



Multidisciplinary approach

Questions + Problems
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Multidisciplinary approach

The protection of lives and health of the people and the minimization of the damage of fires, accidents and other emergency cases has utmost priority.

What is important to our work?

Are we ready to learn of each other and together?



Multidisciplinary approach

1. What is Multidisciplinary approach?
2. Situation of the fire brigades in the world
3. Situation of the fire brigade in Turkey
4. Tasks of the Services?
5. Multidisciplinary approach – is this a kind of cooperation?
6. How work together?
7. Multidisciplinary approach – what is practice?
8. Emergency tactic
9. Emergency management
10. What can we do better?
11. Conclusion – what we learned today?



What is Multidisciplinary approach?

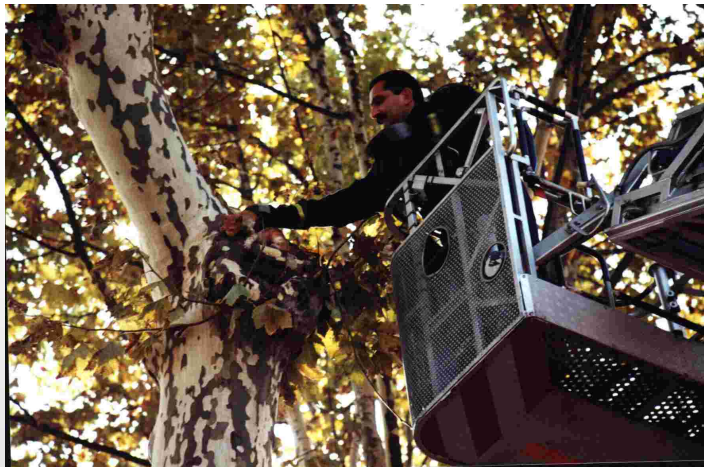
- Fire brigade activities in different areas, as
 - fire-fighting,
 - technical assistance,
 - medical rescue and
 - environment,
- Cooperation with other services
- Inter-disciplinary work is the base for the solution of emergency tasks

What is important to our work?

Cooperation and learning of each other – it's without alternative!



Daily work of Fire Brigades





The situation of the fire brigades in the world – total calls

State	Inhabitants	Total calls	Total calls by 1000 inhabitants
Japan	128.000.000	4.288.000	33,5
Germany	83.000.000	3.078.000	37.1
France	59.000.000	973.000	16,2
Poland	39.000.000	358.000	7,1

What is important to our work?

World-wide, there are 46 fire brigade calls on 1.000 inhabitants.



The situation of the fire brigades in the world – total fires

State	Inhabitants	Total fires	Fires by 1000 inhabitants
Japan	128.000.000	60.000	0,5
Germany	83.000.000	208.000	2,5
Turkey	69.000.000	60.000	0.9
France	59.000.000	272.000	4,6
Poland	39.000.000	121.000	3,1

What is important to our work?

World-wide, there are 1,6 fire calls on 1.000 inhabitants. With buildings fires, it is 1,05 fires by 1.000 inhabitants.



Dwelling Fires...





Fire deaths

State	Inhabitants	Deaths	Fire deaths per 100.000 inhabitants
Japan	128.000.000	1.840	1,4
Germany	83.000.000	575	0,7
Turkey	69.000.000	300	0.4
France	59.000.000	634	1,1
Poland	39.000.000	534	1,4

What is important to our work?

World-wide, there are 1,3 fire-deads on 100.000 inhabitants.



Fire-fighter deaths

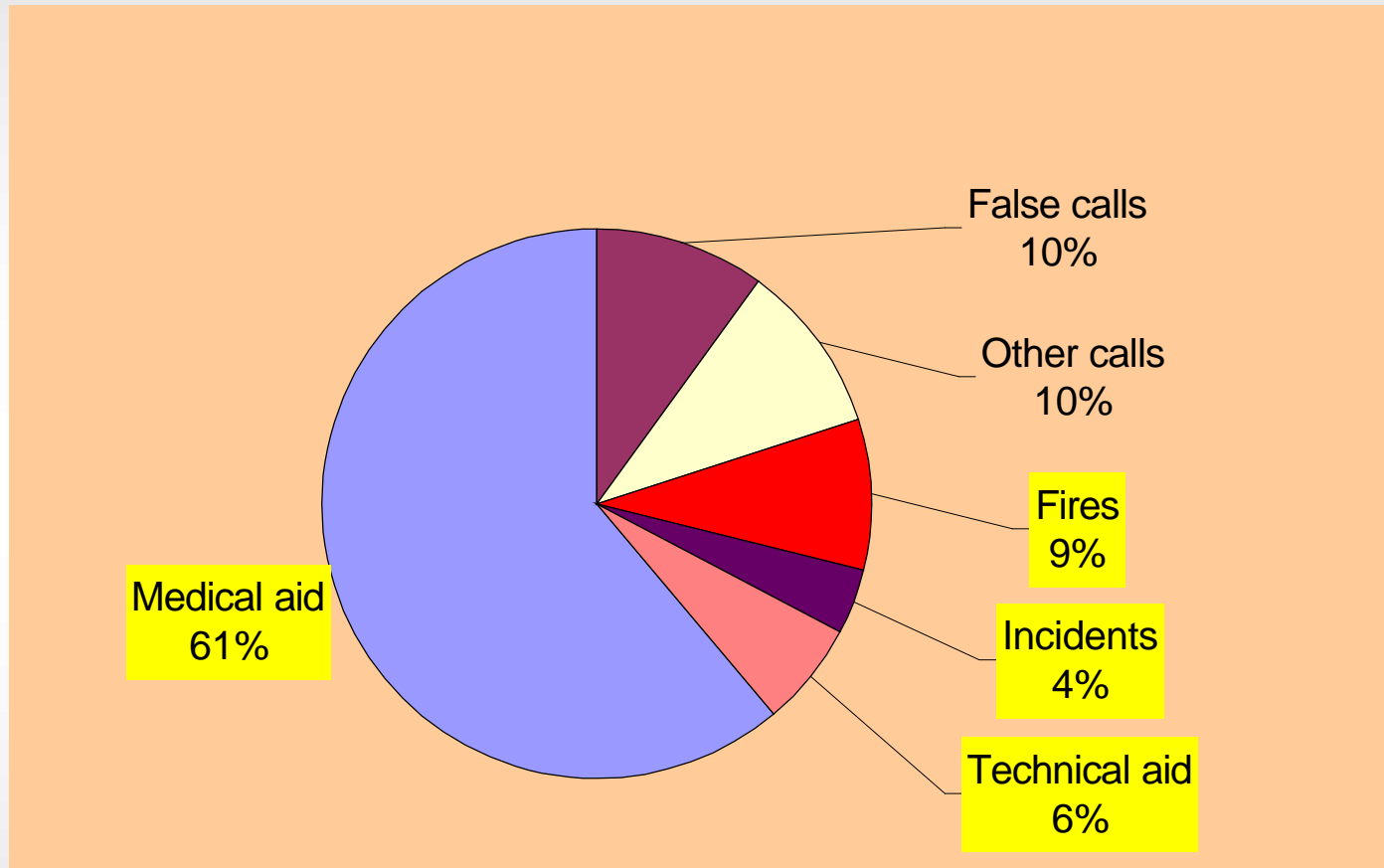
State	Inhabitants	Deaths	Fire-fighter deaths per 10.000.000 inhabitants
Japan	128.000.000	5,67	0,44
Germany	83.000.000	9,71	1,17
Turkey ²⁰⁰⁴	69.000.000	31,00	4.49
France	59.000.000	20,00	3,90
Poland	39.000.000	4,29	0,86

What is important to our work?

World-wide, annually approximately 250 fire-fighters die in fires. There are 3,16 deaths by 10.000 fire-fighters or 1,6 deaths by 10.000.000 inhabitants.



Number of calls by major type of call by the countries of the world (2000-2004)

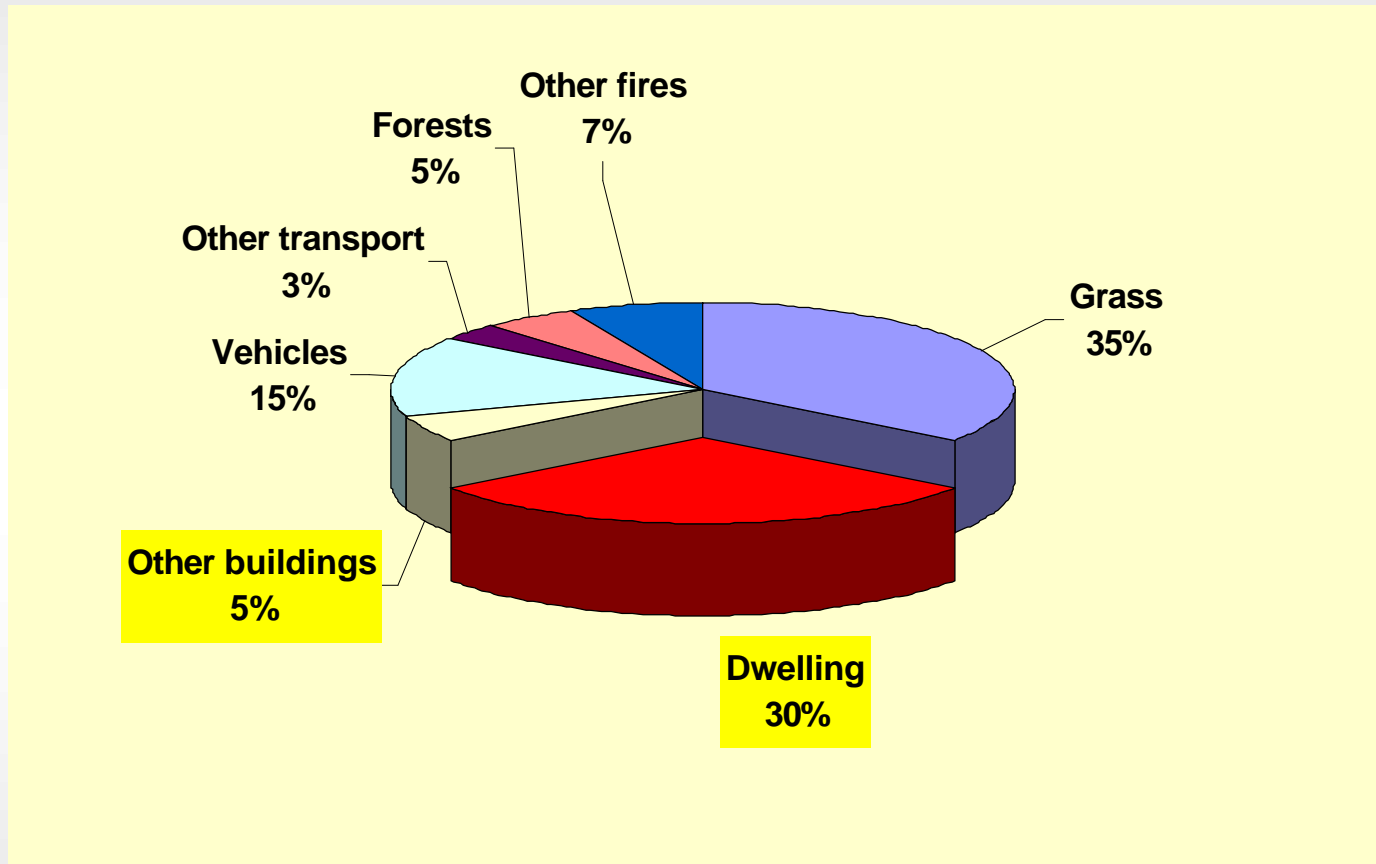


What is important to our work?

In each 10 percent of the calls there are fires and technical assistance.



General distribution of fires by fire origin in the countries of the world (2000-2004)

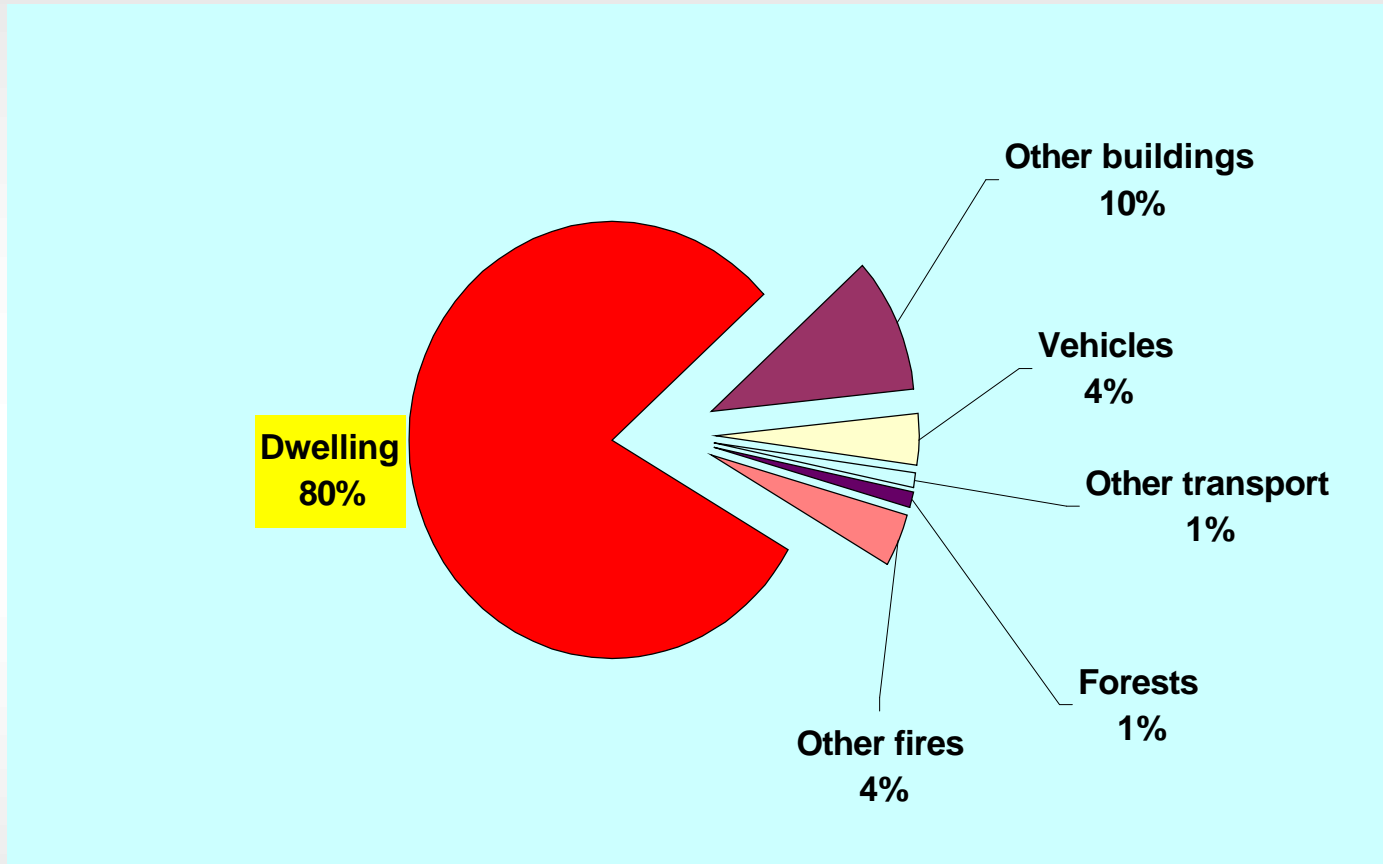


What is important to our work?

In each case 35 percent of the fires, it breaks out in buildings and in freelands.



Distribution of fire deaths by fire origin in the countries of the world (2000-2004)



What is important to our work?

80 percent of all fire deaths connected with dwelling fires.



Fire Situation in Turkey 1991-2004

Year	Number of Fires	Damage (mio. TL)	Average costs of 1 fire (mio. TL)
1991	24540	467146	19,04
1992	26144	577799	22,10
1993	26290	1441890	54,85
1994	28228	1798142	63,70
1995	29305	2937686	100,25
1996	31542	4470733	141,74
1997	33967	8146392	239,83
1998	44065	16029517	363,77
1999	43157	85806559	1988,24
2000	46433	45142683	972,21
2001	49109	54060921	1100,84
2002	42367	78766979	1859,16
2003	56482	564334810	9991,41
2004	60801	99334810	1633,77
Total	542430	963316067	1775,93

What is important to our work?

More fires and more damage!



Fire causes in Turkey (1991-2000)

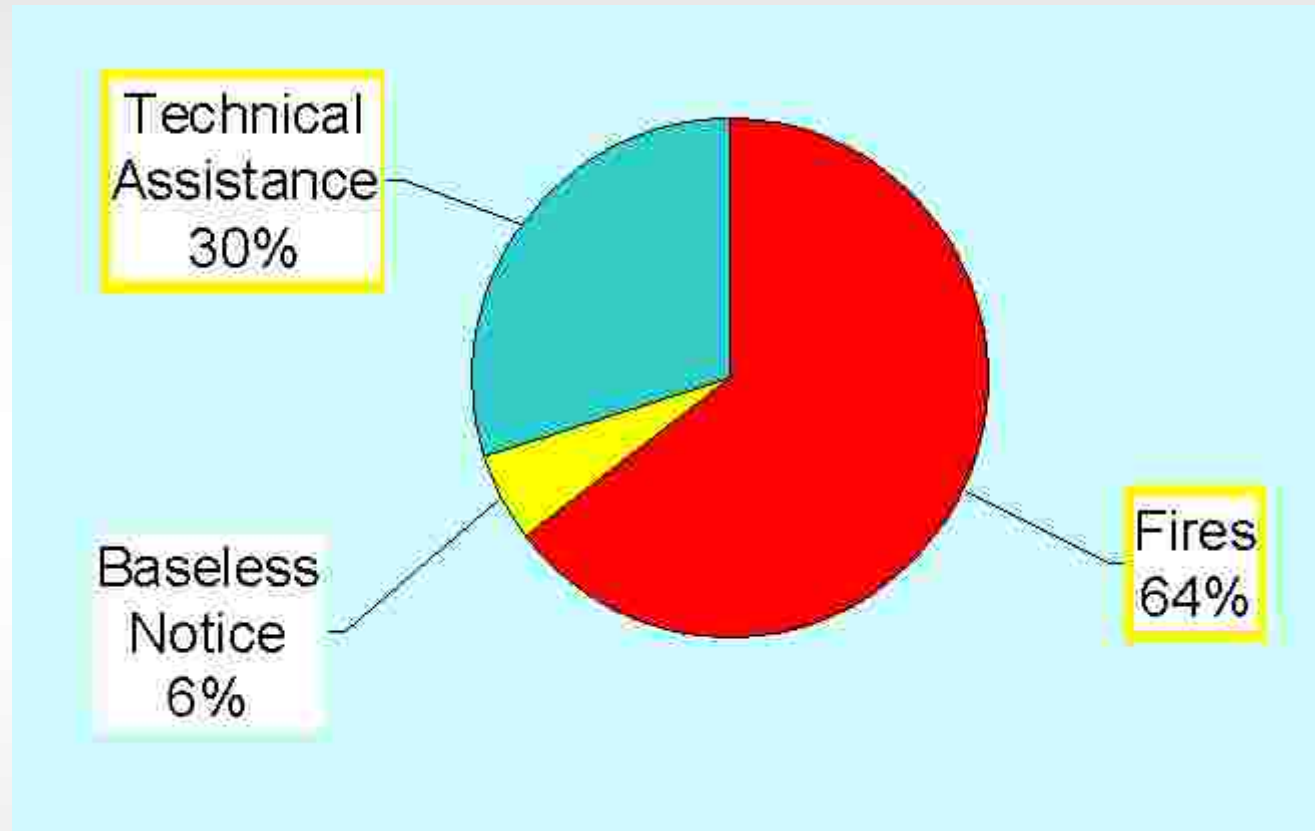
Causes of fires	Number of fires	Percent, %
Electricity	66245	19,9
LPG	23089	6,9
Stove	22193	6,6
Chimney	36758	11
Tobacco	94380	28,2
Oil	8193	2,4
Arson	10578	3,2
Lightening	594	0,2
Other causes	71641	21,6
Total	333.671	100

What is important to our work?

Main fire causes are tobacco and electricity; every 5th fire is unknown by cause.



Structure of Fire Brigade calls in Izmit (2004)

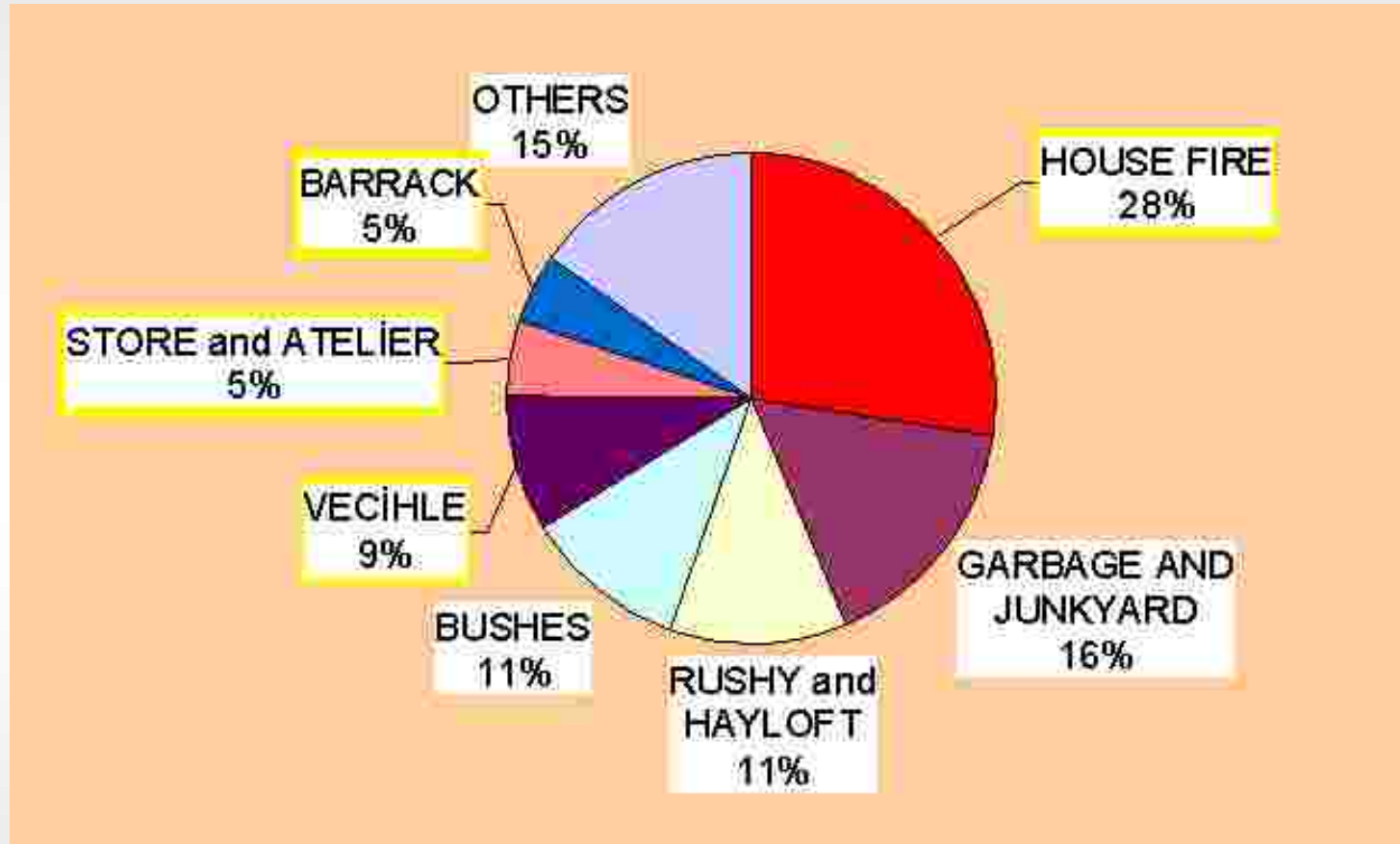


What is important to our work?

Main task of the fire brigade is fire-fighting; but: the share of technical assistance grows!



Distribution of fires by objects (Kocaeli Fire Brigade 2004)

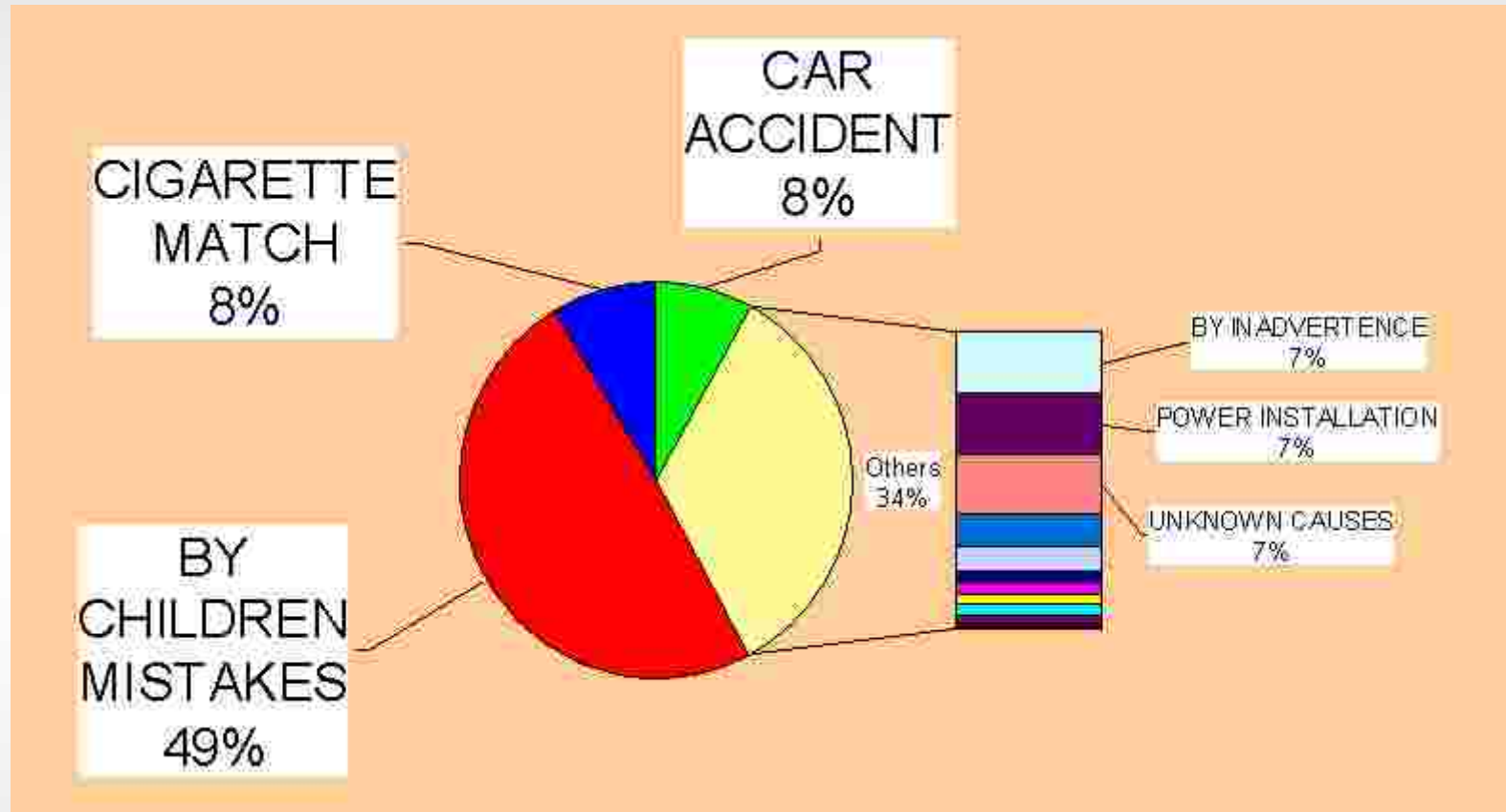


What is important for our work?

Majority of fires: in buildings and with vehicles



Causes of fires in Körfez (Province of Kocaeli, 2004)

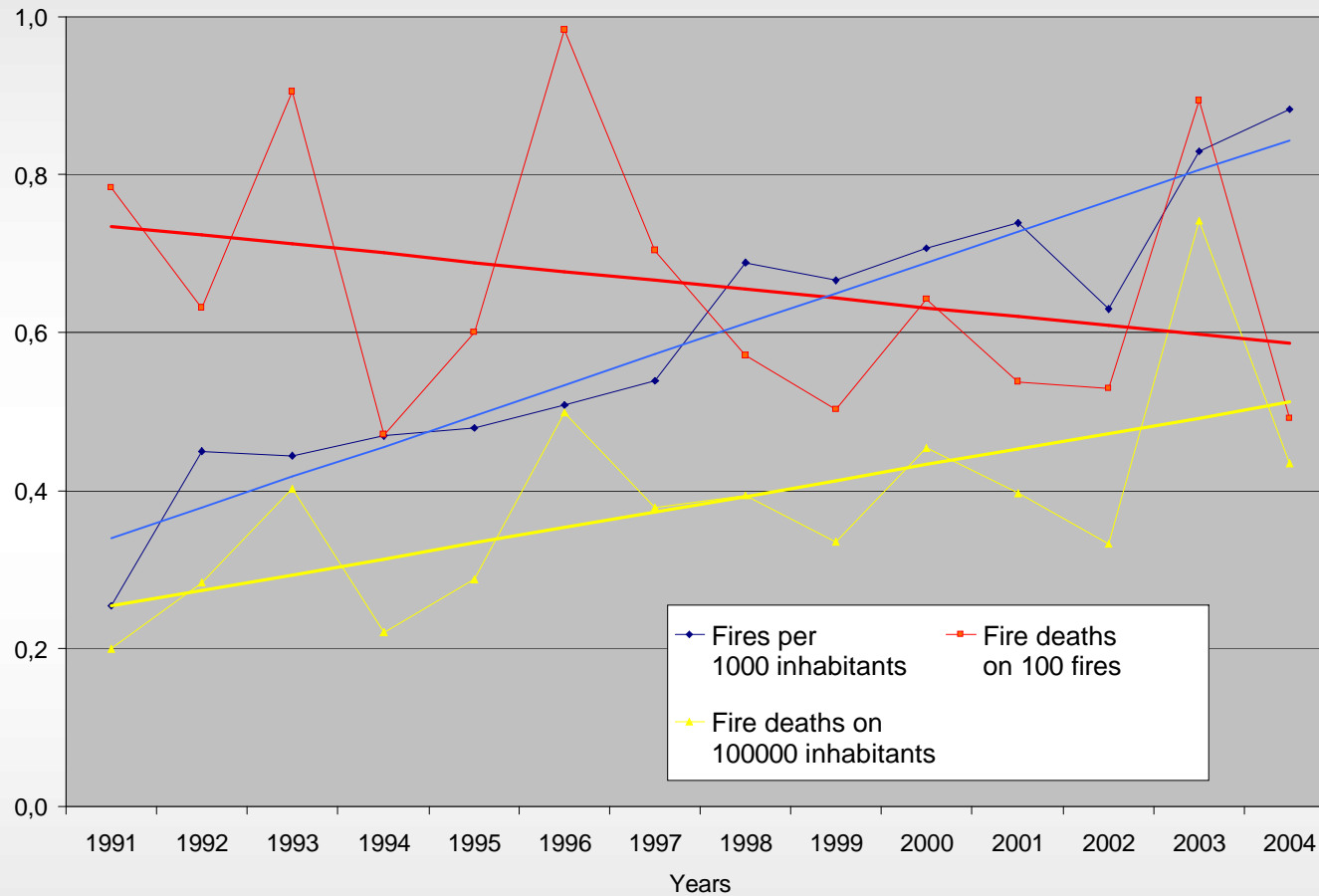


What is important to our work?

Fire cause number 1: wrong activities of the people



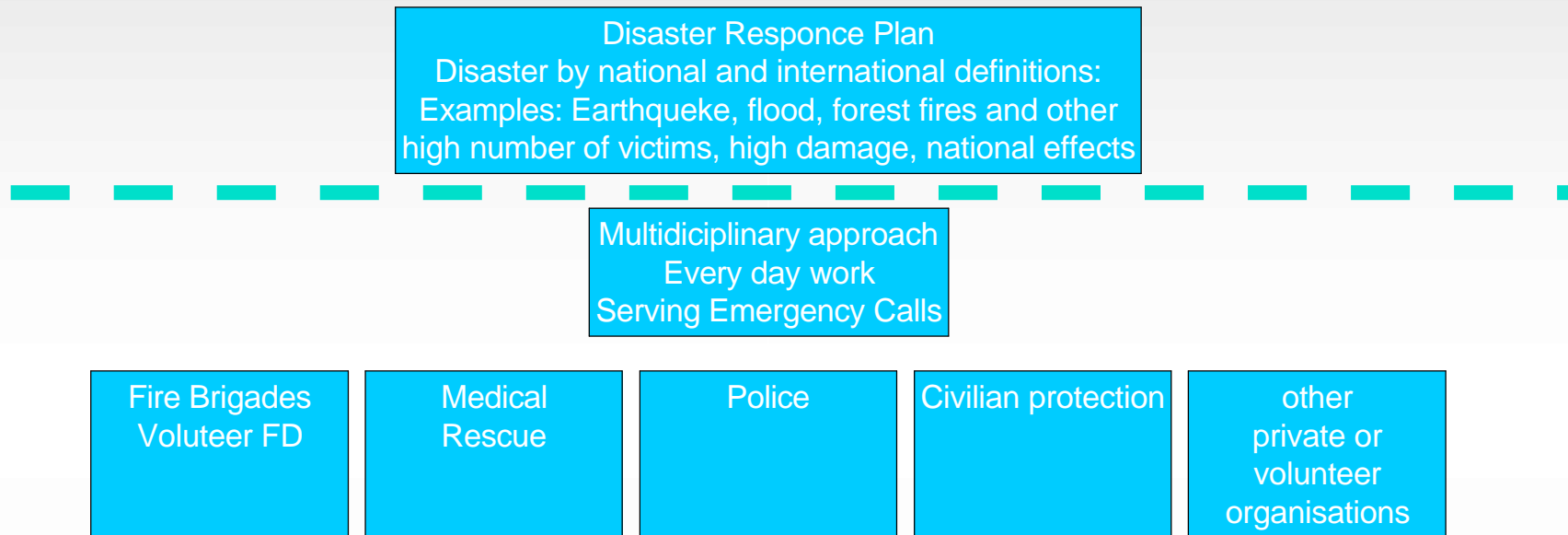
Fire Risks in Turkey



What is important to our work?



Disaster Response and Multidisciplinary approach



What is important to our work?

In each country, there are different definitions of Disaster but what doesn't work in the daily work, either won't work during Disaster!



Multidisciplinary approach – tasks of the services

- Fire brigades: fire fighting, rescue, emergency operations, hazmat and others;
- Medical rescue service: rescuing, treating, persons transportation, taking care of,
- Police: securing of emergency places, special internal police tasks.

What is important to our work?

Every support and rescue service have general and specific tasks. At the call scene, a cooperation is necessary!



The situation of the fire brigades an international overview

- Fire brigades work interdisciplinary:
 - fires,
 - accidents,
 - danger materials,
 - rescue service,
- To be a firefighter is a dangerous profession,
- Fire brigades require an interdisciplinary education,
- Fire brigades work together with all other services.

What is important to our work?

Fire brigades are world-wide the most strongest part of the emergency and rescue services!



Multidisciplinary approach. cooperation with other units of the administration

Fire brigades	Emergency Rescue	Police
Gaz supply	Elements of the infrastructure in cities	Power supply
Tele-communication	Water supply	Other services

What is important to our work?

Fire brigades require the support of all other services!



Multidisciplinary approach - terms of cooperation

- Responsibility for a concrete purview on the basis of laws;
- Competence of the rescue services in their own tasks;
- Responsibility, for victims, concerned and own members of service;
- Utilization of all organizational and technical possibilities, to help fast and expertly.



Multidisciplinary approach

as we work together as helpers and rescuer?

- Concrete and logical work division
- The right sequence of the work steps
- Control:
 - credits we all done,
 - about the victims and concerned all the imaginable help, to give come-leave?

What is important to our work?

Not the performance of the individual organization stands in the foreground of the activities. In the center, the total result stands: low victim numbers and minimal damage.



Command and Control – emergency tactics

- Police: the street must be evacuated as fast as possible?
- Rescue service: the injured persons must be brought as fast as possible into the hospital?
- Fire brigade: the fire danger must be spellbound and is freed fast the people from the vehicle?



Command and Control - Emergency management

Germany:

- Group leader :
Fire Brigade
- Consultants :
 - ✓ Rescue service
 - ✓ Police
 - ✓ Other services

Turkey:

- Group leader :
Everyone ?
 - ✓ All have own tasks
 - ✓ Everyone has an individual group leader
 - ✓ All work parallel



Command and Control at the incident scene

Fire Brigade in the own city

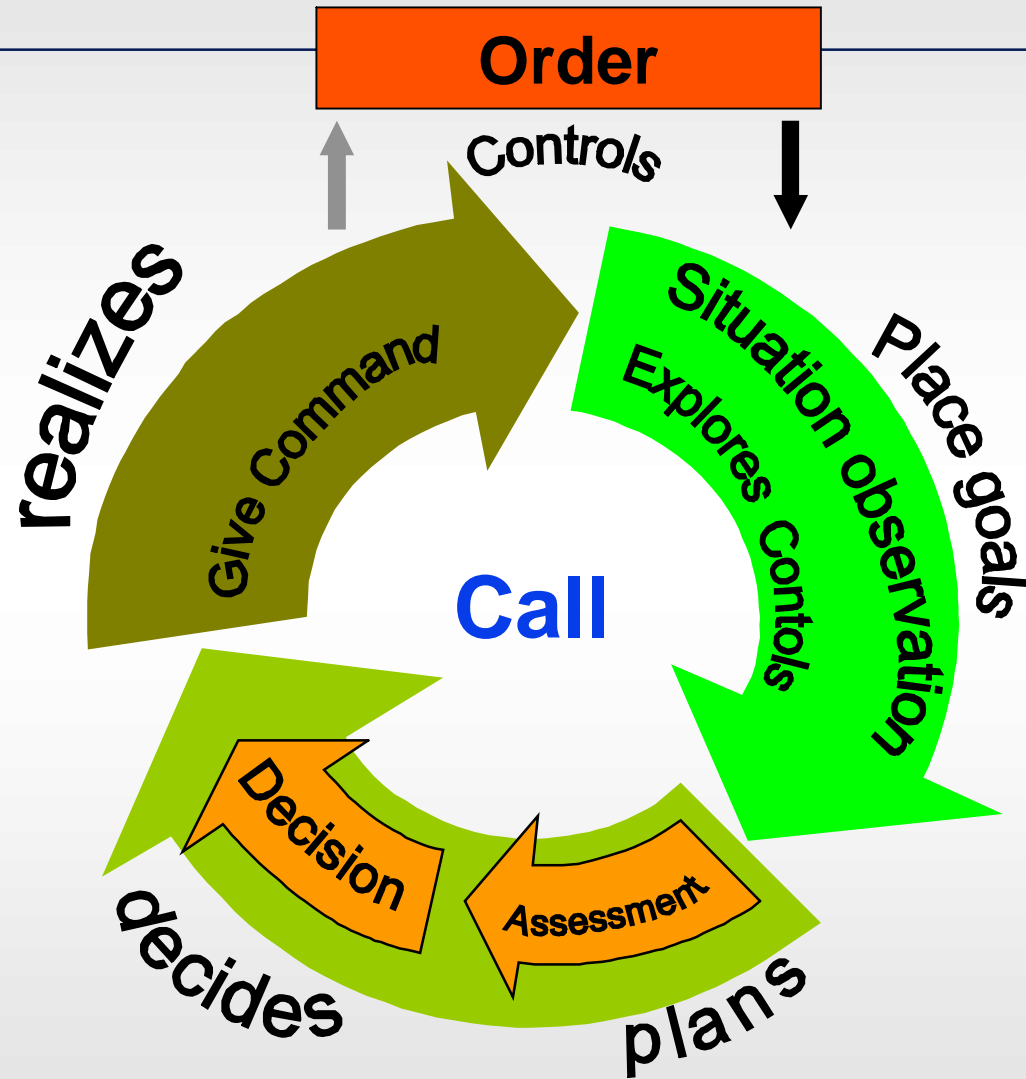
- Fire Brigade has the head of management
- Cooperation of all other services and leadership of the Fire Brigade

Activities of the Fire Brigade in the neighboring city or community

- Fire Brigade subordinates the group leader of the neighboring community
- Cooperation of all other services and leadership of the local Fire Brigade



Command and Control





Multidisciplinary approach - what can we improve?

- Work out a conception of a common emergency tactic
- Study of the technical appliances and equipments of the other services
- Meetings of Personnel from different services
- Common education



Multidisciplinary approach - common education?

- Fire brigade with Emergency service
- Emergency services with the fire brigade
- Police with fire brigade and Emergency services

What is important to our work?

Whoever is obliged to the cooperation must be ready to learn from his partners!



Multidisciplinary approach - what we learned today?

- Mechanization of the environment: buildings, means of transportation, appliances and much more
- all rescue services must learn to handle the mechanization. Therefore, it must be learned every day!
- The cooperation of the services necessarily is necessary!
- The cooperation necessitates work division, specialization and coordination!
- All must prepare: plans together and practices!

What is important to our work?

Whoever wants to the cooperation must be ready to learn from his partners!



Multidisciplinary approach – what are the nexts steps in Turkey?

- Implementation of Central National Fire School inside the Ministry of Interior
 - Central National Fire School train ***trainer*** for local Fire Brigades,
 - Central National Fire School educate and train **all** Fire Officers (Fire Engineers),
 - Central National Fire School educate and train **all** Fire Chiefs.
- Implementation of First Medical Aid education and training in every Fire Station for First Responder systems.
- Strategically planning in Fire Brigade include assessment of all real risks within the response area of the service. For this Fire Brigades should use new technical and scientific methods.
- Upgrading of Fire Brigades Law (types of Fire Brigades, Command and control regulation, cooperation with other services)

What is important to our work?

Success = cooperation + education + training



Thanks for the attention!



What is important to our work?

Changes are always difficult; important to do the first step!