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Mobile Applications for  
Emergency Response  
and Support

# Frederikssund-Halsnæs Brand- & Redningsberedskab



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## MEETING

Frederikssund Halsnæs Fire & Rescue Service (FHFRS)

8-9 December 2014

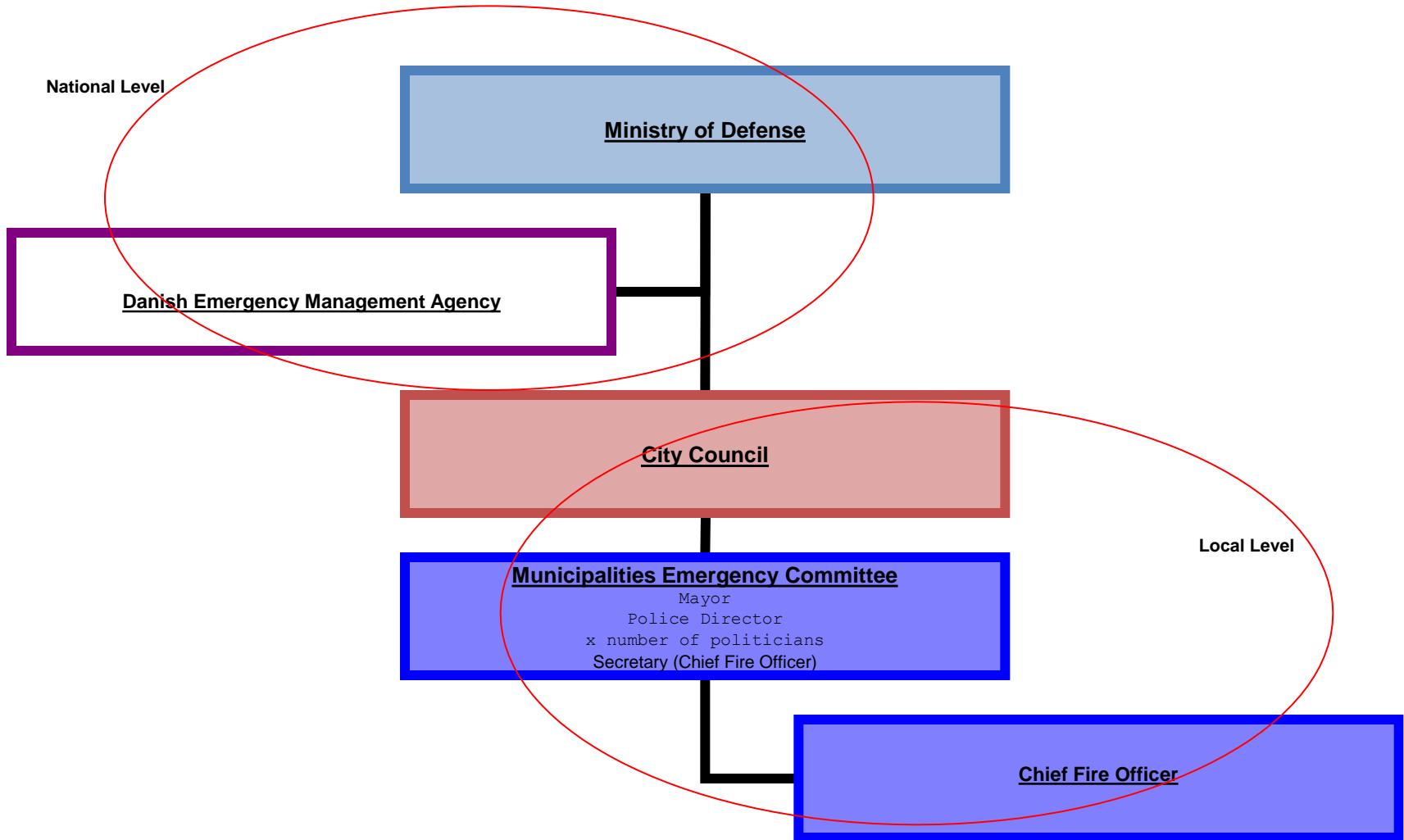
Frederikssund – Denmark



Frederikssund-Halsnæs Fire & Rescue



# Fire & Rescue Service political organization





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# Danish Preparedness



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- **Level 1 - The municipal Fire & Rescue Service**  
(332 places with full time, Part time and volunteers)
- **Level 2 - The government Fire and Rescue**  
(5 places with concripts)  
Danish Emergency Management Agency



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# Law - Emergency Law



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- **§ 1.**

**Fire & Rescue Service response task is to prevent, reduce and mitigate damage to persons, property and environment by accidents and disasters, including acts of war or imminent threat thereof.**



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# The Municipal Emergency



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The **municipal Fire & Rescue Service** must be able to provide in relation to **local risks** prevention, mitigation and remedial action against damage to persons, property and environment by accidents and disasters, including acts of war.

Fire & rescue Service must also be able to receive, accommodate and feed evacuees and others in distress.



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# Basis for preparedness



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The Fire & Rescue Service must identify and analyze local risks to be considered for the dimensioning of the emergency.

The Fire & Rescue Service (municipal) defines the level of the emergency preparedness based on the risk profile.

Municipal defines the emergency rescue organization, business, design and equipment based on risk profile and service levels.



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- **Each municipal must prepare a comprehensive plan for the municipality's total emergency – civil protection**



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# Denmark



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# Risk-based design

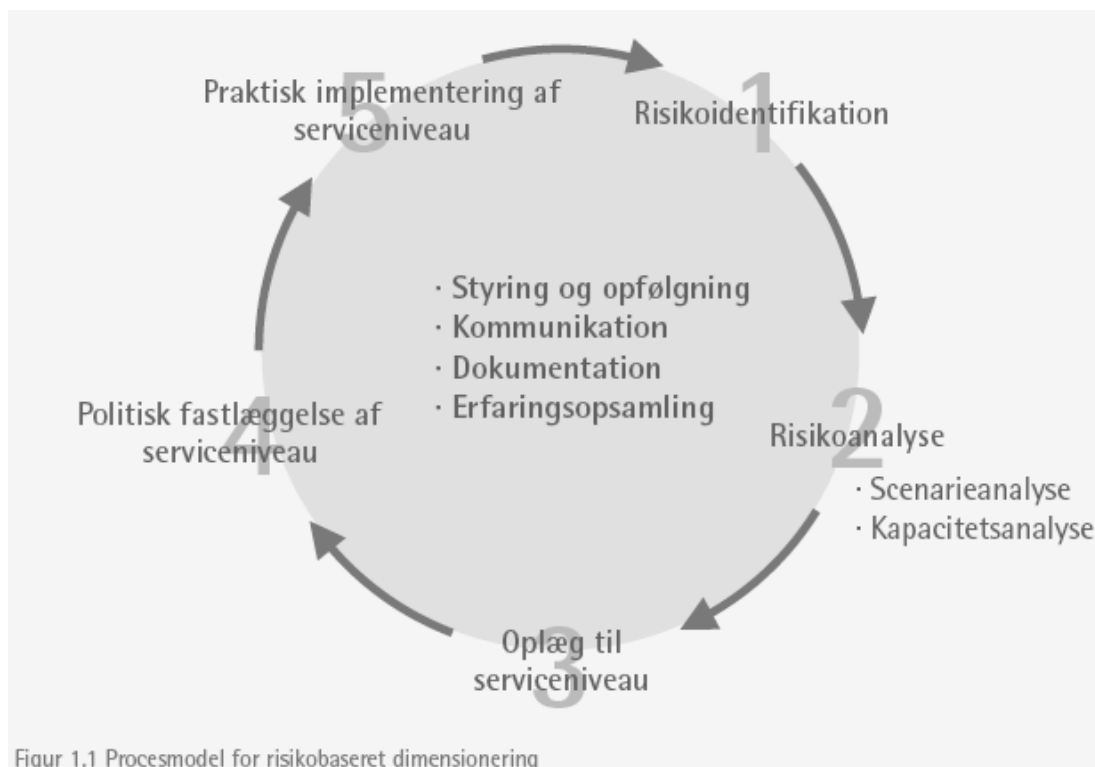


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## Procesmodel for risikobaseret dimensionering

risikobaseret dimensionering



Figur 1.1 Procesmodel for risikobaseret dimensionering



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## ***Risk Identification***

*Information collection, resource persons and brainstorming*





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# Information Gathering

- **To provide an overview of what information is relevant and how much information to be used**
- **To provide an overview of how the relevant information can be found**
- **Inspiration for the resource persons who can contribute to gathering information and must participate in the further work**
- **Structure the collection and handling of information**



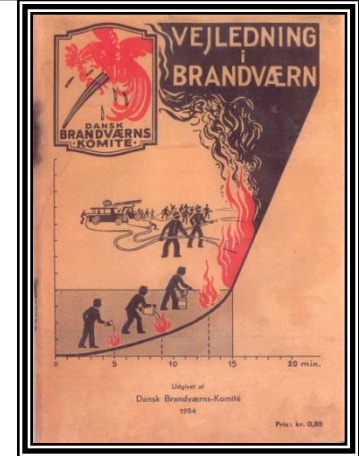
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# Inspirations



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- **Reaction Data**
- **BBR information**
- **Statistics in general**
- **Literature and reports**
- **Meteorological data**
- **Overview of electricity, gas, water and sewer**
- **Companies / fire inspection databases**
- **ODIN**
- **Consultations with experts**
- **Contingency**
- **Environmental information about sensitive areas and businesses**
- **City maps, maps of land use**
- **Municipality Maps**
- **Reconnaissance - a tour of the municipality**
- **Visits to specific companies**
- **The Internet, for example.**





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# Statistics



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- **Based on reaction reports**
- **Distribution of reaction types**
- **Distribution of years / weeks / days**
- **Reaction Types by day**
- **Development of number of call outs**
- **Personal life**
- **Fire Deaths**
- **Blind, false and real alarms**
- **ETC.**



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# Involvement of relevant resource persons



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# Involvement of relevant resource persons



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Relevant persons	Information partners can contribute
<b>Emergency People from own and neighboring municipalities (Falck)</b>	<b>Experience and preparedness technical knowledge of risks, emergency statistics, etc.</b>
<b>Technical management, environmental authorities and similar</b>	<b>Information on which companies in the municipality covered by the Environment Ministry's order approving the list of companies Planning Parameters for municipal water and heat supply, etc.</b>
<b>Police</b>	<b>Knowledge of risk concerning. terrorism, crime, etc.</b>
<b>Representatives from various objects such risk. Airport or hospital</b>	<b>Technical knowledge and experience in connection with these objects</b>

# Involvement of prevention

- **Prevention Activities can provide knowledge of:**
  - **The risks are in Municipality**
  - **What risks can arise when municipal planning and the world is changing**
  - **What types of incidents can happen**



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# Brainstorming



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## Inspiration List of events

- **Fire**
- **Explosions**
- **Collapse in / near buildings**
- **Collapse in nature (eg landslide v. cliffs)**
- **Significant weather events (drought, rain, heat, cold)**
- **Releases of hazardous substances (oil, chemicals, radioactive substances)**
- **Disruption of supply (water, gas, electricity)**
- **Traffic accidents (plane, train, ship, car expenses etc.)**
- **Drowning**
- **Crash of aircraft, helicopters, satellites, etc.**

# Identified risks in Frederikssund

## Identified risks



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# Reaction Statistics



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- **Overview of the accidents happening in Frederikssund Municipality**
- **Where accidents frequently occur and**
- **What extent have accidents when they occur**



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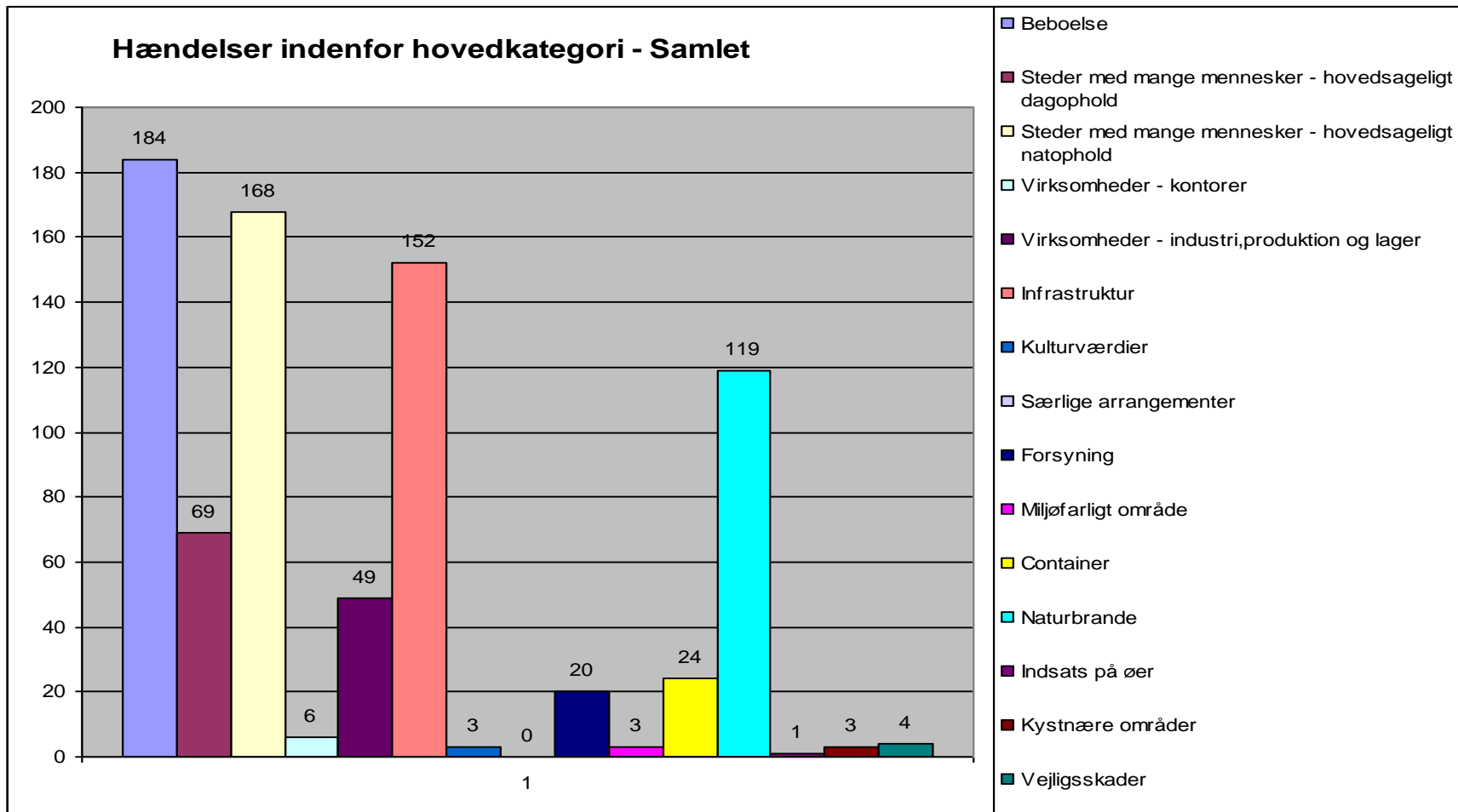


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# Events by main categories of risks



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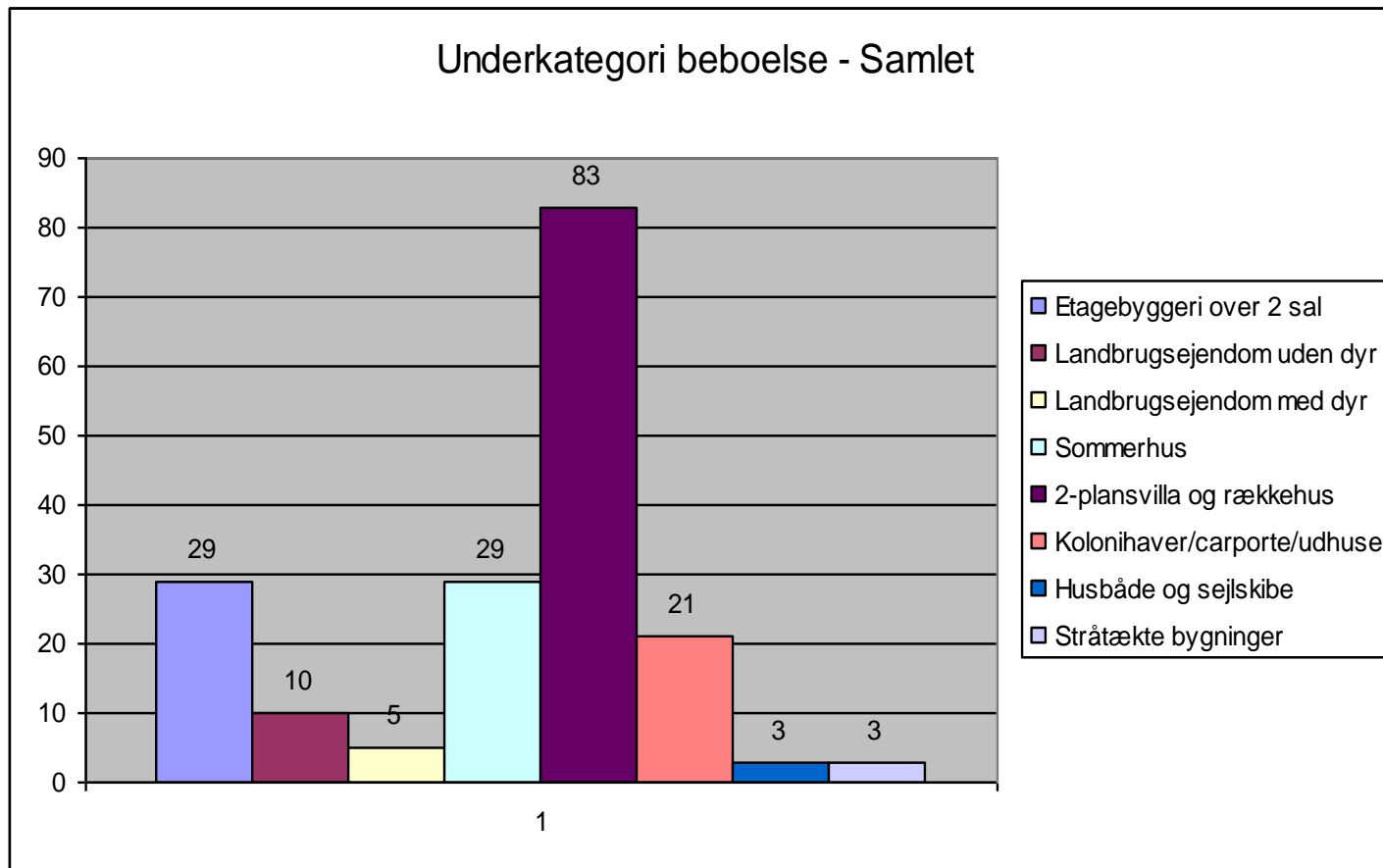


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# Incidents by Sub-categories residential



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# Statistics



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- Number of true alarms divided into categories of Real alarms at henh. month, day of week and time of day
- Real alarms by month
- Real alarms distributed on weekdays
- Real alarms by time of day
- Number of alarms by alarm / task types
- Number of alarms by henh. month, day of week and time of day
- Number of alarms within each alarm-/opgavetype by time of day with a 1-hour interval
- Fire Deaths recorded: Number, Risk Category and sub-group Time of day
- Injured measured: Number, risk category, class, time - day, month and time of day
- Number of alarms in: Christmas, New Year

[Udrykningsstatistik](#)

Reaction Statistics



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# Risk analysis



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- **Risk matrix**
- **Scenario Analysis**
- **Capacity analysis**



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# Risk matrix



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- **Defining risks likelihood and impact and overview of the risks using risk coma trice**

## Risk matrix – Etagebyggeri

(Floor Construction more than 2 storeys )

## Risk matrix – Car and bus traffic

# Scenario Analysis

- **Description of scenarios**

**Total 84 scenario descriptions i Frederikssund**

# Capacity analysis

- **Analysis of scenarios prevention and response capacity**

## Overtaken bus



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# A little movie to analyze from



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# Proposals and policy decision

- **Each municipality decides what level of preparedness they want, not only for the daily preparedness, but also for disasters and other major accident.**

**This information is shared with Danish Emergency Management Agency (DEMA), and DAMA have the full overview of the risks and scenarios in Denmark and the capacities available.**



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- **Approximately 76.000 inhabitants.**
- **Area 382 square kilometers**
- **130 km cost line**
- **6 fire stations with part-time firefighters**
- **2 fire stations with volunteers firefighters**
- **15 full-time employees**
- **100 part-time firefighters**
- **100 volunteer firefighters**



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## The operational preparedness.

- Fire & Rescue service etc.
- Unlocking Tasks to traffic accidents jammed with people.
- Rescue of people, animals and the values of damage locations
- Control of acute injuries of an environmental nature
- Water Rescue Service and waterdivers
- Etc

## The preventive are:

- Burning treatment of construction
- Fire inspections of approx. 1250 objects (schools, industry, nursing homes, etc.)
- Treatment of fireworks applications
- Prevention campaigns
- Control of the companies covered by the Seveso Directive, in cooperation with police, Labor and Environment.
- Evacuation Planning in cooperation with the police - the civil contingencies
- Civil emergency planning
- Planning of water supply for fire fighting etc.

## Other tasks

- Monitoring of municipal care alarms
- Monitoring of municipal anti-theft devices and technical alarms
- Monitoring of Automatic Fire Alarms
- Running for alarm systems
- Helping municipalities usually home by heavy lifting
- Organization of first aid courses
- Organization of courses in basic fire fighting
- Inspection of firefighting equipment in municipal institutions.
- Follow Injury Prevention
- First responder – First aid
- Accommodation and catering service



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<http://profilfilm2.nordad.dk/Vis.aspx?id=184>



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# Thank you for your attention!

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**Frederikssund-Halsnæs Fire & Rescue**

