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Accidents and Disasters

Overview of the EU's action

Technical University of Crete (TUC)

Training of teaching staff for innovative teaching methods

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The views expressed are those of the author and do not necessarily represent official positions of the European Commission

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Protecting Citizens from Accidents and Disasters

Methodological introduction

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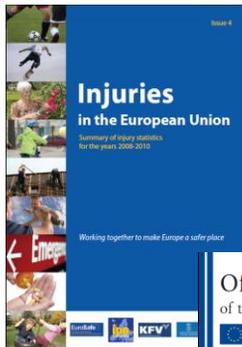
Basis for decision-making

- **Human impact**
 - Global burden of disease and Global risks (WHO statistics)
 - Injuries in the EU (EU statistics)
- **Economic impact**
 - Re-insurance data (Munich RE statistics)
- **Public opinion**
 - Opinion polls (Eurobarometer)
 - Mass media
- **Industrial, political and academic lobbies**
- **Competences conferred by the Treaties (legal basis)**
 - Exclusive, shared with or supportive to the Member States

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Sources



Official Journal of the European Union C 202

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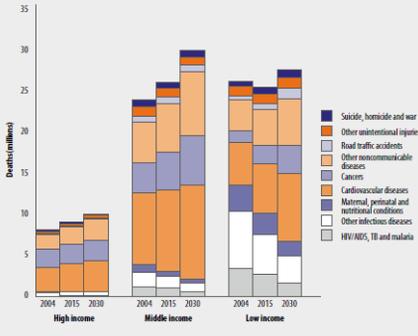
31942/2016	Amended version of the Treaty on European Union and the Treaty on the Functioning of the European Union	1
	Constitutional status of the Treaties on European Union	11
	Constitutional status of the Treaties on the Functioning of the European Union	11
	Proses	200
	Access to the Treaties on the Functioning of the European Union	200
	Declaration signed by the Head of the International Conference which adopted the Treaty of 1957 on 11 December 1957	200
	Index of amendments	261
31942/2016	Charter of Fundamental Rights of the European Union	309



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Figure 15: Projected deaths by cause for high-, middle- and low-income countries



WHO projections

Figure 27: Ten leading causes of burden of disease, world, 2004 and 2030

2004 Disease or injury	As % of total DALYs	Rank	Rank	As % of total DALYs	2030 Disease or injury
Lower respiratory infections	6.2	1	1	6.2	Unipolar depressive disorders
Diarrhoeal diseases	4.8	2	2	5.5	Ischaemic heart disease
Unipolar depressive disorders	4.3	3	3	4.9	Road traffic accidents
Ischaemic heart disease	4.1	4	4	4.3	Cerebrovascular disease
HIV/AIDS	3.8	5	5	3.8	COPD
Cerebrovascular disease	3.1	6	6	3.2	Lower respiratory infections
Prematurity and low birth weight	2.9	7	7	2.9	Hearing loss, adult onset
Birth asphyxia and birth trauma	2.7	8	8	2.7	Refractive errors
Road traffic accidents	2.7	9	9	2.5	HIV/AIDS
Neonatal infections and other*	2.7	10	10	2.3	Diabetes mellitus
COPD	2.0	13	11	1.9	Neonatal infections and other*
Refractive errors	1.8	14	12	1.9	Prematurity and low birth weight
Hearing loss, adult onset	1.8	15	15	1.9	Birth asphyxia and birth trauma
Diabetes mellitus	1.3	19	18	1.6	Diarrhoeal diseases

COPD, chronic obstructive pulmonary disease.

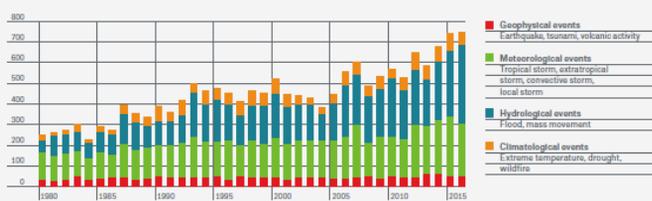
* This category also includes other non-infectious causes arising in the perinatal period apart from prematurity, low birth weight, birth trauma and asphyxia. These non-infectious causes are responsible for about 20% of DALYs shown in this category.

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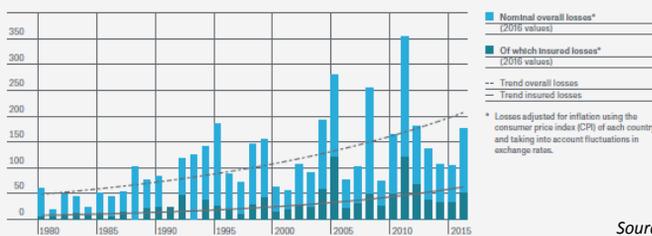


Natural hazards

Number of loss events 1980-2016



Overall losses and insured losses 1980-2016 (in US\$ bn)



Source: Munich RE

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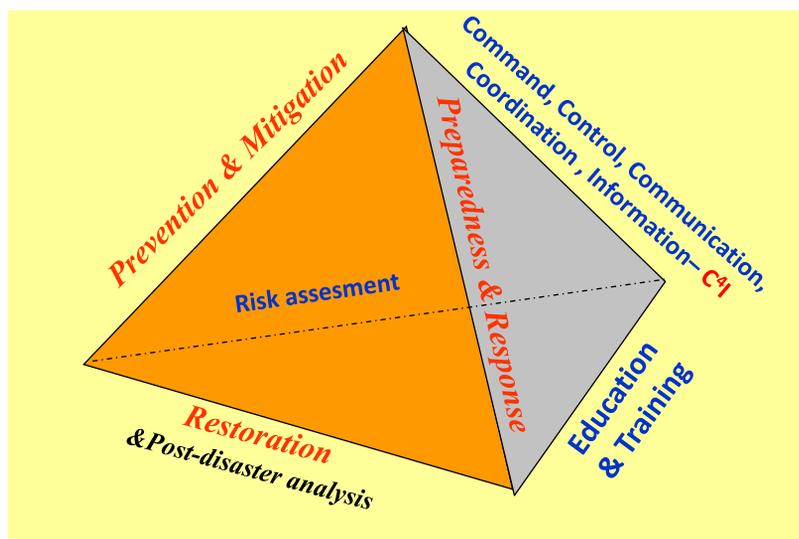
Psychological element

- Enschede (NL) fireworks explosion in 2000
 - 22 dead
 - 947 injured
 - 12.000 sessions with psychologists in the next 4 years
- Post-traumatic stress disorder (PTSD)
 - Compare with forecasted increase in depressive disorders

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Protecting citizens – a methodology



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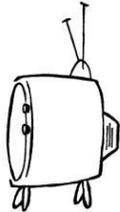
Response's disciplines



Search & Rescue
(Fire brigade, Coast guard)*



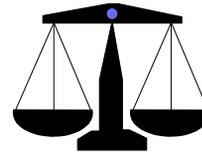
Emergency Medical Services*
(Hospitals)



Mass media



Order
(Police)



Judiciary



Heavy means
(Army, Red Cross*, NGOs*)

* Civil Protection personnel in EU-27 ~ 15 million people

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The EU's action

A non exhaustive overview

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EU legislation – Prevention (Workplace)

- DIRECTIVE on the minimum health and safety requirements for the use by workers of **personal protective equipment at the workplace**
- DIRECTIVE on the minimum requirements for the provision of **safety and/or health signs at work**
- DIRECTIVES on workplaces, work equipment, explosive atmospheres, mobile construction sites, mineral- extracting industries (drilling & surface and underground), manual handling of loads, display screens, noise, vibrations, electromagnetic fields, carcinogens/mutagens, chemical/biological agents, asbestos, pregnant women, young people.

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EU legislation – Prevention (Transport)

- Road/Rail transport of **dangerous goods** (directives, inspectors, specifications for vehicles & containers), Safety in tunnels
- **Aviation safety**, European Aviation Safety Agency, Skills of air personnel
- Action for **road safety** (shared responsibility)

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EU legislation – Prevention (Products/Services)

- **Product safety** and recall – Early warning network, Directives on chemicals
- Fire safety in hotels
- Directives on explosives for non military uses, pressure equipment
- **Eurocodes** (structural design, concrete, steel, timber, masonry structures, earthquake and fire resistance)

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EU legislation – Response (Telecommunications)

Emergency services



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eena.org

Authorities



Special networks

Citizens



Sirens,
Radios & TV,
GSMs

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EU legislation – Public health, Food safety

- **Public health**
 - Infectious diseases **monitoring networks**, European Centre for Disease Prevention and Control
 - Directives on blood, tissues, cells, **tobacco products**
 - Recommendations on nutrition, drugs, mental health, alcoholism, exercise
 - Public health **action programme** (shared responsibility)
- Regulations, Directives on **Food safety**
- **Early warning**, emergencies, crisis management

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EU legislation – Disasters (chemical, nuclear, ...)

- Directive - control of major-accident hazards involving dangerous substances (**Seveso**)
 - Safety report, emergency plans, land use, information to the public, inspections, substances (types, amounts, industries), Major Accident Hazards Bureau (MAHB)
- Directive on safety standards for protection against the dangers arising from exposure to **ionising radiation**
 - Dose limits, emergency plans, information to the public, iodine pills
- Decision on arrangements for the early exchange of information in the event of a **radiological emergency** (ECURIE network)
- Directive on the identification and designation of European **critical infrastructures** and the assessment of the need to improve their protection
- Directive on safety of offshore oil and gas operations

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EU legislation – Disasters (other)

- **Marine pollution** (inspections, monitoring, double hull vessels)
- **Earthquakes** (building materials, Eurocodes)
- Directive on **floods** (prevention, protection, mitigation, early warning system - JRC)
- **Forest fires** (Rural development, European forest fire information system – JRC)
- **Civil Protection Mechanism & Funding Instrument**
- **Solidarity Fund**
- **Humanitarian Aid** (Emergency & Food aid, Support of Refugees and migrants)

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Research and Innovation – Horizon 2020 chapters

- Leadership in Enabling and Industrial Technologies
 - Space (**Galileo**, Earth Observation, Space Surveillance and Tracking)
- Climate Action, Environment, Resource Efficiency and Raw Materials
 - Climate change resilient economy, Earth Observations (climate, energy, **natural hazards** & societal challenges)
- Societal Challenges
 - Health, **Secure societies** (critical infrastructures, crime & terrorism, digital security)

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Research and Innovation – Procedures

- Consultations on annual priorities (contact your national representative)
 - Work programme ⇒ Calls for proposals
- Become an evaluator
 - Networking in your area of expertise
- Submit project for funding
 - Consortium
 - European dimension
 - Useful for operational services

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Thank you!

Questions



More information

- <http://europa.eu/>
- <http://eur-lex.europa.eu>
- <https://ec.europa.eu/jrc/en>