

Pre-event of the First European Conference on Injury Prevention and Safety Promotion

Towards a Safer Europe: Time for Action

Eretria, September 29th 2005

Current and future potential of CARE and the European Road Safety Observatory



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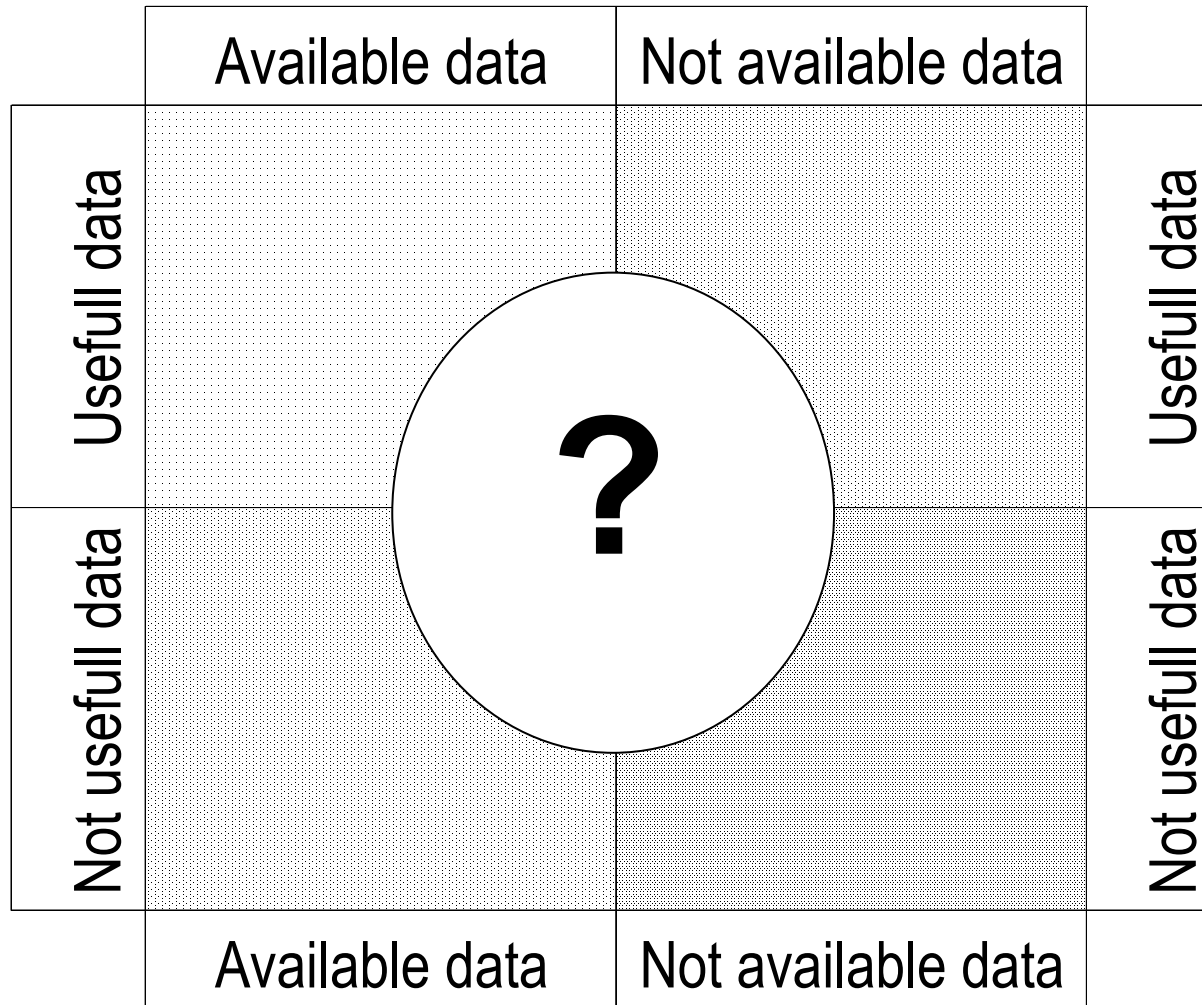
Road accident data - The questions

Do we have the data we need?

Do we need the data we have?

Road Accident Data

Usefulness and availability of Data



CARE Database

Community database on **A**ccidents on the **R**oads in **E**urope

Objectives

Provide a **powerful tool** which would make it possible to:

- i) **Identify and quantify** road safety problems throughout Europe
- ii) **Evaluate the efficiency** of road safety measures
- iii) **Determine the relevance** of Community actions
- iv) **Facilitate the exchange** of experience in this field

CARE Database - Description

- A European Commission initiative to create a database on road accidents recorded in the European Roads.
- **High level of disaggregation of the data** (i.e. CARE comprises detailed data on individual accidents as collected by the Member States.
- **Maximum flexibility and potential** with regard to analysing the information contained in the system and opens up a whole set of new possibilities in the field of accident analysis.

CARE Database - History (1)

CARE database development started in 1988, as a result of the combined effort of the European Commission competent services (DG - TREN, Eurostat, Informatics Directorate) under the coordination of DG - TREN.



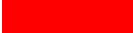
- **First phase** (1988 - 1993): feasibility study for the creation of CARE led to a positive result and thus, to the European Council decision of December 1993 for the creation of a disaggregate road accident database.
- **Second phase** (1993 - 1996): pilot operation of CARE, during which all operational problems were dealt and overall evaluation took place. Results of the evaluation were positive and the European Commission opened the way for the further development of CARE into an integrated information system.

CARE Database - History (2)

- **Third phase** (1996 -1999): harmonisation of data contained inside the database allowing international comparisons and exchange of experience. CAREPLUS I and II projects thoroughly examined the compatibility of data variables and values and proposed a set of 38 variables containing 488 common-definition values (17 variables and 217 values from CAREPLUS I and 19 variables and 271 values from CAREPLUS II).
- **Fourth phase** (1999 - 2002): full operation of the system and the migration to a modern and efficient software platform (Oracle). Today, the CARE users can exploit a user-friendly interface to produce detailed multi-dimension reports.
- **Fifth phase** (2002 -): full operation of the system and progressive extension to the 10 new Member States. Users and queries continuously increase.

CARE Database - Availability

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
BELGIQUE / BELGIE													
DANMARK													
DEUTSCHLAND													
ELLADA													
ESPANA													
FRANCE													
IRELAND													
ITALIA													
LUXEMBOURG													
NEDERLAND													
ÖSTERREICH													
PORTUGAL													
SUOMI / FINLAND													
SVERIGE													
UNITED KINGDOM*													

	Data received and uploaded
	Data received and being processed
	Data missing

- Data from the **10 new Member States** will be progressively incorporated into CARE database.

CARE Database - List of variables

CAREPLUS 1

month
hour
day of month
day of week
person class
injury severity (person)
sex (person)
age (person)
lighting
natural light
street light
accident severity
person type
area type
vehicle type
motorway
collision type
junction
junction type
weather

CAREPLUS 2

registration country
nationality
vehicle age
driving licence age
road surface condition
region/province
speed limit
alcohol test
psychophysical circumstances
alcohol level
movement (pedestrian)
carriageway type
number of lanes
manoeuvre (driver)
manoeuvre (vehicle)
junction control
security equipment
road markings
hit and run

CARE Database - List of Variables and Values

Microsoft Internet Explorer window showing the CARE Database interface. The browser title is "Edit document: - Microsoft Internet Explorer". The address bar shows the URL: <https://webgate.ccc.eu-admin.net/care/wi/bin/iswi.dll/WIGenerator/wigenerator/generator/ExecuteWIS?sWIS=DefaultWebPanelFrame&context=c0&UniverseName=CP2V10DC&RepositoryId=11&UniverseId=41&Docu>.

The main content area is titled "CarPlus2 v1.0" and displays a list of variables and values under the heading "All Objects". The variables listed are:

- Accident type items
 - Nbr. Vehicles Involved
 - Carriageway Type
 - Collision Type
 - Junction Control
 - Severity
 - Weather
 - Road Surface Condition
 - Speed Limit
 - Speed Limit Group
 - Hit and run
 - Road Markings
 - Number of Lanes
- Area
 - Area Type
 - Motorway
- Light
- Junction
 - Junction
 - Junction Type
- Accident Type
- Region/Province
- Person type items
- Time type items
- Vehicle type items
- Country items
- Measures
 - Sum of Injured (not spe)
 - Sum of Killed
 - Sum of Killed at 30 day
 - Sum of Injured at 30 da
 - Sum of Seriously Injure
 - Sum of Not Injured
 - Sum of Seriously Injure
 - Sum of Slightly Injured
 - Sum of Victims
 - Sum of Unknow
 - Number of Vehicles
 - Number of Accident

The interface also includes a "Table" section with the instruction: "To create a table, drag objects from the list and drop them here." The bottom of the window features buttons for "Results", "Conditions", "Settings", "Save and Close", and "Run Query". The Windows taskbar at the bottom shows the start button, open documents, and system tray with the time 7:23 pm.

CARE Database - Output Report

Document Results - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://webgate.cec.eu-admin.net/care/wj/bin/iswi.dll/WIGenerator/wigenerator/generator/ExecuteWIS?sWIS=DefaultRFrame&DocumentName=?entry=r5>

Download Drill Refresh Edit Save Send Delete

Welcome Last refresh: 28/09/05 07:31:22 PM

	1997	1998	1999	2000	2001	2002	Sum:
	Sum of Killed at 30 days	Sum of Killed at 30 days	Sum of Killed at 30 days	Sum of Killed at 30 days	Sum of Killed at 30 days	Sum of Killed at 30 days	
Belgique/Belgie	1364	1500	1397	1470	1486		7217
Danmark	489	499	514	498	431		2894
Ellada	2105	2182	2116	2037	1880	1634	11954
Espana	5604	5957	5738	5777	5516	5347	33940
France	8444	8918	8487	8079	8160	7655	49742
Ireland	473	458	414	418	412	378	2553
Italia	6713	6314					13027
Luxembourg	60	57	58	76	70	62	383
Nederland	1163	1066	1090	1082	993	987	6381
Osterreich	1105	963	1079	976	958	956	6037
Portugal	2521	2126	1995	1857	1671	1668	11838
Suomi/Finland	438	400	431	396	433	415	2513
Sverige	541	531	580	591	583	560	3386
United Kingdom	3743	3581	3564	3580	3598	3581	21647
Sum:	34763	34552	27463	26837	26191	23706	173511

Page 1

Done Internet

start Document Results - M... Doc1.doc - Microsoft ... Document2 - Microsof...

EN 7:31 pm

CARE Database - Basic Fact Sheet

BFS2005_SN-TRL-1-3-children (Preview) - Microsoft Word

File Edit View Insert Format Tools Table Window Help

Type a question for help

29%

6 4 2 2 14

2 14 12 14 12 20 22 24 26 28

Traffic Safety Basic Facts 2005

Children (Aged 1-16)

The number of children aged 1-16 who were killed in road traffic accidents in 2005 was 107. This is a decrease of 10% on the 118 children aged 1-16 who were killed in road traffic accidents in 2004.

Country	2004	2005
Belgium	1	1
Bulgaria	1	1
Czechia	1	1
Denmark	1	1
France	1	1
Germany	1	1
Greece	1	1
Ireland	1	1
Italy	1	1
Latvia	1	1
Lithuania	1	1
Netherlands	1	1
Poland	1	1
Portugal	1	1
Romania	1	1
Slovakia	1	1
Slovenia	1	1
Spain	1	1
Sweden	1	1
United Kingdom	1	1
Other	100	100

Traffic Safety Basic Facts 2005

Children (Aged 1-16)

Table 2 shows the percentage of the total child population aged 1-16 who were killed in road traffic accidents in 2005. This is a decrease of 10% on the 118 children aged 1-16 who were killed in road traffic accidents in 2004.

Country	2004	2005
Belgium	0.0001	0.0001
Bulgaria	0.0001	0.0001
Czechia	0.0001	0.0001
Denmark	0.0001	0.0001
France	0.0001	0.0001
Germany	0.0001	0.0001
Greece	0.0001	0.0001
Ireland	0.0001	0.0001
Italy	0.0001	0.0001
Latvia	0.0001	0.0001
Lithuania	0.0001	0.0001
Netherlands	0.0001	0.0001
Poland	0.0001	0.0001
Portugal	0.0001	0.0001
Romania	0.0001	0.0001
Slovakia	0.0001	0.0001
Slovenia	0.0001	0.0001
Spain	0.0001	0.0001
Sweden	0.0001	0.0001
United Kingdom	0.0001	0.0001
Other	0.0001	0.0001

Traffic Safety Basic Facts 2005

Children (Aged 1-16)

Table 3 shows the distribution of child deaths by mode of transport. The most common mode of transport for child deaths is by car, accounting for 45% of all child deaths.

Mode of Transport	2004	2005
Car	53	48
Motorcycle	1	1
Tram	1	1
Bus	1	1
Other	44	49

Traffic Safety Basic Facts 2005

Children (Aged 1-16)

Table 4 shows the distribution of child deaths by month. The highest number of child deaths occurred in December, with 15 deaths.

Month	2004	2005
Jan	1	1
Feb	1	1
Mar	1	1
Apr	1	1
May	1	1
Jun	1	1
Jul	1	1
Aug	1	1
Sep	1	1
Oct	1	1
Nov	1	1
Dec	15	15

Traffic Safety Basic Facts 2005

Children (Aged 1-16)

Table 5 shows the distribution of child deaths by gender. The highest number of child deaths occurred among boys, with 60 deaths.

Gender	2004	2005
Boys	60	58
Girls	58	49

Traffic Safety Basic Facts 2005

Children (Aged 1-16)

Table 6 shows the distribution of child deaths by time of day. The highest number of child deaths occurred between 16:00 and 18:00, with 15 deaths.

Time of Day	2004	2005
00:00-02:00	1	1
02:00-04:00	1	1
04:00-06:00	1	1
06:00-08:00	1	1
08:00-10:00	1	1
10:00-12:00	1	1
12:00-14:00	1	1
14:00-16:00	1	1
16:00-18:00	15	15
18:00-20:00	1	1
20:00-22:00	1	1
22:00-24:00	1	1

Traffic Safety Basic Facts 2005

Children (Aged 1-16)

Table 7 shows the distribution of child deaths by day of the week. The highest number of child deaths occurred on Saturday, with 15 deaths.

Day of the Week	2004	2005
Monday	1	1
Tuesday	1	1
Wednesday	1	1
Thursday	1	1
Friday	1	1
Saturday	15	15
Sunday	1	1

Traffic Safety Basic Facts 2005

Children (Aged 1-16)

Table 8 shows the distribution of child deaths by region. The highest number of child deaths occurred in the North East, with 15 deaths.

Region	2004	2005
North East	15	15
North West	1	1
Yorkshire and the Humber	1	1
West Midlands	1	1
East Midlands	1	1
East of England	1	1
London	1	1
South East	1	1
South West	1	1
Wales	1	1

Traffic Safety Basic Facts 2005

Children (Aged 1-16)

Table 9 shows the distribution of child deaths by country. The highest number of child deaths occurred in the United Kingdom, with 107 deaths.

Country	2004	2005
Belgium	1	1
Bulgaria	1	1
Czechia	1	1
Denmark	1	1
France	1	1
Germany	1	1
Greece	1	1
Ireland	1	1
Italy	1	1
Latvia	1	1
Lithuania	1	1
Netherlands	1	1
Poland	1	1
Portugal	1	1
Romania	1	1
Slovakia	1	1
Slovenia	1	1
Spain	1	1
Sweden	1	1
United Kingdom	107	107
Other	1	1

Traffic Safety Basic Facts 2005

Children (Aged 1-16)

Table 10 shows the distribution of child deaths by mode of transport, gender, and month. The highest number of child deaths occurred among boys, in December, by car, with 15 deaths.

Mode of Transport	Gender	Month	2004	2005
Car	Boys	Dec	15	15
Car	Girls	Dec	15	15
Other	Boys	Dec	15	15
Other	Girls	Dec	15	15

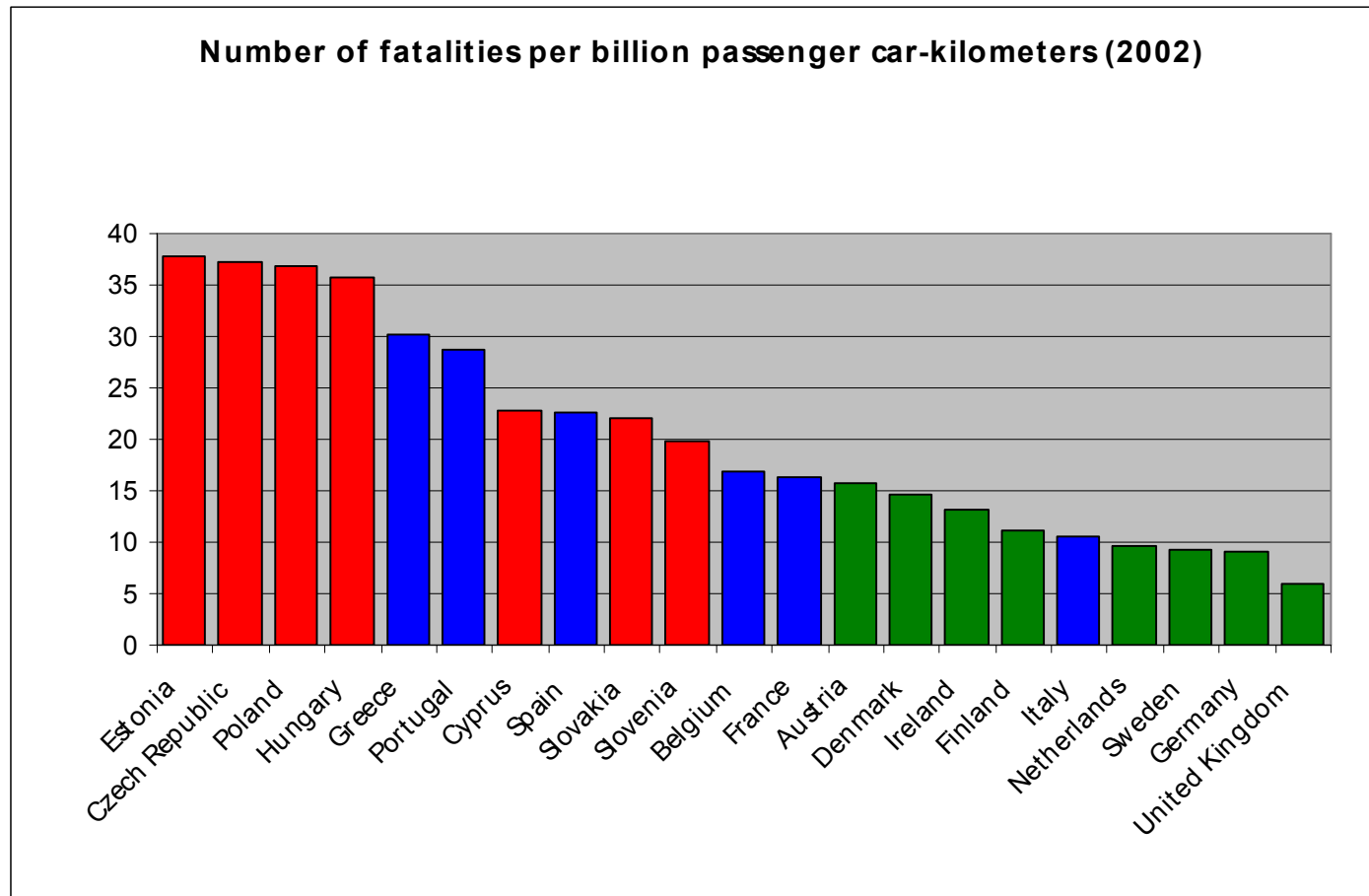
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CARE Database - Risk/Exposure Data (1)

- Risk/Exposure data incorporation in CARE will allow more **useful road accident analyses** and **better description** of the road accident phenomenon.
- **Types** of Risk/Exposure Data:
 - Vehicle-kilometers
 - Person-kilometers
 - Fuel consumption
 - Road network length
 - Population's pyramid of users
 - Fleet of vehicles by category
 - Driver's population by category and age of driving license
- Better exploitation of existing road accident data by developing appropriate **road accident rates** (i.e. fatalities per million veh-kms).

CARE Database - Risk/Exposure Data (2)



Road safety performance in EU Member States: Car occupant **fatality rate** per **billion vehicle-kilometers** in 2002 (Source: CARE, Sartre 3)

CARE Database - Road Safety Performance Indicators (1)

- Variables used complementary to existing road accident data to measure changes in the operational conditions of traffic system, allowing **better understanding** of road accidents and underlying processes, enabling **policy interventions monitoring** and facilitating **decision making**.
- **Types** of Road Safety Performance Indicators:

Alcohol and drug use

Speeds

Protection systems

Daytime running lights

Vehicle's passive safety

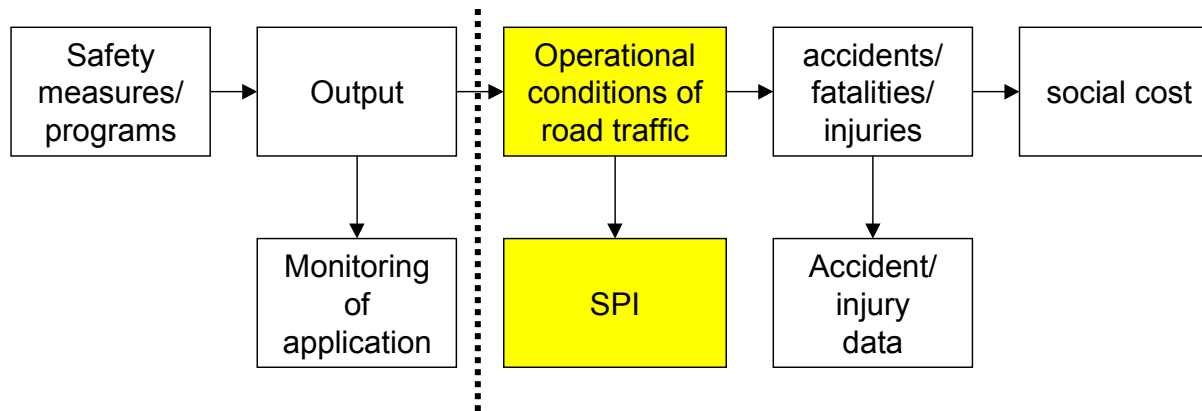
Road network

Trauma management



CARE Database - Road Safety Performance Indicators (2)

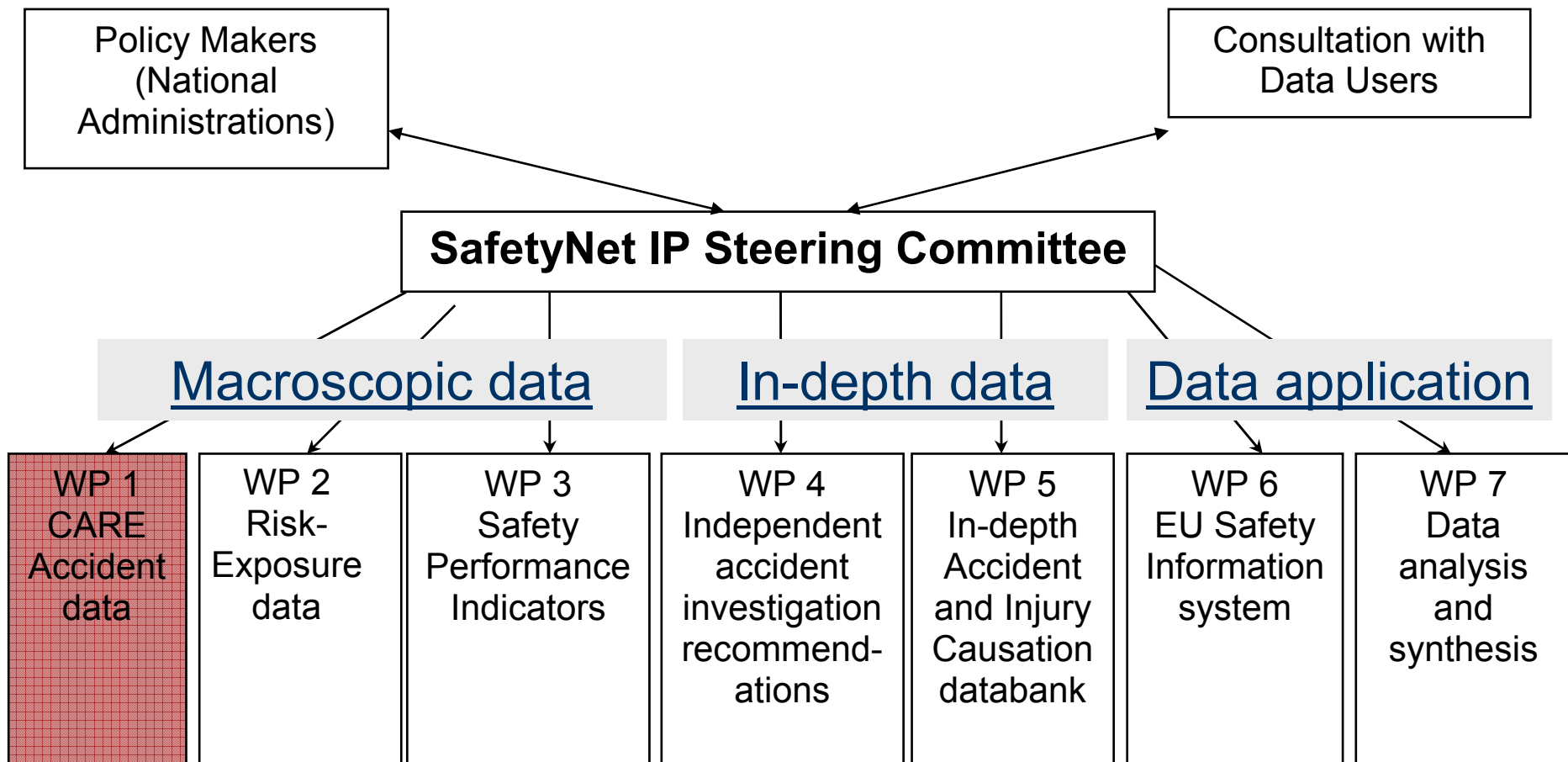
- Interrelations in road safety policy



- Development of a concrete picture of **road safety level** and detection of the **emergence of road safety problems** at an early stage.
- Use of **qualitative** and **quantitative** information to help determine a road safety programmes' success in achieving its objectives.

SafetyNet Integrated Project

Building the European Road Safety Observatory



SafetyNet Integrated Project

Building the European Road Safety Observatory

Objectives

Assemble a **coordinated set of data resources** that together will meet the European Commission needs for **policy support** and enable to:

- i) Monitor **progress** towards road safety targets
- ii) Identify **best practice**
- iii) Ensure that new regulatory and other safety actions will result in the **maximum casualty reduction**.

CARE Data Base - The way forward

Development of a **European Road Safety Observatory** with:

- Disaggregate road accident data (accidents, casualties)
- Risk/Exposure data (vehicle-kilometers, person-kilometers etc)
- Road environment data (road network data, risk sites, etc.)
- Road Safety Action Plans
- Data on enforcement (number of infringements etc)
- In-depth data (accident/casualty causation, accident cost)
- Road safety legislative frameworks
- Links with other databases (i.e. medical) and information systems
- Knowledge database (studies on road safety)

Road Safety is a major societal issue for this decade