

Cost Action TU0904
Integrated Fire Engineering and Response

European Fire Statistics - an overview and practical directions



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Snímek 1

k1

Fire safety - very wide issue so it will be only tough in the presentation - inspiration for a discussion

kbiskup; 1.7.2010

Fire statistics - profile

fire statistics = statistics of fire safety/protection



desireable data

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each 3 sec. fire
breaks out
somewhere!!!

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- helpful tool (e.g. solving problems)

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- essential item for fire risk assesment
- helpful tool (e.g. solving problems)
- useful tool (e.g. lobbying)
- **danger tool (e.g. manipulations)**

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Need of fire statistics - examples

What?

kind of data

(1) frequency of fires
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(2) causes of fires

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- (2) construct. engineers
- (3) insurance companies
- (4) scientists
- (5) public administration

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- (1) application frequency of certain kinds of equipment
- (2) type & quantity of fire extinguishing agents

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- (2) purchase plans
- (3) evaluation of effectiveness

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(1) frequency of fires occurrence at different objects
(2) causes of fires

(1) application frequency of certain kinds of equipment
(2) type & quantity of fire extinguishing agents

(1) work load of fire units and their numbers
(2) working time

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(1) fire risk assessment
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(3) performance based design

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(2) purchase plans
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(1) costs - effectiveness of fire protection
(2) distribution of fire stations

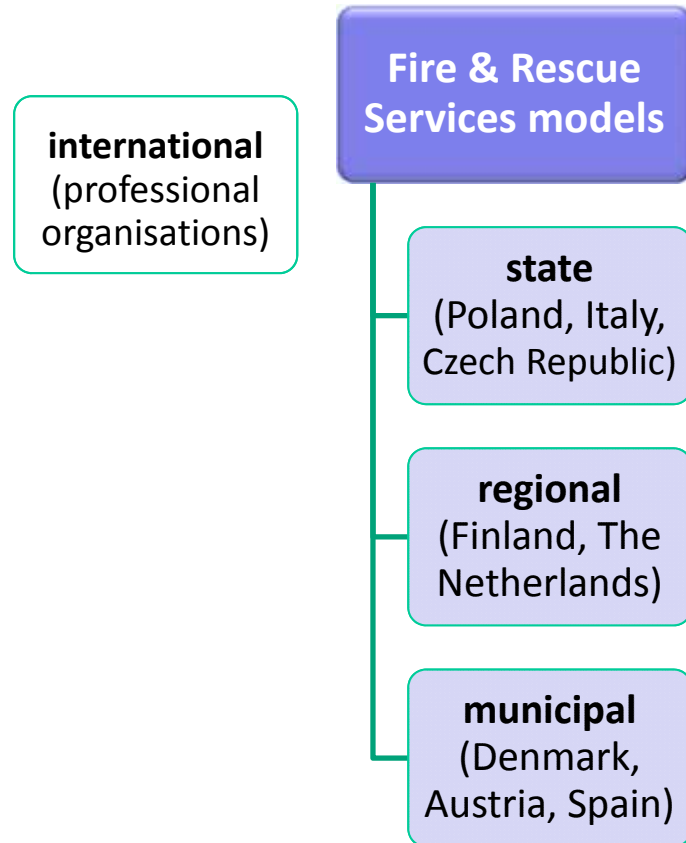
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Levels of fire statistics (collection)



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international
(professional
organisations)

Fire & Rescue
Services models

state
(Poland, Italy,
Czech Republic)

regional
(Finland, The
Netherlands)

municipal
(Denmark,
Austria, Spain)

Levels of fire
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**local /
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each year „fire
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Levels of fire statistics collection

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Fire statistics in European countries

full data

some data

no data

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Where fire statistics can be found?

➔ in home countries (national level)

**Fire & Rescue
Services**

- range depends on organisational model of F&RS
- often available on-line on webpages
- practically always available where professional Fire & Rescue Service operate (e.g. big cities)

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Fire protection associations

- e.g. Irish Chief Fire Officers Association, German Fire Protection Association, list of fire protection associations on: <http://www.f-e-u.org/associations.php>
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National statistical offices

- only basic data
- list of national statistical offices available on Eurostat webpage:
http://epp.eurostat.ec.europa.eu/portal/page/portal/links/national_statistical_offices

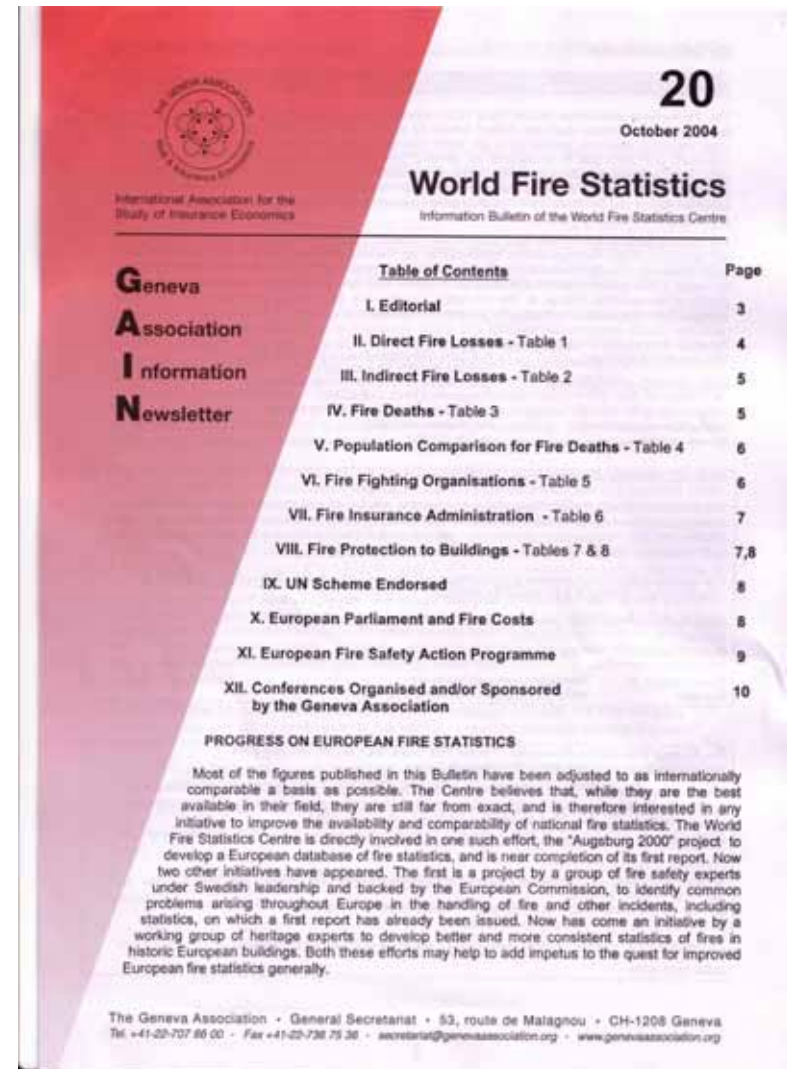
Where fire statistics can be found? (1)

➔ on international level



Annually about 2.200.000 fires are registered in all Europe, as a result of them about 25.000 people die!!!

- established in **1981**
- affiliated to **Geneva Association** (international insurance think tank for strategically important insurance and risk management issues)
- publishing annual **Information Bulletins** analyses **only „costs of fire“**, i.e. public losses as a result of fire and fire fighting expenditure
- **available on** webpages: www.wfsc.info, www.genevaassociation.org
- **subscription** of Bulletins possible



Where fire statistics can be found? (2)

➔ on international level

Centre of Fire Statistics (CFS)
of the International Association
of Fire and Rescue Services (CTIF)

- established in **1995**
- publishing annual **World Fire Statistics Reports**
 - studies fire situation in the countries and large cities and different aspects of fire services activities in the world
- presents fire situation in: over **50 states** of the earth, in which live **2/3 of the world population**, as well as in **30 largest cities** of our planet
- **available on** a CTIF webpage: www.ctif.org

**90-95% of all fire deaths
happen in residential
buildings!!!**



Fire statistics – limitations and traps

Country	Popula- tion thous.	Average number of fires a year per 1000 inh.:				
		struc- ture fires	vehicle fires	structure and vehicle fires	other	All fires
USA	270000	1,9	1,4	3,3	3,2	6,5
Russia	146500	1,6	0,1	1,7	0,1	1,8
Great Britain	59009	2,4	1,2	3,6	4,4	7,9
Italy	56063	0,8	1,1	1,9	1,2	3,1
Poland	38800	1,0	0,2	1,2	1,9	3,1
Uzbekistan	25000	0,5	0,0	0,5	0,2	0,7
Romania	22750	0,2	0,0	0,3	0,1	0,4
Kazakstan	15777	0,2	0,0	0,3	1,3	1,6
Netherlands	15696	0,8	0,4	1,2	2,5	3,6
Czechia	10400	0,8	0,3	1,1	1,0	2,1
Byelorussia	10203	0,8	0,0	0,8	0,7	1,5
Hungary	10135	0,8	0,1	0,9	1,7	2,6
Portugal	9934	0,8	0,2	1,0	4,3	5,3
Sweden	8848	1,4	0,4	1,8	1,7	3,5
Bulgaria	8230	0,3	0,2	0,4	2,3	2,7
Slovakia	5368	0,5	0,2	0,7	1,4	2,1
Georgia	5266	0,5	0,0	0,5	0,3	0,8
Finland	5147	0,6	0,4	1,0	1,2	2,2
Croatia	4500	0,4	0,1	0,5	1,1	1,6
Norway	4370	1,2	0,3	1,6	1,7	3,3
Lithuania	3700	1,3	0,3	1,6	2,0	3,6
Latvia	2434	1,0	0,2	1,2	1,4	2,6
Estonia	1600	2,4	0,3	2,7	4,6	7,3
Luxemburg	435	1,9	0,4	2,3	1,9	4,2
Total	740165	1,5	0,8	2,2	2,0	4,2

Fire statistics – limitations and traps



Comparability

- different principles of fire statistics registration in every EU-member state
- different definitions of fire related terms, e.g.: „fire”, „fire death”, „size of fire”, „fire loss”, „fire costs” etc.

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Reliability/credibility

- Do all national fire statistics reports present real value?
- Who and how prepare national fire statistics data?
- Have you asked precise question/request?

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- Fire statistics can be very useful but also very dangerous tool
- To provide reliable/credible statistical analyse it is necessary to put a lot of effort
- Use a rule of limited trust, having in mind following popular statement:
„There are three kinds of lies: lies, damned lies, and statistics!!!”

Thank you !