



European Transport Safety Council

Data Working Party

SECBeltMonitor

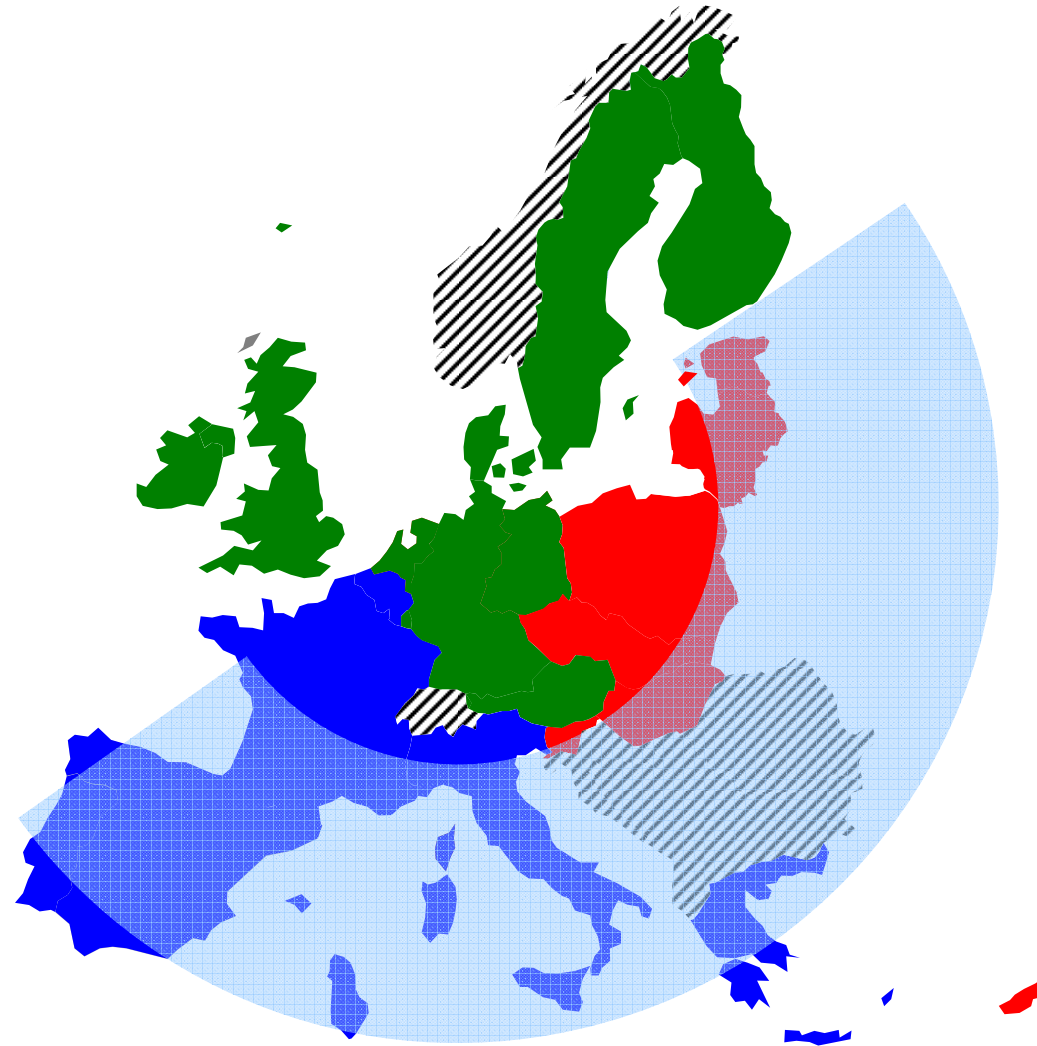


Road accident data in the enlarged European Union

Learning from each other

George Yannis, Matthijs Koornstra
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Road safety distribution across Europe



Member states below EU-15 average risk

New Member state above EU-15 average risk

Old Member states above EU-15 average risk

Non Member states

Objectives

- Investigation of the current situation in the 25 countries of the European Union regarding road safety
- Evaluation of the existing methods for accident data collection and analysis
- Identification of problem areas regarding road accident data
- Proposition of guidelines for improving road accident data and investigation

The ultimate goal is to allow all Member States to learn from each other.

Key issues

- Availability of road accident data
- Levels of aggregation
- Reliability of road accident data
- Comparability at the EU level
- Underreporting rates and exposure data
- Data on vulnerable road users (two-wheelers, pedestrians)

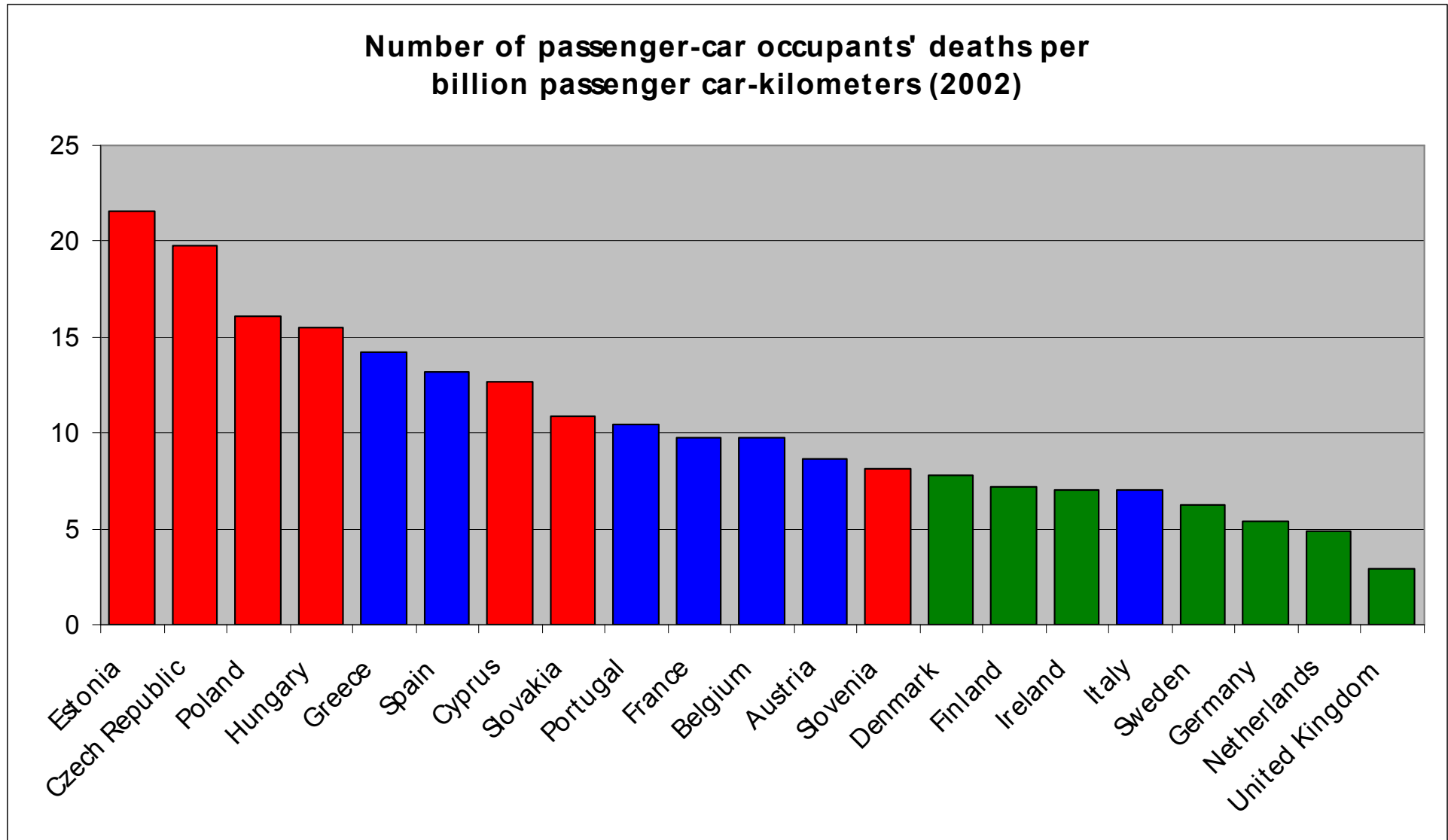
Basic questions to be considered

- Why do we need data?
- What types of data do we need?
- What level of detail is required?
- How do we process the data?
- How do decision makers use data?

Methodology

- *Grouping the 25 EU countries based on their safety levels:*
 - "Non SEC Belt countries" ("North-Western countries")
 - "Old SEC Belt countries" ("Southern countries")
 - "New SEC Belt countries" ("New countries")
- *Assessing road safety data:*
 - data collection
 - quality control and storage
 - processing
 - analysis
 - dissemination of the analysis results

Indicative road safety performance in EU Member States



Basic road safety figures of the 25 EU countries

Road accident deaths

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
North-Western	Austria	1.551	1.403	1.283	1.338	1.210	1.027	1.105	963	1.079	976	958	956	931	878
	Denmark	606	577	559	546	582	514	489	499	514	498	431	463	432	369
	Finland	632	601	484	480	441	404	438	400	431	396	433	415	379	375
	Germany	11.300	10.631	9.949	9.814	9.454	8.758	8.549	7.792	7.772	7.503	6.977	6.842	6.613	5.842
	Ireland	445	415	431	404	437	453	473	458	414	418	412	376	339	379
	Luxembourg	83	69	78	65	70	71	60	57	58	70	69	62	53	49
	Netherlands	1.281	1.253	1.235	1.298	1.334	1.180	1.163	1.066	1.090	1.082	993	987	1.028	804
	Sweden	745	759	632	589	572	537	541	531	580	591	583	560	529	480
	United Kingdom	4.753	4.379	3.957	3.807	3.765	3.740	3.743	3.581	3.564	3.580	3.598	3.581	3.658	3.368
	Total	21.396	20.087	18.608	18.341	17.865	16.684	16.561	15.347	15.502	15.114	14.454	14.242	13.962	12.544

Southern countries	Belgium*	1.873	1.671	1.660	1.692	1.449	1.356	1.364	1.500	1.397	1.470	1.486	1.315	1.315	1.315
	France	10.483	9.900	9.867	9.019	8.891	8.541	8.444	8.918	8.487	8.079	8.160	7.655	6.058	5.530
	Greece	2.112	2.158	2.159	2.253	2.411	2.157	2.105	2.182	2.116	2.037	1.880	1.654	1.615	1.619
	Italy	8.109	8.053	7.188	7.091	7.020	6.676	6.713	6.314	6.633	6.410	6.682	6.775	6.015	5.625
	Spain	8.836	7.818	6.378	5.615	5.751	5.483	5.604	5.957	5.738	5.776	5.517	5.347	5.399	4.751
	Portugal	3.218	3.084	2.700	2.504	2.711	2.730	2.521	2.126	2.028	1.874	1.671	1.655	1.546	1.294
	Total	34.631	32.684	29.952	28.174	28.233	26.943	26.751	26.997	26.399	25.646	25.396	24.401	21.948	20.134

New countries	Cyprus	103	132	115	133	118	128	115	111	113	111	98	94	97	117
	Czech Republic	1.331	1.532	1.524	1.637	1.588	1.562	1.597	1.360	1.455	1.486	1.334	1.431	1.447	1.382
	Estonia	490	287	321	364	332	213	280	284	232	204	199	224	164	170
	Hungary	2.120	2.101	1.678	1.562	1.589	1.370	1.391	1.371	1.306	1.200	1.239	1.429	1.326	1.296
	Latvia	923	729	670	717	611	550	525	627	604	588	517	518	493	516
	Lithuania	1.093	779	958	765	672	667	725	829	748	641	706	697	709	752
	Malta	16	11	14	6	14	19	18	17	4	15	16	16	16	13
	Poland	7.901	6.946	6.341	6.744	6.900	6.359	7.310	7.080	6.730	6.294	5.534	5.827	5.640	5.712
	Slovakia	649	697	639	680	698	640	828	859	671	647	625	626	653	608
	Slovenia	462	493	493	505	415	389	357	309	334	313	278	269	242	274
Total	15.088	13.707	12.753	13.113	12.937	11.897	13.146	12.847	12.197	11.499	10.546	11.131	10.787	10.840	

Grand Total	71.115	66.478	61.313	59.628	59.035	55.524	56.458	55.191	54.098	52.259	50.396	49.774	46.697	43.518
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* Latest figures for 2002

Basic road safety figures of the 25 EU countries

Road accident deaths per million inhabitants

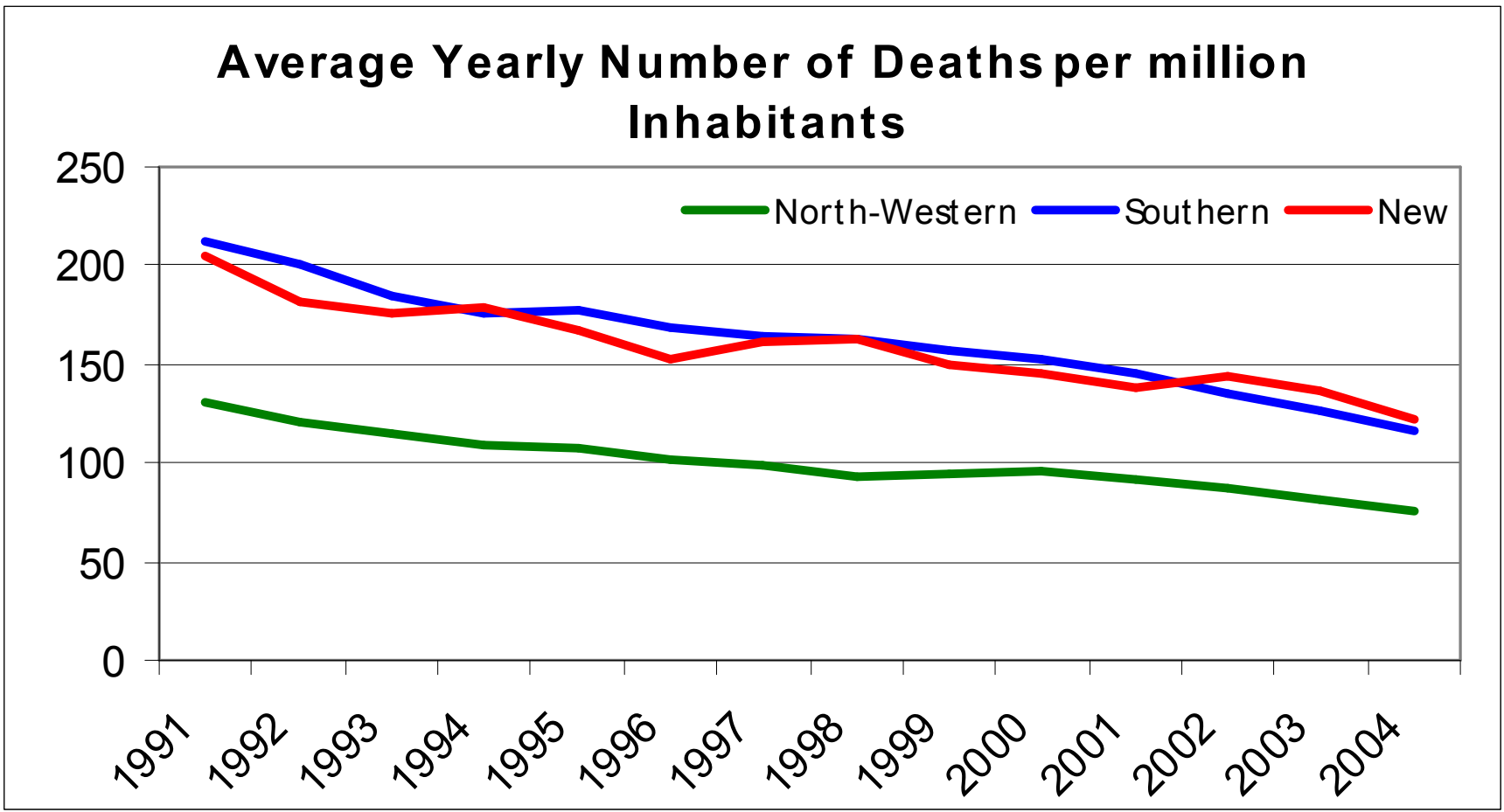
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
North-Western countries														
Austria	200	179	162	169	152	129	139	121	135	122	119	118	115	108
Denmark	118	112	108	105	112	98	93	94	97	93	81	86	80	69
Finland	126	120	96	95	86	79	85	78	84	77	84	80	73	72
Germany	142	132	123	121	116	107	104	95	95	91	85	83	80	71
Ireland	126	117	121	113	121	125	130	124	111	111	108	97	87	89
Luxembourg	216	177	197	162	172	172	143	135	135	174	159	140	119	110
Netherlands	85	83	81	85	86	76	75	68	69	68	62	61	64	50
Sweden	87	88	73	67	65	61	61	60	66	67	66	63	59	54
United Kingdom	82	76	68	65	64	64	64	61	60	60	60	60	62	56
Average	117	109	101	99	96	89	88	82	82	80	76	75	74	66

Southern countries														
Belgium*	188	167	165	168	143	134	134	147	137	144	145	128	128	128
France	184	173	172	157	154	147	145	153	145	138	138	129	102	93
Greece	207	210	209	216	231	206	201	208	201	193	178	151	147	153
Italy	143	142	126	124	123	116	117	110	115	115	116	117	104	97
Spain	227	201	163	143	146	139	142	150	144	143	135	129	128	113
Portugal	326	310	271	251	271	272	250	210	200	184	163	160	150	125
Average	190	179	163	153	153	145	144	145	141	138	135	128	115	106

New countries														
Cyprus	150	189	161	184	162	174	155	149	150	147	129	129	128	154
Czech Republic	128	152	148	158	154	151	155	132	141	145	130	139	141	135
Estonia	312	184	210	242	223	144	192	195	160	149	146	163	120	124
Hungary	204	203	162	151	154	133	135	133	127	117	121	140	131	127
Latvia	346	274	257	279	242	220	212	255	248	247	219	221	210	220
Lithuania	314	223	256	205	181	180	196	224	202	173	203	201	204	216
Malta	45	31	39	16	38	51	48	45	11	39	41	41	41	33
Poland	207	181	165	175	179	165	189	183	174	163	143	151	146	148
Slovakia	116	128	110	119	123	115	146	152	120	116	114	113	120	113
Slovenia	231	247	247	254	209	195	180	156	169	157	140	135	121	137
Average	200	183	168	173	171	157	174	170	161	153	141	149	144	145
Average	161	150	138	134	132	124	126	123	120	116	111	109	157	95

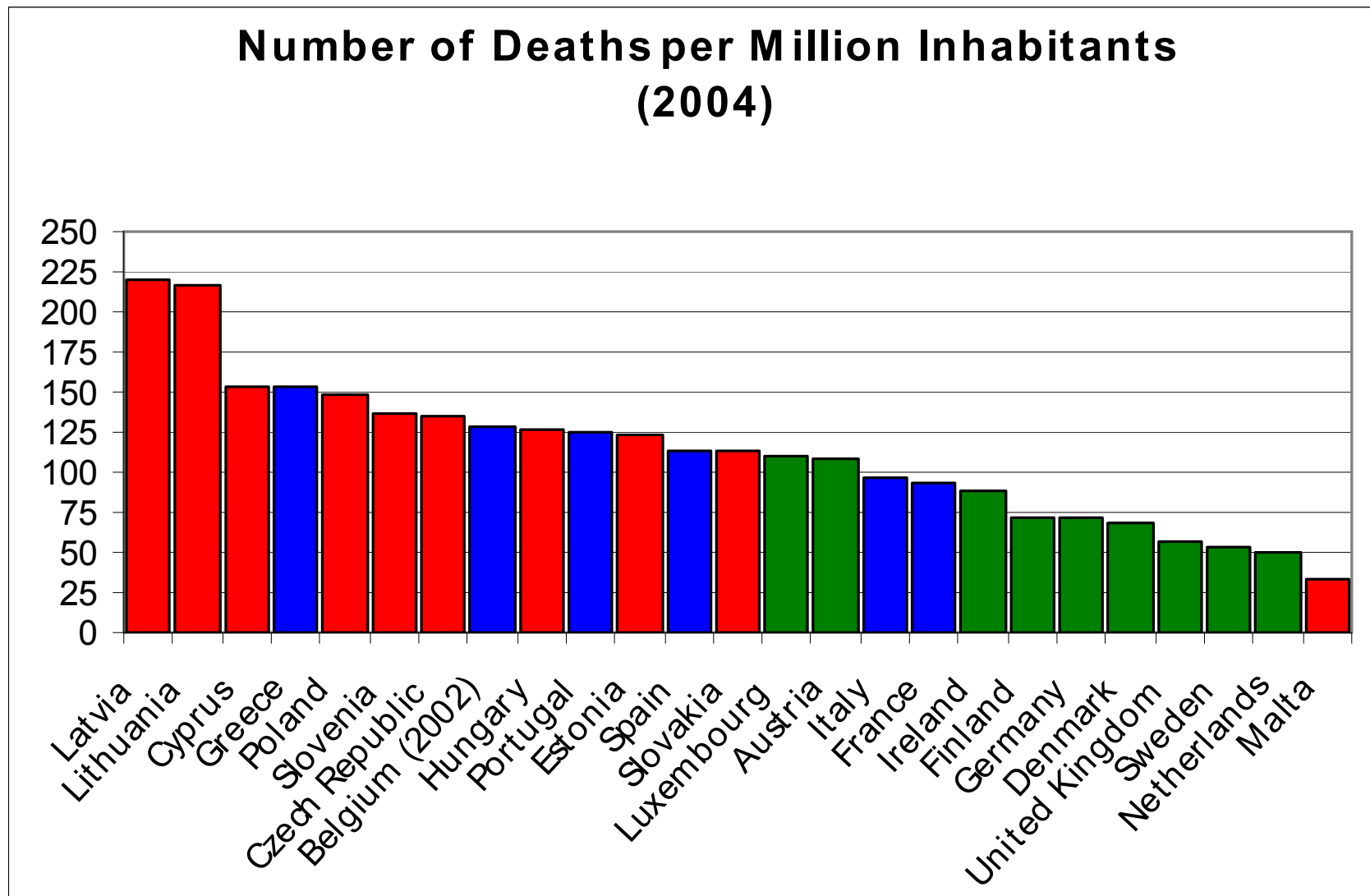
Basic road safety figures of the 25 EU countries

Road accident deaths per million inhabitants



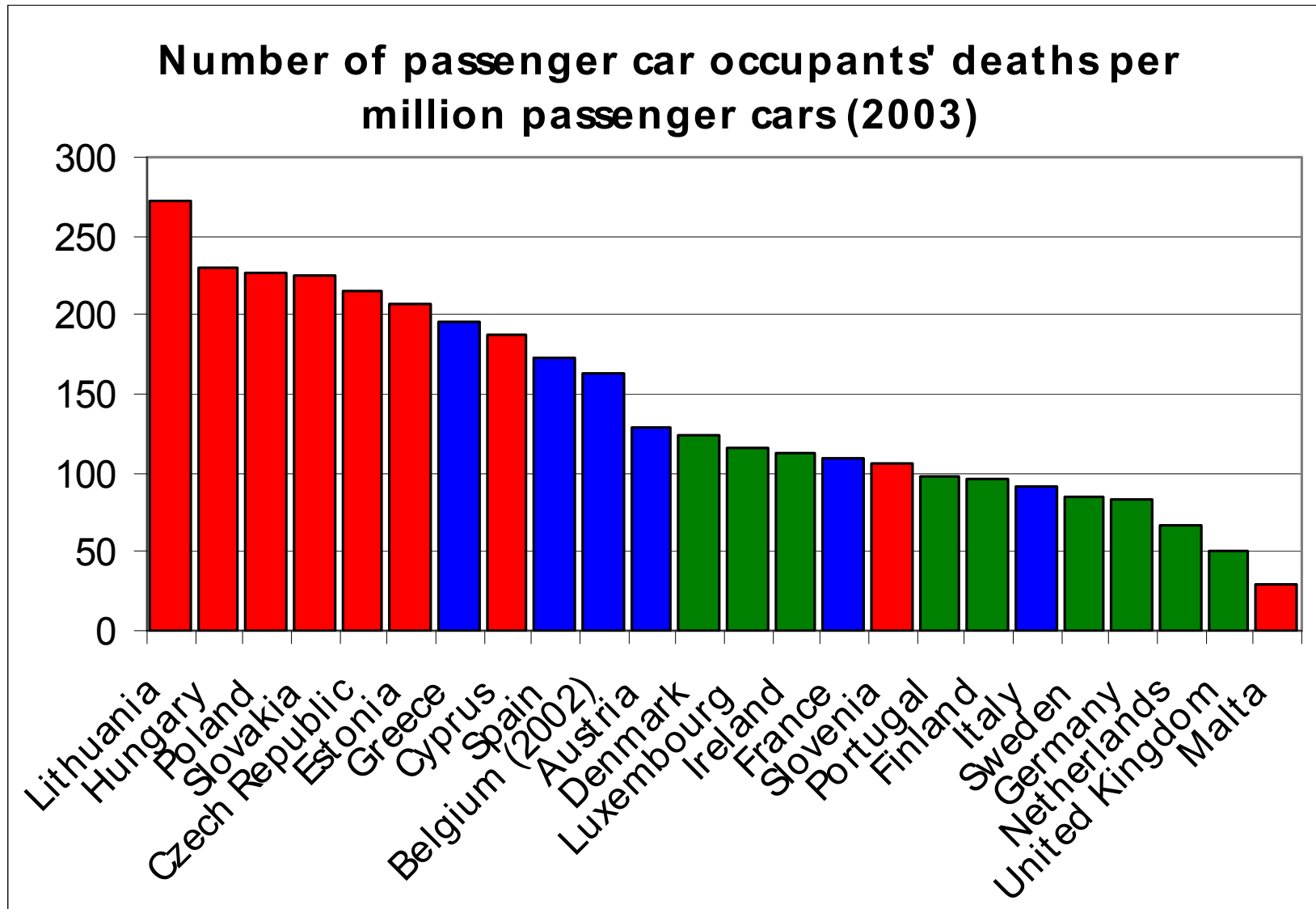
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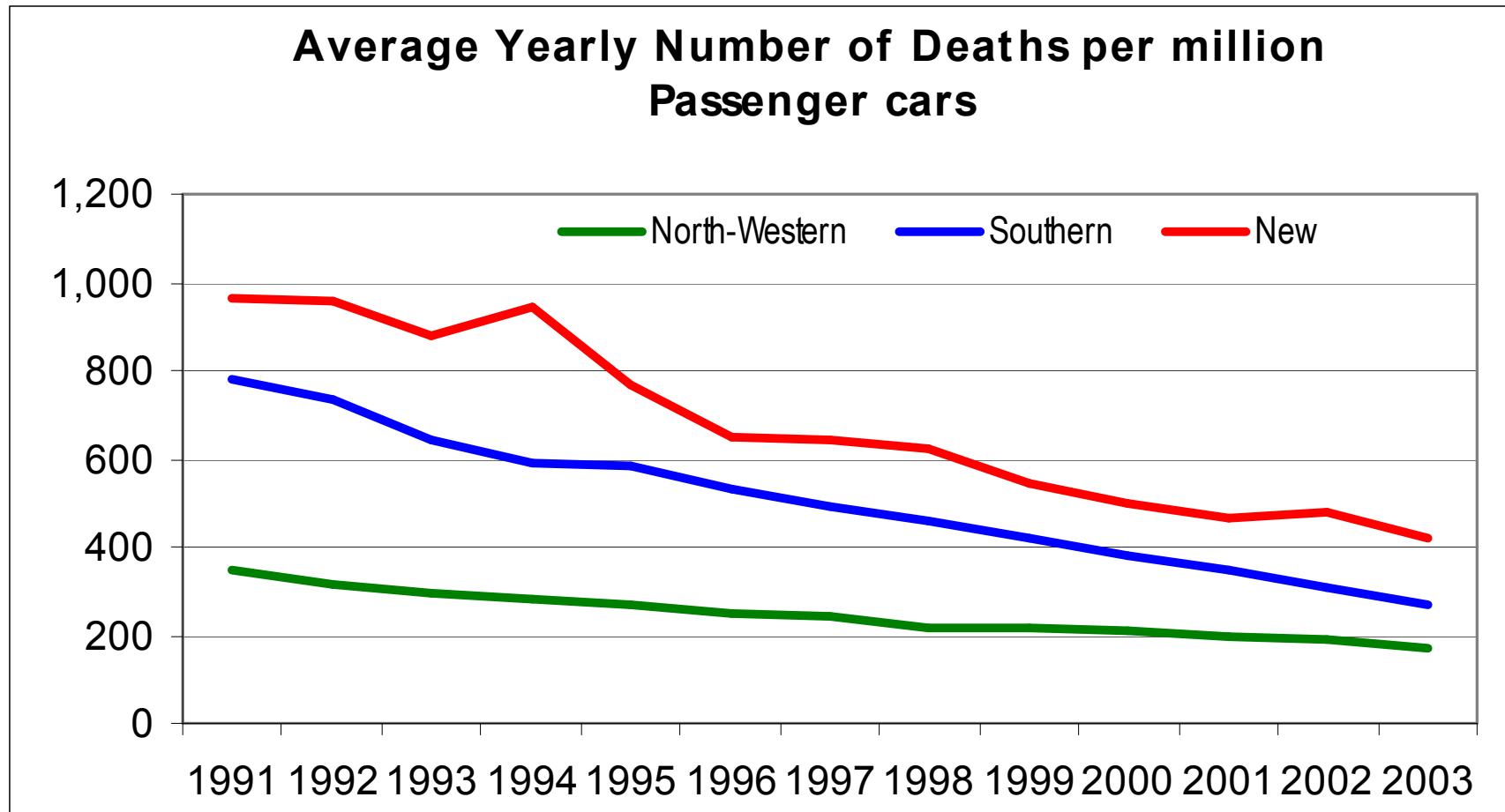
Basic road safety figures of the 25 EU countries

Road accident deaths per million passenger cars



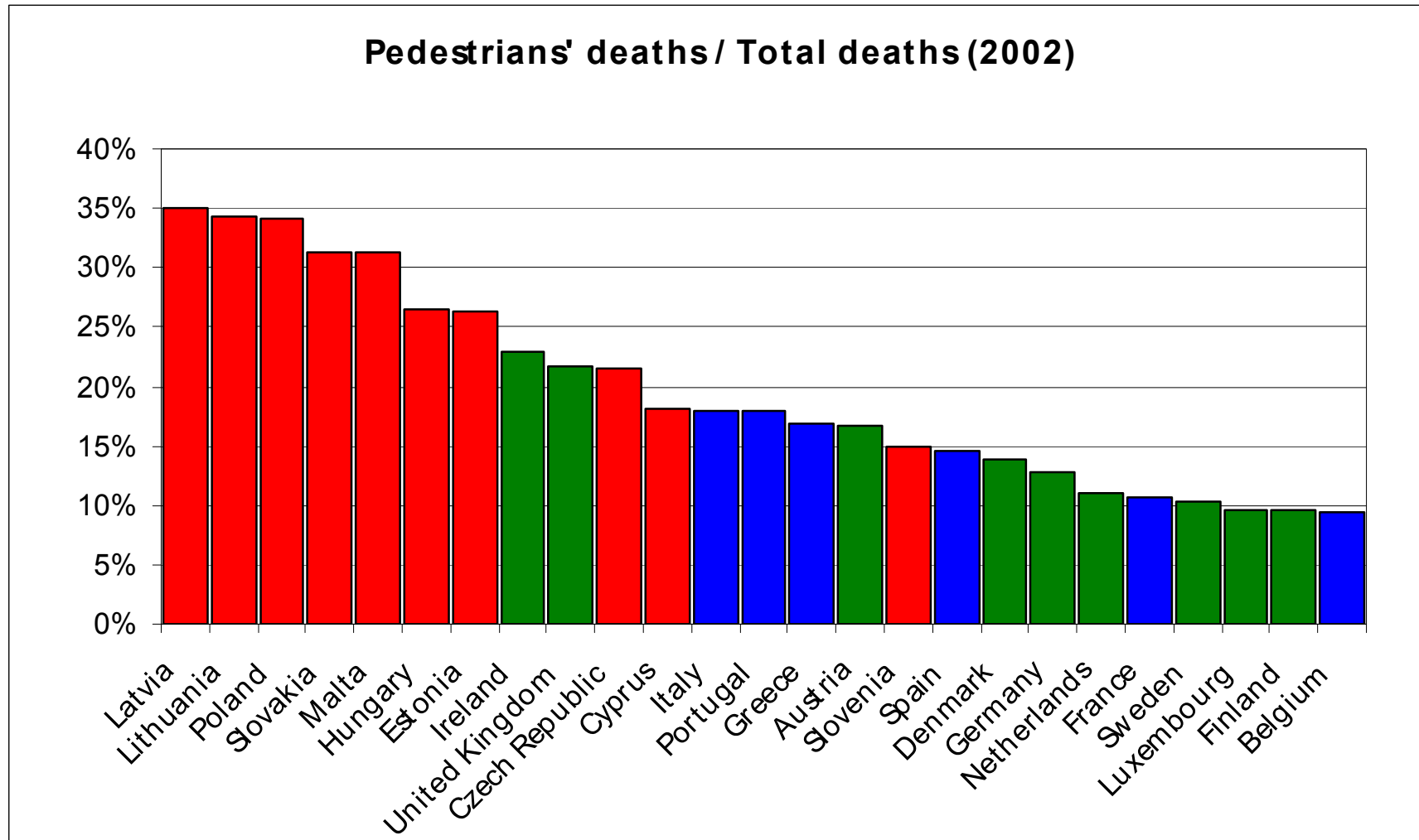
Basic road safety figures of the 25 EU countries

Road accident deaths per million passenger cars



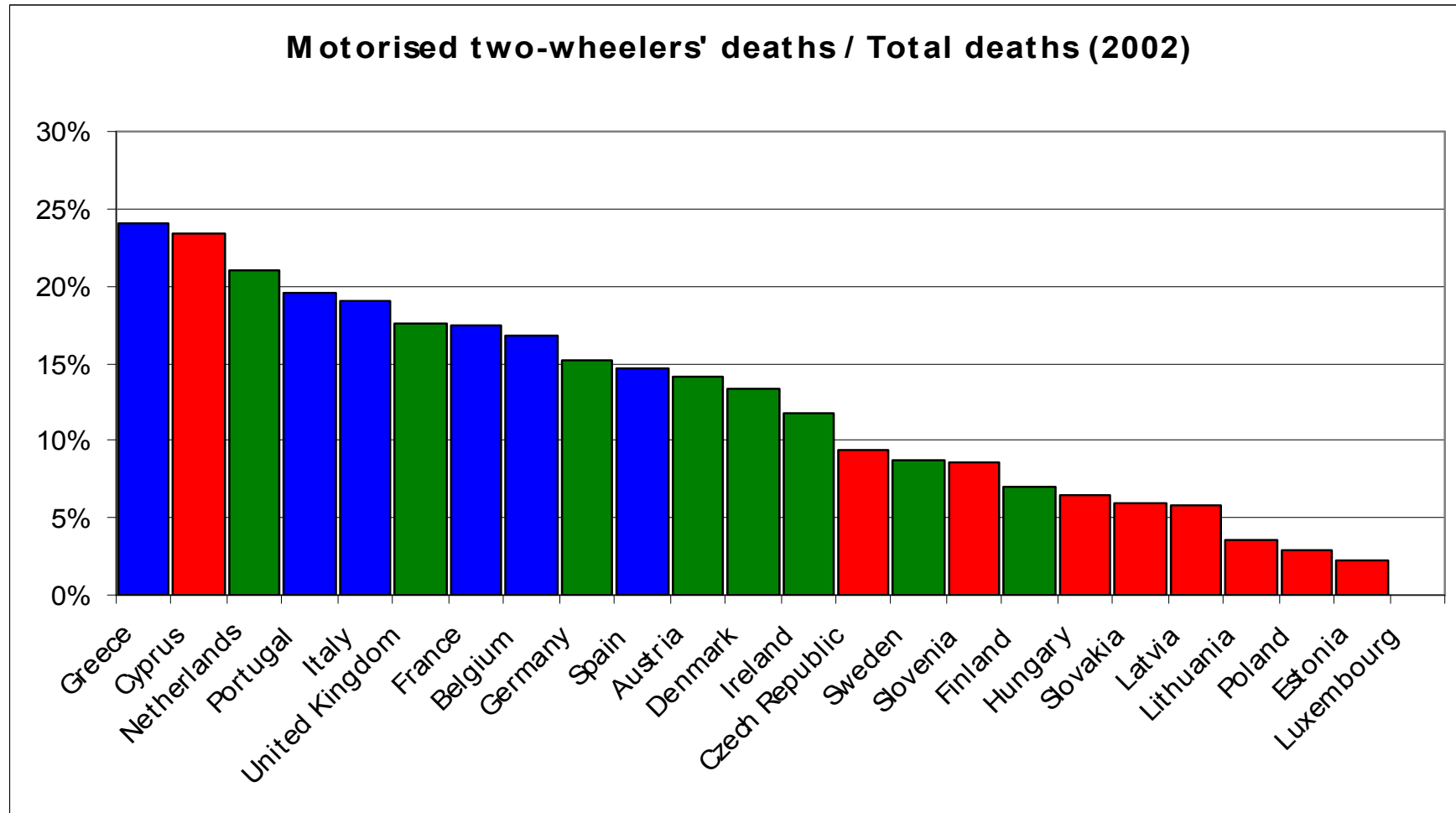
Vulnerable road users

Pedestrians' deaths



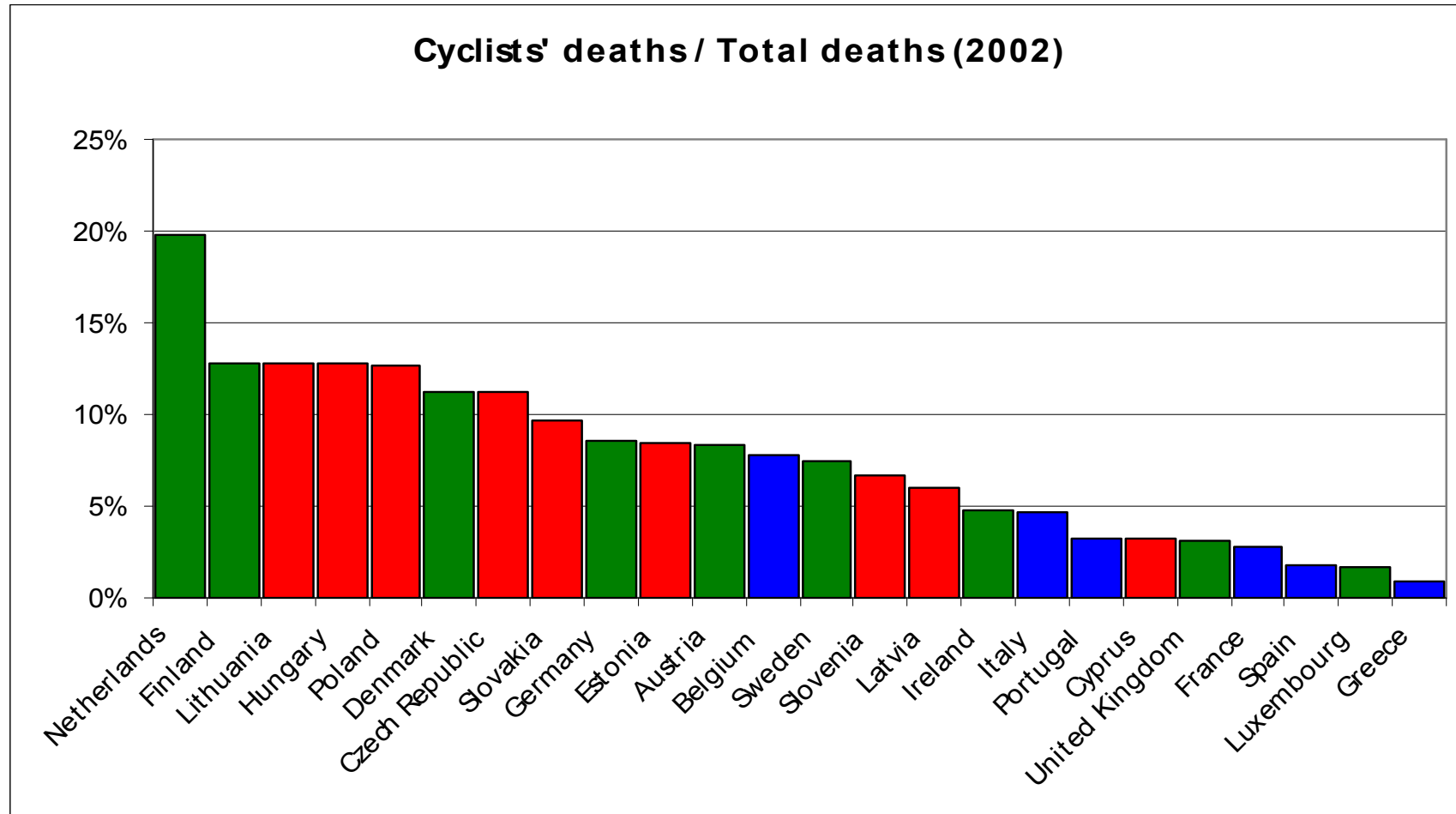
Vulnerable road users

Motorised two-wheelers' deaths



Vulnerable road users

Cyclists' deaths



The quality of available road safety data

The questionnaire focuses on:

- road accident data collection system
- road accident data quality
- exposure data
- road accident data analysis

The questionnaire was answered by:

“North-Western countries”	“Southern countries”	“New countries”
Austria	Belgium	Cyprus
Denmark	France	Czech Republic
Finland	Greece	Hungary
Germany	Italy	Latvia
Ireland	Portugal	Lithuania
Netherlands	Spain	Malta
Sweden		Poland
United Kingdom		Slovenia

Road accident data collection system

- Road accident data are **collected by the Police**.
- **Road accident databases** are mainly maintained by the Police, Ministries and Statistical Services.
- Data regarding **damage only accidents** are collected by the Police and/or insurance companies.
- In most of the EU 15, data are **collected at local/regional level** (not systematically).
- Most **New Member States** do not maintain accident databases at local level.

Road accident data quality

- **Underreporting of accidents** (missing records and missing data elements of accidents)
- Underreporting **has not been thoroughly investigated.**
- **Data unreliability** on crucial road safety factors (alcotest results, use of helmet/seat belt, speed)
- **Fewer road accident data missing** in the New Member States
- **Different definitions used** in most of the European countries for serious and slight injuries

Exposure data

- Inconsistencies or **failure to collect** exposure data (especially vehicle-kilometres and person- kilometres)
- Vehicle- and person-kilometres data could be collected by using both the **traffic counts system** and **national travel surveys**.
- Collecting good quality data on exposure is **expensive**.
- Collecting exposure data leads to **better policy making**.

Road accident data analysis

- Road accident data analysis carried out by the **competent Statistics Authority**, Ministries, Research Institutes and the Police
- **Lack of direct access** to user-based information from disaggregate road accident data files
- Implementation of **appropriate safety measures** does not always follow road accident analysis
- Improving road safety rarely has the **highest priority** in the transport planning process.
- Road accident data analysis **should be improved** both at national and local/regional level.

Recommendations

Improving data collection system

- **Regular review** of the design and operation of the national data collection system
- **Better training** of people involved in the task
- Collection of data on **damage-only accidents**
- **Common system** for recording road accident data among EU countries
- Use of **electronic systems** in the data collection process

Recommendations

Improving data collection system

- Introduction of in-vehicle "**black box**" devices
- Use of **GPS systems** for recording the location of the accidents
- **Harmonisation** of the accident collection forms in the EU countries
- Collection of **good quality exposure data**
- Collection of exposure data by **qualified institutions**, using a uniform methodology
- Regular **studies on underreporting**

Recommendations

Improving use of data

- **Road safety policy** to be firmly based on evidence
- **Systematic assessment** of the effectiveness of road safety measures
- Increase of the number of **professional analysts**
- **Wider access** to national accident databases
- **Comparison of the risks** of road travel modes with the risks of non-road modes