available in www.mobilit.fgov.be)
Since when is the method used?	National estimates are available every five years since 1970. Regional estimates are available every five years since 1985.
Are there any limitations (sample etc.) in the use of the method?	-
What type of information is obtained from the method?	-
How is the exposure indicator calculated from the method?	-
Are there any known errors in the exposure estimates?	The errors concerning vehicle kilometres estimates should be available in the related documents. A comparison with the results of a survey on Belgian household mobility (1999-2000) survey indicated a 5% error.
Are there any retrofit corrections of the exposure estimates?	-

	DENMARK
Who is responsible for this system (organization, contact person)?	National Road Safety and Transport Agency (all private inspection companies report to this agency). Road Directorate (counts)
Please provide a description of the method and any other information not covered by the questions below.	
Since when is the method used?	2001
Are there any limitations (sample etc.) in the use of the method?	Odometer accuracy, possibility of adjusted odometers, kilometres driven abroad
What type of information is obtained from the method?	traffic volume, yearly traffic per vehicle
How is the exposure indicator calculated from the method?	For each inspected vehicle, the amount of driven kilometres since the previous vehicle inspection are calculated. Afterwards, the traffic per day during the specific period is calculated. For all vehicles in the same strata (type, year of first registration, vehicle weight, fuel and in some cases use of the vehicle), the average daily traffic is calculated. This figure is multiplied by the number of days in a year and by the number of registered vehicles in the strata. Thereby, the road traffic volume for a specific vehicle type has been determined. The total road traffic volume is determined by the sum of the road traffic volume of the approximately 600 strata which the data material has been divided into.
Are there any known errors in the exposure estimates?	
Are there any retrofit corrections of the exposure estimates?	On November 2004, it was decided to calculate a revised time series for the period 1980 to 2003 according to this new method



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	SWEDEN
Please provide a description of the method and any other information not covered by the questions below.	The statistics are produced by calculating a yearly driving distance for (in principal) each registered vehicle in Sweden. The driving distances are calculated for a certain calendar year (such as 2004, 2003, etc.). For these calculations, Statistics Sweden uses data from two main sources: 1) The compulsory annual inspections made by the Swedish Vehicle Inspection Company (SBP); 2) Administrative data for each registered vehicle in Sweden from the Swedish Road Administration (VV). The two sources are combined by using the unique registration (license plate) number which exists for all registered vehicles in Sweden. Based on the combined data, the yearly driving distance for each vehicle has been calculated.
Since when is the method used?	Since 1998
Are there any limitations (sample etc.) in the use of the method?	
What type of information is obtained from the method?	Yearly mileage for every registered vehicle in Sweden
How is the exposure indicator calculated from the method?	-
Are there any know errors in the exposure estimates?	1) The mileage figure containing an extra zero or missing zero (for example 30,000 kilometres when it should be 3,000). 2) The kilometre reader for a certain vehicle reaches its maximum value and restarts at zero. 3) Some generally incorrectly registered vehicle mileages
Are there any retrofit corrections of the exposure estimates?	When a possible error is found, it is usually corrected automatically (using certain predefined criteria). If the error is considered to be severe, the vehicle is simply excluded from the calculations.

6. Person kilometres

(Responsible partner: TØI)

6.1. Person kilometres estimated by survey

6.1.1. Variables, values and definitions

DENMARK

Indicator definition: Compatible.

Variable	Value	Value compatibility	Transformation
Person class	Driver		-
	Passenger		-
	Pedestrian		-
Person age	16-74 until 1997		-
	10-84 from 1998		-
Person gender	Male/female		-
Vehicle type	Passenger car		?
	Lorry < 3,5t		Lorries and van comprise the same value?
	Lorry > 3,5t		
	Bus or coach		?
	Moped		?
	Motorcycle		?
	Bicycle		?
	Area type	Inside urban area	
	Outside urban area		?
Year/month/day/hour	Year/weekday/weekend		-

GERMANY

Indicator definition: Person kilometre data cover passenger traffic only.

Variable	Value	Value compatibility	Transformation
Person class	Driver		-
	Passenger		-
	Pedestrian		-
Person age	0-99		-
Person gender	Male/female		-
Vehicle type	Passenger car		Type of car cannot be specified
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		?
	Moped		?
	Motorcycle		?
Area type	Inside urban area		-
	Outside urban area		-
Road type	Motorway (yes/no)		-
	Road type groups		-
Year/month/day/hour	Year/weekday/weekend		-

THE NETHERLANDS

Indicator definition: Compatibility assumed.

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Pedestrian		
Person age	0-99		
	Age groups		
Person gender	Male/female		
Vehicle type	Passenger car		
	Lorry < 3,5t		
	Lorry > 3,5t		
	Bus or coach		
	Moped		
	Motorcycle		
Area type	Bicycle		
	Inside urban area		
Road type	Outside urban area		
	Motorway (yes/no)		
Year/month/day/hour	Road type groups		
	year/1-12/1-31/0-23		

NORWAY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver (c)		
	Passenger (c)		
	Pedestrian (c)		
Person age	13-99		
Person gender	Male /female		
Vehicle type	Car		?
	Lorry < 3,5t		
	Lorry > 3,5t		
	Bus or coach		
	Moped		
	Motorcycle		
Area type	Bicycle		
	Inside urban area		
Road type	Outside urban area		
	Motorway (yes/no)		
Year	Road type groups		
	Year/1-12/1-31/0-23		-

POLAND

Indicator definition: Not compatible (covers only urban areas in the Warsaw region)

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Pedestrian		
Person age	0-99		
	Age groups		
Person gender	Male/female		



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

Vehicle type	Passenger car		
	Lorry < 3,5t		
	Lorry > 3,5t		
	Bus or coach		
	Moped		
Area type	Motorcycle		
	Inside urban area		
	Outside urban area		
Road type	Motorway (yes/no)		
	Road type groups		
Year/month/day/hour	Year/1-12/1-31/0-23		

SLOVAKIA

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Pedestrian		
Person age	0-99		
	Age groups		
Person gender	Male/female		
Vehicle type	Passenger car		
	Lorry < 3,5t		
	Lorry > 3,5t		
	Bus or coach		
	Moped		
Area type	Motorcycle		
	Inside urban area		
	Outside urban area		
Road type	Motorway (yes/no)		
	Road type groups		
Year/month/day/hour	Year		

FINLAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Pedestrian		
Person age	15-74		
Person gender	Male/female		
Vehicle type	Passenger car		
	Lorry < 3,5t		
	Lorry > 3,5t		
	Bus or coach		
	Moped		
	Motorcycle		
	Bicycle		
	Area type	Inside urban area	
Area type	Outside urban area		
	Road type	Motorway (yes/no)	
Road type	Road type groups		
	Year/month/day/hour	Year	



Project co-financed by the European Commission, Directorate-General Transport and Energy

SWEDEN

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver (c)		
	Passenger (c)		
	Pedestrian (c)		
Person age	6-84		
Person gender	Male/female		
Vehicle type	Passenger car (c)		
	Lorry < 3,5t		
	Lorry > 3,5t		
	Bus or coach		
	Moped		
	Motorcycle		
	Bicycle (c)		
Area type	Inside urban area		
	Outside urban area		
Road type	Motorway (yes/no)		
	Road type groups		
Year/month/day/hour	Year/1-12/1-31/0-23		

UNITED KINGDOM

Indicator definition: Compatible (for Great Britain only)

Variable	Value	Value compatibility	Transformation
Person class	Driver (c)		
	Passenger (c)		
	Pedestrian (c)		
Person age	6-84		
Person gender	Male/female		
Vehicle type	Passenger car (c)		
	Lorry < 3,5t		
	Lorry > 3,5t		
	Bus or coach		
	Moped		
	Motorcycle		
	Bicycle (c)		
Area type	Inside urban area		
	Outside urban area		
Road type	Motorway (yes/no)		
	Road type groups		
Year/month/day/hour	Year/1-12/1-31/0-23		



6.1.2. Methodology questions

Methodological questions on person kilometres by survey:

	DENMARK	GERMANY	THE NETHERLANDS	POLAND	SLOVAKIA
Since when is the survey carried out?	1981	1994, since 1999 the whole country	1978, redesigned in 1999	Urban mobility survey since 1993	1993
How often is the survey carried out?	Continuously (not in 2004 and 2005)	Annually	Continuously	1993, 1998, 2005	Monthly
When were the last two surveys carried out?	2003, 2006, 2007	2005, 2006			
What is the target group number?					
What is the coverage rate of the survey?				Covers only urban areas	
What is the sample size of the survey (number of households / persons)?	2100 per month	750 households, equivalent to 1500 persons	65 000		Motorcoach, bus and tram travel among enterprises with 20 or more employees.
What is the type of the survey?	Internet and telephone	Telephone and booklet (mobility diary), panel over three years	Mail and telephone	Paper questionnaire	
What is the response rate of the survey?	50%		Ca. 70 %		
Are there any sample limitations on person age / nationality etc?	Covers people in the age bracket 10-84 years	No	No	No	
Are there any geographical limitations?	No, the sample is weighed to ensure geographical representativeness	No	No	Covers only urban areas	No
Are there any limitations on the type of trips?	In principle no, includes daytrips (not professional), professional trips, long-distance trips and "Øresund-trips" i.e. between Denmark and Sweden	No	No	-	Yes, only bus, coach and tram
What is the respondent's length of time covered by the survey?	People are asked about all the travels they made the previous day	One week	People are asked about all the travels they made the previous day	-	

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

What is the duration of the survey?	Continuously	One year	Continuously	2 months	
How is the exposure indicator calculated from the survey data?	The amount of traffic by vehicle groups weighted to give a yearly figure for the whole country.	Data are weighted		-	Data are weighted according to the number of enterprises in NUTS areas
Are there any known errors in the exposure estimates?	Data are weighed to ensure representative samples, according to gender, age, geography, marital status and living conditions	Self selection problems are known and dealt with	Self selection problems are known and dealt with	Yes. Data from household survey are considered unreliable.	
Are there any retrofit corrections of the exposure estimates?	Not known	Not known		-	

	FINLAND	SWEDEN	UK	NORWAY
Since when is the survey carried out?	1974	1978, from 2003 a new survey design	1951	1985
How often is the survey carried out?	Monthly after 2000	4 years, but supplemented with a less comprehensive National communication survey (NCS) after two years	Continuously (from 1988)	4 years
When were the last two surveys carried out?		2005/2006, 2003/2004 (NCS)		2001, 2005
What is the target group number?				43699, i.e. the number of persons drawn from the national register, that one tried to reach.
What is the coverage rate of the survey?				79,2 per cent
What is the sample size of the survey (number of households / persons)?	2200 persons each month	40 000 (the full survey) and 11 000 (the lesser NCS)	15230 households (2002)	34595 persons (79,2 per cent of 43699)
What is the type of the	Telephone	Telephone		Telephone



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

survey?				
What is the response rate of the survey?		App. 70 %	App. 65%	50%
Are there any sample limitations on person age / nationality etc?	15-74 years, (above 6, according to the grids, but not verified in documentation from Statistics Finland).	6-84 years	No	13-99 years. In the survey from 2005 a sub sample of children 6-12 years is included with a less comprehensive questionnaire.
Are there any geographical limitations?	No	No	Restricted to Great Britain. Scottish isles and Scilly not included.	No, the survey covers the whole country, but there are additional sub samples in some regions.
Are there any limitations on the type of trips?	It seems that the Finnish travel survey does not cover every small trip. Trips are not defined as in DK, SE and NO.	No	Professional driving is not included (?)	Yes. Only private travels are in principle covered. In the last two surveys professional drivers were also asked how many kilometres they drove as professional drivers during the register day.
What is the respondent's length of time covered by the survey?		People are asked about all the travels they made the previous day		People are asked about all the travels they made the previous day
What is the duration of the survey?		1 year	One week, sample spread over the year	1 year
How is the exposure indicator calculated from the survey data?	Documentation of how (whether?) person kilometres are calculated is missing.	After the revision in 2003 the latest survey from 2005/2006 has recently been published. Unclear whether personkm has been calculated.	Data are weighted according to age/sex and region population estimates	Directly (calculating total distances travelled by multiplying average distance travelled with the number of persons).
Are there any known errors in the exposure estimates?			Yes, errors are documented	It is difficult to calculate reliable exposure data for transport means that are rarely used in Norway like motorcycles. The data set is normally not large enough to estimate risk by age and gender for other road users than car drivers and pedestrians.
Are there any retrofit corrections of the exposure estimates?				Yes, the National Travel Survey is only conducted every 4th year. For pedestrians and bicyclists, this is the only source of exposure data, thus no estimates for intervening years.

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

				For motor vehicles, estimates of intervening years are calculated based on the number of vehicles. When new results from the National Travel survey appear, person kilometres for earlier years (without travel survey data) are corrected.
--	--	--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

6.2. Person kilometres estimated by traffic counts

Person kilometres are not collected by traffic counts alone in any country. However, a number of countries utilize traffic counts to estimate person kilometres by combining traffic counts with estimated occupancy rates. This is described in the following section.

6.3. Person kilometres estimated by combination of methods:

6.3.1. Variables, values and definitions

BELGIUM

Indicator definition: Bicycles and mopeds not included in the definition

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Pedestrian		
Person age	0-99/age groups		
Person gender	Male		
	Female		
Vehicle type	Passenger car		
	Bus or coach		
	Motorcycle		
	Moped		
Area type	Bicycle		
	Inside urban area		
Road type	Outside urban area		
	Motorway		
Year/month/day/hour	Road type groups		
	Year		

CZECH REPUBLIC

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
Vehicle type	Passenger car		
	Bus or coach		
	Motorcycle		
	Moped		
Mode of travel	Urban public transport (c)		?
	Individual road passenger transport (c)		Possibly with aggregation (but definition should be given)
Year/month/day/hour	Year/1-12/1-31/0-23 (c)		-

GERMANY



Project co-financed by the European Commission, Directorate-General Transport and Energy

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Pedestrian		
Person age	0-99		
	Age groups		
Person gender	Male/female		
Vehicle type	Passenger car		
	Bus or coach		
	Moped		
	Motorcycle		
	Bicycle		
Area type	Inside urban area		
	Outside urban area		
Road type	Motorway (yes/no)		
	Road type groups		
Year/month/day/hour	year/1-12/1-31/0-23		

NORWAY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Pedestrian		
Person gender	Male/female		
Person age	0-99/age groups		
Vehicle type	Car		
	Bus or coach		
	Motorcycle		
	Moped		
	Bicycle		
Area type	Inside urban area		
	Outside urban area		
Road type	Motorway		
	Road type groups		
Year/month/day/hour	Year		

POLAND

Indicator definition: Compatibility assumed.

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Pedestrian		
Person age	Age groups		
Person gender	Male/female		
Vehicle type	Passenger car		
	Bus or coach		
	Lorry < 3,5t		
	Lorry > 3,5t		
	Moped		
	Motorcycle		
	Bicycle		
	Area type	Inside urban area	



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Outside urban area		
Road type	Motorway (yes/no)		
	Road type groups		
Year/month/day/hour	Year		

SWEDEN

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Pedestrian		
Person age	0-99/age groups		
Person gender	Male		
	Female		
Vehicle type	Passenger car		
	Bus or coach		
	Motorcycle		
	Moped		
	Bicycle		
Area type	Inside urban area		
	Outside urban area		
Road type	Motorway		
	Road type groups		
Year/month/day/hour	Year		

6.3.2. Methodology questions

	BELGIUM	CZECH REPUBLIC	GERMANY	POLAND	SWEDEN	NORWAY
Which are the methods combined to produce the exposure estimates ?	The methodology consists in multiplying the vehicle km (cars, motorcycles, buses and coaches) by an estimation on the number of persons by vehicle. This estimation is essentially based on the records of the road traffic injuries (with some little corrections).	Data from public transport operators, private transport estimation.	The results rely on model calculation, their empirical basis consists of official statistics, road performance calculation of the DIW Berlin, a national survey on behaviour in traffic and a mobility panel running since 1994	Traffic counts, by manual observations, automatic traffic registrations and mobility surveys	Measures of vehicle km aggregated to national figures based on a model, with input data from odometer readings and traffic counts. Estimates of average number of passengers.	Vehicle km is estimated for different vehicle types by different methods, surveys, traffic counts etc. Occupancy rates are estimated with data from the national travel surveys and linear developments in rates are assumed between travel survey years.
What type of information is obtained from each one of the methods?		Data are collected from transport operators for all public transport modes, data on passenger car transport are estimated with the use of vehicle kilometres and expected average occupancy rate.		Traffic counts: ADT for vehicle types/road types/regions. Mobility surveys: data on pedestrian trips, trips with public transport	Data on passenger car transport are estimated with the use of vehicle kilometres and estimates of average occupancy rate.	Data on passenger car transport are estimated with the use of vehicle kilometres and estimates of average occupancy rate.
How is the exposure indicator calculated from the combination of methods?		The data from transport operators and the estimated passenger car travel add up to the national estimate.		Documentation has not been available.	Vehicle kms multiplied by occupancy rates for different vehicles	Vehicle kms multiplied by occupancy rates for different vehicles

7. Number of trips

(Responsible partners: CETE-SO, INRETS)

The Tables are available in analytical form only for two countries.

7.1. Number of trips estimated by surveys

7.1.1. Variables, values and definitions

NORWAY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver		-
	Passenger		-
	Pedestrian		-
	Cyclist		-
Person age	0-99 (partially available, >12 years old)		-
	Age groups (partially available)		-
	Unknown (partially available)		?
Person gender	Male		-
	Female		-
Vehicle type	Passenger Car		Private cars only
	Motorcycle		-
	Bicycle		-
Year	Annual		-

POLAND

Indicator definition: Compatibility not known

Variable	Value	Value compatibility	Transformation
Vehicle type	Passenger car		-
	Lorry < 3,5t		-
	Lorry > 3,5t		-
	Bus or coach		-
	Moped		-
	Motorcycle		-
Area type	Inside urban area		-
	Outside urban area		-
Road type	Motorway (yes/no)		?
	Road type groups		?
Year/month/day/hour	Year/1-12/1-31/0-23		-

7.1.2. Methodology questions

Methodological questions on number of trips by survey:

	POLAND	NORWAY
Since when is the survey carried out?	1980	Mid eighties
How often is the survey carried out?	5 years	4 years
When were the last two surveys carried out?	2006, 1996	2001, 2005
What is the target group number?	6	43699, i.e. the number of persons drawn from the national register that one tried to reach.
What is the coverage rate of the survey?	-	79,2 per cent
What is the sample size of the survey (number of households / persons)?	-	34595 persons (79,2 per cent of 43699)
What is the type of the survey?	Roadside interview	Telephone
What is the response rate of the survey?		50%
Are there any sample limitations on person age / nationality etc?	No	The full survey only covers people over twelve years, but in the last survey from 2005 a sub sample of children aged 6-12 years is included. The questionnaire to this sub sample, is, however, not as comprehensive as the ordinary questionnaire in the National Travel Survey, so the potential of using the data to estimate exposure to traffic is somewhat more restricted.
Are there any geographical limitations?	No	No, the survey covers the whole country, but there are additional sub samples in some regions.
Are there any limitations on the type of trips?	-	Yes. Only private travels are in principle covered by the survey, as in most travel surveys, but in the last two surveys professional drivers in the sample were also asked how many kilometres they drove as professional drivers during the register day.
What is the respondent's length of time covered by the survey?	-	People are asked about all the travels they made the previous day
What is the duration of the survey?	2 month	1 year
How is the exposure indicator calculated from the survey data?	-	Directly (calculating total distances travelled by multiplying average distance travelled with the number of persons).
Are there any known errors in the exposure estimates?	-	It is difficult to calculate reliable exposure data for transport means that are rarely used like motorcycles. The data set is normally not large enough to estimate risk by age and gender for other road users than car drivers and pedestrians. Moreover, trips by car passengers tend to be under-reported, whereas trips by walk or bicycle tend to be forgotten.
Are there any retrofit corrections of the exposure estimates?	-	Yes, the National Travel Survey is only conducted every 4th year. For pedestrians and bicyclists, this is the only source of exposure data, so for these transport modes one does not have estimates for intervening years. For motor vehicles, estimates of person kilometre in intervening years, are calculated based on the number of vehicles. When new results from the National Travel survey appear, person kilometres for earlier years (without travel survey data) are corrected.

8. Time in traffic

(Responsible partners: CETE-SO, INRETS)

8.1. Time in traffic estimated by surveys:

8.1.1. Variables, values and definitions

BELGIUM

Indicator definition: Compatible unknown

Variable	Value	Value compatibility	Transformation
Person class	?	?	?
Person Age	6-99 (partially available)		Incomplete information
	Age groups*	?	Incomplete information
Person gender	male		
	female		
Person Nationality	country names	?	?
	nationality groups*		

GERMANY

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver		Incomplete information (only for car)
	Passenger		Incomplete information (only for car)
	Pedestrian		?
Person Age	0-99		
	Age groups*		Year of birth available; needs to be grouped according to the CARE age classes
Person Gender	male		
	female		
Driver license age	0-99 (ownership and type)		?
Vehicle type	Pedestrian		
	Bicycle		
	Mofa, Moped, motorcycle		Separation of moped and motorcycle required
	Car, as driver		Need to be grouped
	Car, as passenger		
	bus		
	Tram		
	Metro (U order S bahn)		
	Train		
	other		

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	Airplane		
Area type	Inside urban area		
	Outside Urban area		
Year/month/day/hour	year/1-12/1-31/0-23		

FRANCE

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Motorbiker		Need to be added with the drivers
	Moped rider		
	Cyclist		
	Pedestrian		
Person Age	6-99 (partially available)		Incomplete information (0-5)
	Age groups(birth date)		
Person Gender	male		
	female		
Driver license age	year		Difference between the current year and the year of the license
Vehicle type	passenger car		
	bus or coach		
	motorbike		
	moped		
	other		
Vehicle Age	0-99		Difference between the current year and the year of the first registration
	Age groups*		
Vehicle engine size	0-99		needs to be grouped according to the CARE age classes
Area type	Inside urban area		?
	Outside Urban area		?
Year/month/day/hour	year/1-12/1-31/0-23		

MALTA

Indicator definition: Compatible not known

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
Person Age	10-99 (partially available)		Incomplete information 0-10
	Age groups*		
Person Gender	male		
	female		



Project co-financed by the European Commission, Directorate-General Transport and Energy

THE NETHERLANDS

Indicator definition: Compatible not known

Variable	Value	Value compatibility	Transformation
Person class	Driver(c)		
	Passenger(c)		
	Pedestrian(c)		
Person Gender	male(c)		
	female(c)		
	unknown(c)		
Person Nationality	country names		Only Dutch
Vehicle type	passenger car(c)		
	bus or coach(c)		
	moped(c)		
	motorcycle(c)		
	other*(c)		
Vehicle Age	Age groups*(c)		
Year/month/day/hour	year/1-12/1-31/0-23(c)		

POLAND

Indicator definition: Compatibility not known

Variable	Value	Value compatibility	Transformation
Person class	Driver		?
Vehicle type	Passenger car		?
	Lorry < 3,5t		?
	Lorry > 3,5t		?
	Bus or coach		?
	Moped		?
	Motorcycle		?
Area type	Inside urban area		?
	Outside urban area		?
Road type	Motorway (yes/no)		?
	Road type groups		?
Year/month/day/hour	Year/1-12/1-31/0-23		-

FINLAND

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver(c)		
	Passenger(c)		
	Pedestrian(c)		
Person Age	6-99 (partially available)		Incomplete information 0-5
	Age groups*		
	Unknown		
Person Gender	male(c)		
	female(c)		
	Unknown(c)		

SWEDEN

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person Age	Age groups		Swedish classes (6-14 15-24 25-



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	(partially available)		34...75-80) are incompatible
Person Gender	male		
	female		

UNITED KINGDOM

Indicator definition: Compatible

Variable	Value	Value compatibility	Transformation
Person class	Driver		
	Passenger		
	Pedestrian		
Person Age	Age groups* (partially available) ([0-1];[1-2]; [3-4]; [5-10]; [11-15]; 16;17;18;19;20 [21-25]; [26-29]; [30-39]; [40- 49]; [50-59]; [60-64]; [65-69]; [70-74]; [75- 79]; [80-84]; [85-+])		?
Person Gender	male		
	female		
Driver license age	No license		?
	Length of license ([0-2];[2-3]; [4-5]; [6-7]; [8-10]; [11-14]; [15-19]; [20-24]; [25-29]; [30-39]; [40-49]; [50-+])		?
Vehicle type	passenger car		Must be grouped
	5 Household car (driver)		
	6 Non-household car (driver)		
	7 Household car (passenger)		
	8 Non-household car (passenger)		Must be grouped
	lorry <3,5 t		
	13 Household van/lorry (driver)		
	14 Non-household van/lorry (driver)		
	15 Household van/lorry (passenger)		
	16 Non-household van/lorry (passenger)		Must be grouped
	moped		
	motorcycle		
	9 Household motorcycle (driver)		
	10 Non-household motorcycle (driver)		
	11 Household motorcycle (passenger)		Must be grouped
	12 Non-household motorcycle (passenger)		
	1 Walk, less than 1 mile		
	2 Walk, 1 mile or more		Must be grouped
	bus or coach		
	17 Other private transport		
	18 London stage bus		
19 Other stage bus			
20 Public express bus/coach			
21 Excursion/tour bus			
4 Private (hire) bus			
Lorry >3,5 t		?	
3 Bicycle		?	
other*		?	
22 LT Underground		?	
23 Surface Rail		?	
24 Light rail		?	
25 Air		?	



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	26 Taxi		?
	27 Minicab		?
	28 Other public transport		?
Vehicle engine size	Engine size groups* [0 50;] ; [51 125;] ; [126 250;] ; [251 ;700] ; [701 ;1000] ; [1001 ;1300] ; [1301 ;1400] ; [1401 ;1500] ; [1501 ;1800] ; [1801 ;2000] ; [2001 ;2500] ; [2501 ;3000] ; [3000 ;+]		?
Vehicle Age	Age groups* [0;0.5] ; [0.5 ;1] ;]1 ;1.5] ;]1.5 ;2] ;]2 ;3] ;]3 ;4] ;]4 ;5] ;]5 ;6] ;]6 ;7] ;]7 ;8] ;]8 ;10] ;]10;13];]13 ;18];]18;+]		?
Area type	Inside urban area		H154?
	Outside Urban area		
Year/month/day/hour	year/1-12/1-31/0-23		

8.1.2. Methodology questions

Question	GERMANY	FINLAND
Since when is the survey carried out?	1994 (since 1999 the survey is conducted in the whole of Germany, both the former east and west)	The first comprehensive study of the mobility of the Finns was made in 1974 the nation's travel habits have been surveyed every six years (1980, 1986, 1992 and 1998/1999).
How often is the survey carried out?	Annually	1992, 1998-1999
When were the last two surveys carried out?	Last year and the year before.	
What is the target group number?	Unknown	
What is the coverage rate of the survey?	Unknown	
What is the sample size of the survey (number of households / persons)?	750 households, which is equivalent to approximately 1500 persons. Two-thirds of these were in the previous survey year. However, Table 1, page 21 indicates 1104 households in 2003, 1997 persons".	The sample totalled 18,250 and was selected at random from the Central Population Register. Telephone numbers were identified for 84 per cent of this total
What is the type of the survey?	Combination of telephone and booklet.	Telephone survey (by post in previous years)
What is the response rate of the survey?	Unknown	64 per cent actually responded to the questions put to them by the interviewers.
Are there any sample limitations on person age / nationality etc?	Formally the sample is German speaking households in the Federal Republic of Germany. I wouldn't expect this to be a particular limitation compared to other surveys. There is an effect in terms of age in the sense that data for at most five persons is collected. In practice "in der Regel" this means the Five oldest persons in the household. Children under 10 don't have their own trip booklet.	People registered in Finland aged six and over. Covered the whole of the country except the Åland Islands.
Are there any geographical limitations?	No. Since 1999: Federal Republic of Germany. Before then the former "länder" of West Germany.	
Are there any limitations on the type of trips?	None given, it is explicitly stated that all trips should be registered "Hinweise zum Ausfüllen Ihres wegetagesbuches" on page 14 of the documentation.	Non-vehicular traffic and the mobility of children and the elderly were also covered more extensively than before
What is the respondent's length of time covered by the survey?	One week per year, for three years.	
What is the duration of the	Whole year	1day?

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

survey?		
How is the exposure indicator calculated from the survey data?	Weighting the observations	
Are there any known errors in the exposure estimates?	Many sorts of errors are studied, including selectivity of the sampling scheme.	By carrying out a non-response study it is possible to obtain limited information on the non-response and to determine whether the background information of the respondents is representative of the population at large. The non-response study conducted in conjunction with the survey showed that most of the results also applied to the population at large. Income was the only category in which problems were encountered, as some respondents were reluctant to answer questions about their earnings. However, in this respect the National Passenger Transport Survey did not differ from similar studies made before, and the coverage of information on annual earnings was about the same as in previous surveys.
Are there any retrofit corrections of the exposure estimates?	Unknown	

Question	FRANCE	MALTA	NETHERLANDS
Since when is the survey carried out?	1959	1989	1985
How often is the survey carried out?	once a decade	two times	continuous
When were the last two surveys carried out?	1993-1994 and 2007-2008	1989, 1998	2004, 2005
What is the target group number?		15000 households	16000000
What is the coverage rate of the survey?		1 in 8 households	
What is the sample size of the survey (number of households / persons)?	14 213 households and 21358 subjects	7600 households, over 20,000 personal travel diaries	30000/65000
What is the type of the survey?	interview and trip diary	Household Travel Survey, by mail	paper form
What is the response rate of the survey?	71,70%	around 50%	70
Are there any sample limitations on person age / nationality etc?	6 years old and more	from 11 years	no limitations only persons no cargo
Are there any geographical limitations?	France	no	no limitations
Are there any limitations on the type of trips?	no	no	
What is the respondent's length of time covered by the survey?	trips of the day before and the previous weekend	1 day	1 day
What is the duration of the survey?	05/1993-04/1994	1 day	
How is the exposure indicator calculated from the survey data?	Total time travelled is obtained by multiplying average time	by querying the survey database	



Project co-financed by the European Commission, Directorate-General Transport and Energy

SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

	travelled per subjects with the number of persons		
Are there any known errors in the exposure estimates?	missing data	no	
Are there any retrofit corrections of the exposure estimates?	Imputation and reweighing methods for missing data	no	

Question	SWEDEN	UK
Since when is the survey carried out?	1994	1965/1966, continuous since 1988.
How often is the survey carried out?	1994-2001 and 2004	Continuous.
When were the last two surveys carried out?	2001 and 2005	Continuous since 1988, non continuous surveys at 1965/1966, 1972/1973, 1975/1976, 1978/1979 and 1985/1986.
What is the target group number?	?	Unknown. Households are selected from the Postcode Address File (PAF). Apparently, addresses are selected rather than households. These addresses receive less than 25 items of mail per day.
What is the coverage rate of the survey?		About 15000 addresses are selected, while 24.7 millions delivery points (addresses) are available for selection in Great Britain, this roughly means that the coverage rate is roughly equivalent to 0.06%.
What is the sample size of the survey (number of households / persons)?	7982 respondents	In 2002 it was 15048 addresses. Before then about 5796, 5040. The sample was created by first selecting Primary Sampling Units (PSU's) and then selecting addresses within these PSU's. The PSU's consist of sectors of postcodes. This probably means that the
What is the type of the survey?	telephone	Face to face interview and self-completion of 7 day travel record.
What is the response rate of the survey?	0,73	About 60% in 2004 and 2004. ASR, including non-eligible addresses, was 54% in 2003 and 53% in 2004. Non -eligible addresses include houses not yet build, addresses that appear not residential (school, business) and so on. Also communal institutions are ex
Are there any sample limitations on person age / nationality etc?	from 6	Parts of the survey are different for children vs. 16 year and older. The GB National Travel Survey trips made in the course of work are included provided that the purpose of the trip is for the traveller to reach a destination. Travel to deliver goods, or to convey a vehicle or passengers (e.g. as a bus driver or taxi driver), is not covered. Nor is travel as a conductor, guard or other member of a crew of public transport vehicles. Also excluded is travel as a driver or a member of a crew of public vehicles such as fire engines or ambulances; travel in industrial or agricultural equipment (cranes, bulldozers, tractors, etc.); travel in specially equipped vehicles used in the course of a person's work (police patrol cars, AA/RAC repair vehicles, Royal Mail vans, etc.); and trips in course of work by people paid to walk or cycle, such as policemen on the beat, traffic wardens, leaflet distributors, messengers, postmen, I believe travel in the line of work (e.g. bus drivers) are excluded from the survey. However, I can't find proof of this in the documentation
Are there any geographical limitations?	No	Scottish Islands (2.2 % of Scottish addresses) and Scilly (0.2% of English addresses) were excluded for practical



SafetyNet Deliverable 2.3. Risk and Exposure Data Common Framework - Annexes

		reasons.
Are there any limitations on the type of trips?	Only passengers no goods	I believe travel in the line of work (e.g. bus drivers) are excluded from the survey. However, I can't find proof of this in the documentation
What is the respondent's length of time covered by the survey?	?	7 days
What is the duration of the survey?	?	Whole year
How is the exposure indicator calculated from the survey data?	?	Yes, they are documented
Are there any known errors in the exposure estimates?	no but outcomes should be seen as indicative	Unknown

Question	BELGIUM	POLAND
Since when is the survey carried out?	once	1980
How often is the survey carried out?	once	5 years
When were the last two surveys carried out?	dec 1998-nov 1999	2006, 1996
What is the sample size of the survey (number of households / persons)?	7800 households and 17.000 respondents	200.000
What is the type of the survey?	postal and telephonic interview	Roadside interview
Are there any sample limitations on person age / nationality etc?	from 6 years	No
Are there any geographical limitations?	-	No
Are there any limitations on the type of trips?	-	No
What is the duration of the survey?	-	2 month
How is the exposure indicator calculated from the survey data?	Unknown	-