



# INTERNATIONAL RESEARCH PROJECT INTO MUTUAL AID ORGANIZATIONS: 'VISIBILITY' INCREASES APPRECIATION

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For three years, Kappetijn Safety Specialists (KSS) has been conducting an international research project into Emergency Response Mutual Aid for JOIFF. How widespread are mutual aid organizations in the world? How are they organized? What are the experiences, in terms of governance, financing, operational effectiveness, and added value for the partners involved? Lessons and best practices from which the members of JOIFF can benefit. A glimpse of the findings of the research project: the appreciation from stakeholders for a mutual aid initiative increases the more the initiative offers secondary and facilitating services to the stakeholders involved. Also it appears that more specialization requires a larger scale.

KSS started in 2016 with the research project, for which JOIFF provided access to its worldwide network. Through various appeals the members were asked to lend their assistance. Additionally, several prominent mutual aid organizations were visited to get a closer look at their organizational structure and work methods. Some of the cases of the research project were the national SMC-network for tank firefighting in Sweden, BP in Geel (Belgium), Shell and Lyondell in Wesseling (Germany), Neste in Finland, the industrial area of Sohar in Oman, FER (the emergency response organization of the MOL refineries in Hungary), OMV Petrom in Romania, Wilton International in Teesside, and Essex Petroleum Mutual Aid (EPMA) in England.

**COLLABORATION IN INDUSTRIAL CLUSTERS**  
The initiative for an international comparative research project came from the developments in the field of

industrial emergency response in the Netherlands over the last few decades. Since the first public-private mutual aid emergency response team saw the light in the port and industrial area of Rotterdam in 1998, similar mutual aid firefighting organizations have been established in other industrial areas. Like the Amsterdam Mutual Aid System and Amsterdam Ymond Mutual Aid (AMAS-AYMA), the fire service in the Port of Moerdijk, the private fire service of Sitech for the industrial cluster Chemelot in Geleen, and, more recently, the Unified Industrial Fire and Rescue Service Amsterdam, which will become operational in the first quarter of 2020 in the Port of Amsterdam. A remarkable similarity between the Dutch initiatives is the acknowledgement of the parties involved that they are better able to provide a specialized industrial emergency response organization tailored to the risk profile of the area by combining their powers. In the Netherlands, a government party is often involved in the mutual aid initiative alongside the collaboration between the companies. In almost all cases it concerns clustered industrial zones, among which a few port areas, that have comparable safety and security issues. Think of issues concerning business continuity, a stable investment climate, the safety of the surrounding area, and the public health.

The Dutch examples concern port and industrial areas with strong interconnections of their corporate processes and logistical chains, where the companies and the government are already dependent upon each other (for example with issues concerning area management, infrastructure, traffic, and transport). By extending that collaboration into the themes of safety

and fire care an effective firefighting organization can be maintained for a lower cost that can focus on both public and industrial (often maritime) fire care. With better safeguards for preparedness, operational strength, and quality than if the companies settled in the area and the authorities were to invest in these issues separately.

The research project attempted to gain an insight into as many possible mutual aid initiatives across the world as possible, in order to better evaluate and evolve this type of collaboration. Which similarities and differences are there between countries, which types of mutual aid models can be distinguished, and which factors decide why a chosen collaborative model is or is not successful in a certain area? A part of the research project was conducted in collaboration with the Dutch Institute for Physical Safety, which was looking for the Dutch models and their underlying benchmark for its Transport & Energy Safety Lectorate. The results of the KSS research project will be presented in a whitepaper, which will soon be made available to the members of JOIFF.

**SEVEN INVESTIGATED THEMES**  
The research project, conducted across the period 2016-2019, covered seven themes. To start, factual information about the participating mutual aid organizations was inventoried, in order to compose a fact-file of every organization. Name and geographical location of the collaborative agreement, information about the size and nature of the site, the business activities, and the risk profile. After that, information was gathered on the partners involved, the size of the organization, the manner in which the mutual aid initiative is governed and supervised, and the





to look across their own boundaries do discover the added value of collaboration. A strong commitment from the boards of directors of all partners is indispensable for the mutual aid organization to succeed. The involvement of a partner with a neutral profile towards the mutual aid can help connect the other parties.

Parallel to the mutual aid research project for JOIFF, KSS performed a benchmark project in the spring of 2018 for the Port of Rotterdam, in which they compared the public private interpretation of the industrial emergency services of the Unified Fire and Rescue Service Rotterdam with Emergency Response Mutual Aid organization in other international port and industrial areas.

financial allocation at the foundation of the collaboration. The research project also looked at whether other tasks were executed aside from operational industrial fire care to the benefit of the partners, and whether there have been investments in a quality management system with norms and guidelines as a safeguard for the quality and continuity of its service provision.

Where the Netherlands seems to be unique is in the amount of integration of the collaboration. Multiple mutual aid organizations in the

Netherlands have a completely interwoven structure in terms of execution, supervision, financing, and governance. One theme here is never up for discussion: the operational lead during a deployment always lies with the safety authority and the mayor. Often, added value can be created when the reach of the mutual aid initiative isn't limited to the execution of emergency response, but other tasks and activities also fall under the collaborative agreement. The added value of a mutual aid organization

### RESULTS OF THE RESEARCH PROJECT

One remarkable observation is that the Netherlands has comparatively many instances of mutual aid organizations in which the government is more or less involved (public private partnerships). Outside of the Netherlands companies are more likely to uphold a collective emergency response organization among themselves, without the involvement of the government. In some cases, the law appears to put restrictions on collaboration between authorities and businesses. Moreover, a limited amount of trust between the government and the industry, as well as the local culture, can play a role in the possibilities and the goodwill of parties to enter into a collaboration.



At the request of the Port of Rotterdam, KSS compared the Rotterdam model with the working methods in the ports of Antwerp, Hamburg, Singapore, and Houston. The analysis showed some great variation in terms of organizational and financial models. In Houston, the participants in CIMA (Channel Industries Mutual Aid) individually keep up their own organization, including vehicles and materials. CIMA provides protocols and procedures for operational collaboration during large scale disasters and assistance with additional coordination capacities and overarching deployment of individual capacities.

In Antwerp, Seveso companies pay extra taxes with which the government can prepare itself for large-scale calamities with plans, extinguishing agents, and large-scale materials. And in Singapore, the government works with an instrument similar to the Dutch fire service assignment in order to place so-called CERT's (Company Emergency Response Teams) on locations with a special risk profile (among which industry). Companies are then still mandated to organize their own fire service capacity, which they in turn fulfil individually.

Another important finding is that there is no blueprint for organizing industrial fire care based on mutual aid. The possibilities and conditions for companies and authorities to work together are different everywhere you look. Apart from rules and regulations on a national level, issues like geographical location, infrastructure, and the availability of means and manpower decide the reach of a collaboration and which mutual aid model fits best to the risk profile and the safety requirements in the area. It is always a custom job!

increases as the organization becomes more 'visible' to the partners involved and offers them a peace of mind through other forms of service provision. Think of tasks like training and practicing with the internal emergency services of the participants, maintenance (checks) of fire water mains and fire safety systems, and (support in) drafting response plans and a company's emergency plans.

KSS provided support to the vision of safety of the Port of Rotterdam with this benchmark project. A bonus was a renewed motivation to start looking at other ports: RTFC/Corpus Christi, SMC/Sweden, and Amsterdam where a public private partnership will kick off in 2020. The leading argument for contributing to a collective emergency response organization by companies is that companies who participate in it can count on a higher level of safety, thanks to a trained, professional, and specialized firefighting organization that knows the company and its processes well, and regularly trains together with the corporate emergency service. Moreover, companies in Rotterdam that have been legally appointed to uphold a private fire service, can now get by with a less involved 'personal' fire service and can instead maintain a first response unit, because any other deployments will be performed by the mutual aid organization.

In all investigated cases, it seems most important that the partners have an aligned vision for safeguarding the safety in the area. Parties have to dare

Finally: size matters. The more a mutual aid organization performs tasks with a higher level of specialization, size starts to play an important role. For instance, investing in specialized materials and teams for hazardous incident control or facilities for large-scale and complex firefighting (e.g. tank and bund firefighting) requires the working area to be of such a size that those tasks can be executed in a cost effective manner, while maintaining quality and continuity.



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So fully integrated as the Port of Rotterdam is now organized is hardly the norm in other ports. The steps taken there have essentially resulted in eight fire stations with specialized materials and a highly trained and guaranteed occupation, instead of 50 if everyone would have organized their own emergency services. Other ports are keeping a keen eye on Rotterdam in that regard.

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