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E-HANDBOOK ON SOCIETAL SECURITY CRISES AND EMERGENCY RESPONSE IN EUROPE

Case-studies, videos and training materials

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PLEASE NOTE
For best viewing experience, according to your operation system and browser, we suggest to use Adobe Acrobat Reader (free) fullscreen.

In order to display the videos, within the document, an active internet connection is needed.

Foreword

In today's world where fear and insecurity are a part of our everyday reality, we increasingly rely on the work of first response professionals who risk their lives to make our private and public spheres safe and secure. Often such professionals are a quiet cohort of people, hidden from media, doing jobs that are of an utmost importance for our safety, well-being and survival.

Like in any other 'business as usual', first responders stick to their written and unwritten rules, follow models and protocols and, based on lessons learnt from countless events, develop their expertise to handle emergencies in more efficient ways.
The field of emergency relief requires constant evolution in line with changing society and threats, to produce both technological and non- technological solutions to multifaceted rescue and crisis management situations.

First responders' everyday business is impossible without collaboration and effective communication; therefore, they form a chain of professional actors, working together to successfully resolve crises.

The current e-handbook is a practical guide for the chain of first responders in crisis management in the area of societal security. It focuses on complex scenarios challenging human safety, public order and societal stability.

The e-handbook features six stories in the format of case-studies and videos from different parts of Europe, where strategies and actions of first response professionals during national emergencies are explored in an involving manner. All six case-studies are built upon the analysis of real events that occurred in the 2000s.

Purpose

The importance of providing training for first responders should not be underestimated. Most of the time, such training is based on very specific local missions. Learning from European colleagues is a unique opportunity for first responders to look over the borders and spot alternative ways to resolve crises.

The e-handbook is primarily designed as an educational package for first responders in Europe, namely: police, fire fighters, paramedics, civil society organisations and volunteers. It includes texts, videos and educational assignments. Its rich interactive content and unique electronic format will allow this target audience to learn from the experiences of first responders in situations, where fear, disruption and chaos threaten civilians and civil infrastructure.

The performance of actors involved at various stages of crisis relief is the focus of the studies. Accounts of collaboration among actors, the use of technical equipment and employment of electronic sources of communication add to a detailed overview of the respective events.

The e-handbook is designed to benefit first responders and practitioners, however, the content offers an arsenal of material that is also useful for educators, academics, researchers or any individual looking to enhance their knowledge of specific cases of societal security. The electronic design makes the content easily accessible and users with internet connection can read the text, play the embedded videos and complete the assignments.

The material from the e-handbook can also be used as a printed version.

This handbook is intentionally dynamic, yet easy-to-follow and grasp. The content provides general guidance and exposes the user to the questions that first responders face in their every-day work: Which tools to use and where; What protocols to apply; Whom to collaborate with; and, Which are the most effective technical solutions. However, the e-handbook should not be taken as an exhaustive guide nor as a definite checklist of required actions.

Inspired by real experiences, its purpose is to give food for thought on how we can all do better in crisis management.

Structure

The content of the e-book is divided into two parts. Part one features cases on the refugee crisis in Austria, riots in Sweden and terrorist attacks in Belgium. Part two covers storm and river floods in Spain as well as forest fires in Sweden.

All cases include first-hand video interviews with key professionals who were either present at the scenes or took on coordinating roles in the crisis management.

They share their experiences regarding successfully applied practices, challenges and difficulties during their missions, and lessons learnt in the aftermath of the emergencies.

Each case-study closes with a pedagogical section that includes assignments and educational scenarios on crisis management in particular settings.
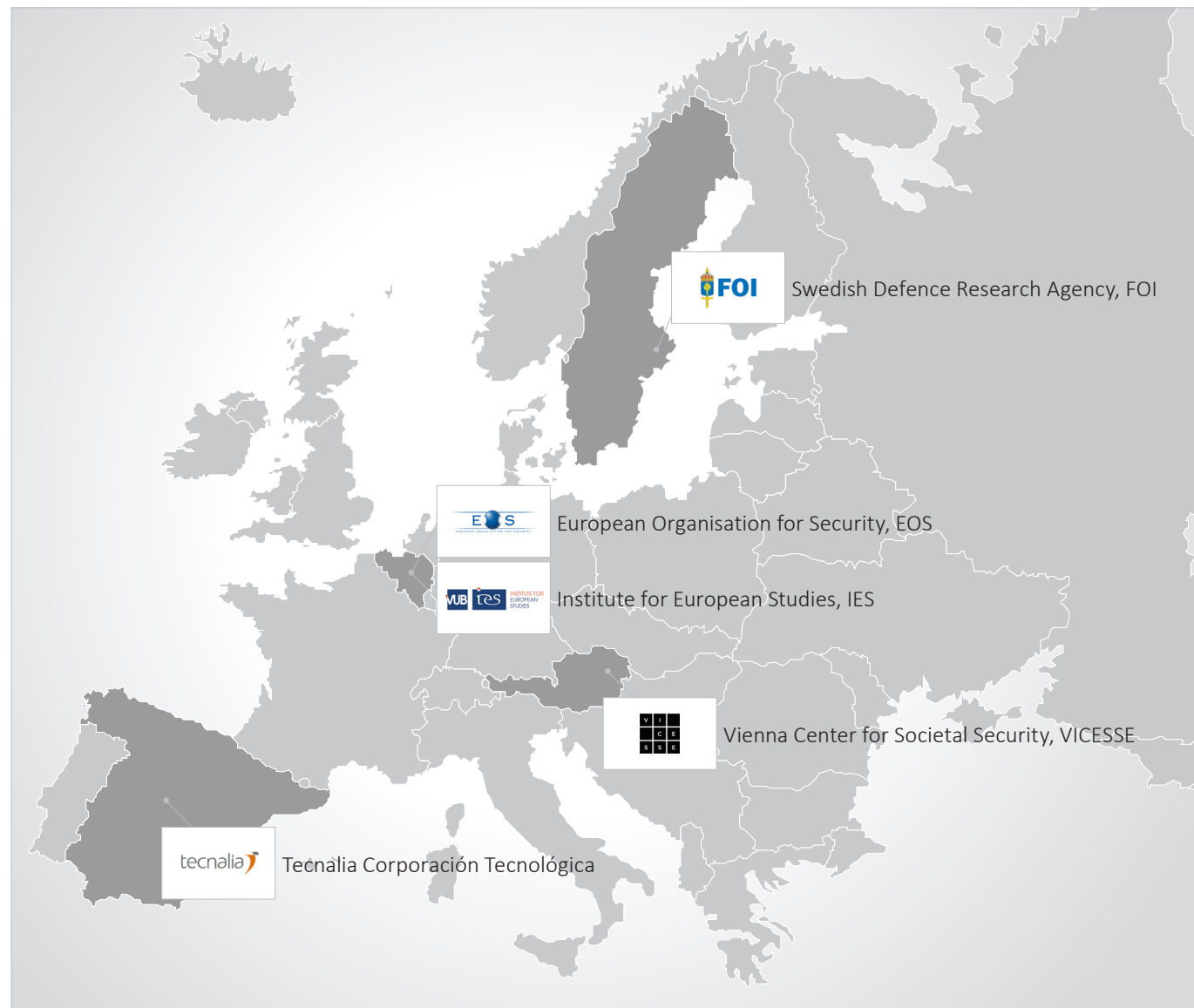
Acknowledgements

Refugee Crisis in Austria

Reinhard Kreissl, Norbert Leonhardmair, Michaela Scheriau (with contribution of Nina Woduschek)

1. Introduction

The Austrian case study will focus on local, national and regional responses to the migration and refugee crisis.

While increasing numbers of asylum applications have been observed in Austria as early as the first two quarters of 2015, the case study will focus mainly on the first weeks of September, after Austria had completely opened its borders to Hungary, enabling the majority of migrants and refugees to travel to Austria and further afield. We will draw on a wide array of available data, starting with media analysis, in order to reconstruct the events and establish a key time-line. Against this background, available documentation from the institutions involved in the management, external (academic) studies and interviews with key actors will allow for a fine-grained analysis.

Around key topics, the interviews have been assembled into short videos, which highlight contrasting perspectives on the crisis. While the focus is on the immediate response within the first weeks, the medium-term aftermath will be included where it is relevant to addressing the questions in the case study.

Video 1. **The concept "Refugee Crisis"**   CLICK IMAGE TO PLAY ▶

"Europe didn't learn its lessons as there is still no common European answer."
Gerry Foitik

A video interview with
Gerry Foitik, *Austrian Red Cross*
Heinz Patzelt, *Amnesty International Austria*
Karl-Heinz Grundböck, *Austrian Ministry of the Interior*
Wolfgang Urbanek, *Austrian Federal Railways*
Michael Schacherhofer, *Austrian Federal Railways*

URL: https://youtu.be/Yn7fYCsZ5HM

The year 2015 turned out to be a challenging one for Europe in general, and Austria in particular, as more and more people fleeing war and destruction in the Middle East sought refuge in European countries. But not only did the number of applications for asylum increase considerably in the second half of the year; the route to get to Europe changed too.

While the majority of refugees used to reach Europe via the Central Mediterranean route crossing to Italy or Malta, in 2015, the route known as the Western Balkan route became the major focus of the authorities. It led from Turkey to Greece, where the refugees would enter the European Union, and then into the Western Balkans, mainly Macedonia and Serbia.

Once in Serbia most of the refugees would make their way to Hungary, entering the European Union for a second time, crossing Austria to get to Germany eventually, the primary destination. For the first time since being part of the European Union (and after the Yugoslav wars) Austria was directly affected by a major influx of refugees coming to Europe.

Frequently the situation was framed as "refugee crisis" underlining the need for urgent and exceptional policy measures. When introducing the term "crisis" it is important to clearly make a distinction between two different, albeit closely-interrelated problems or crises. On the one hand, there is the humanitarian crisis unfolding in the war zone in the Middle East, triggering the movement of civilians who become refugees seeking for shelter outside their war-torn country.
On the other hand, there is the political crisis emerging in which Europe is being confronted with an unexpected large number of these refugees and in trying to find an adequate response, is transforming humanitarian misery abroad into a security threat at home.

Fig 1. **Asylum applications and refugees recognised in Austria 2006-15**

(Source: Statistik Austria)

Fig 2. **Western Balkan Route**

(Source: Europol)
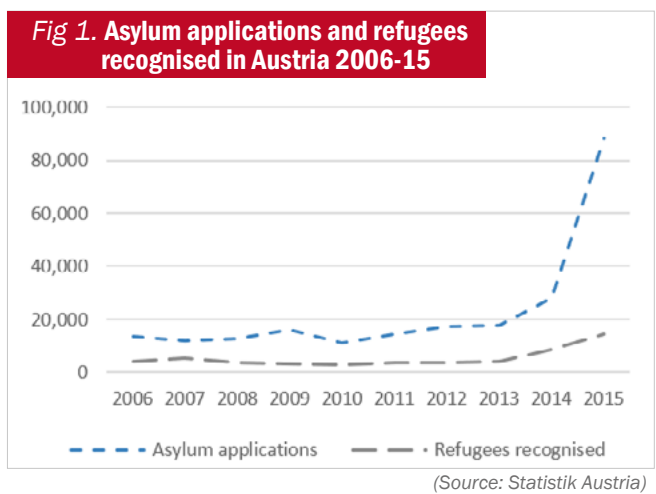
For most of the year, there was no real way for refugees to enter Austria legally, since the Dublin-III Regulation was in force, which declares the country of first entry into the European Union to be responsible for handling an asylum application. Nonetheless, refugees arrived. The high numbers and the collapse of reception facilities in Greece made returns there, so called "Dublin transfers", impossible. The facility in which most refugees were initially de-

tained was Austria's main refugee camp, Traiskirchen, which was built to accommodate 1,800 people. However, by the end of August 2015, 4,500 asylum seekers were living in the refugee camp, some of them in tents in front of the buildings, others without any proper shelter.

The situation at Traiskirchen dominated the national news and Amnesty International sent a research mission to the camp, criticising the living conditions.

Fig 3. **Tents in Traiskirchen**

(Source: Die Presse)

Fig 4. **Focal points of the crisis in Austria**

Train Stations
Refugee Camp
Border

(Source: VICESSE)

On Tuesday, the 25th of August 2015, the scale and dynamic of refugee movements to Austria changed drastically.

On that day, the German Federal Office for Migration and Refugees tweeted that they were suspending Dublin-III procedures for Syrian nationals. The decision represented an internal policy that was adopted for humanitarian reasons, not a legally binding decision.

Hundreds of people seeking refuge took trains to Austria and were able to continue their journey to Germany unimpeded.

The tweet went viral and on the 31st of August, Hungary ceased preventing refugees from boarding trains to Austria and Germany at the Keleti train station. Hundreds of people seeking refuge took trains to Austria and were able to continue their journey to Germany unimpeded. The asylum applications registered in September rose to 12,000 that month (and in October and November too). The exact numbers of people arriving and passing through in those first days are contested and reports vary, but several thousands per day were suggested. After massive criticism for not upholding the Dublin-III-Regulation by the Austrian government, Hungary closed the Keleti train station for refugees the following day and the train service to Austria was shut down altogether. But the people who were suddenly forbidden to continue their journey by train made a momentous decision on the 4th of September and started walking towards the Austrian-Hungarian border.

The German chancellor Angela Merkel and the Austrian chancellor Werner Faymann reacted with a preliminary de-facto suspension of the Dublin-III-Regulation. The only other way to stop the group of refugees would have been forceful border protection measures. The 4th of September was followed by eight days of open Austrian and German borders, the Dublin-III regulation was effectively put on hold, Austria and Germany cooperated to help the refugees to get to Germany.

Only a small number of people coming in wanted to stay in Austria. On the 13th of September, the open border policy came to a sudden end, when the German government announced enforcement of border controls and Austria followed suit a day later. Yet another day later, on the 15th of September, Hungary enforced stricter immigration laws, resulting in a sidetrack to the main Western Balkan route.

The new track led through Croatia and Slovenia. While the initial influx of refugees dropped significantly after the first few weeks, in March 2016, after a number of countries enforced stricter border controls, the Western Balkan route too was declared closed by the European Union.

The following chapters will mainly focus on the four weeks of September 2015, looking into the various actors dealing with the initial management of refugees coming into Austria (housing, transportation, etc.). This month is widely regarded as the phase during which the main influx of refugees occurred. While there are, of course, mid- and long-term consequences, the closing of the Western Balkan Route was officially regarded as the end of the immediate crisis.

2. Main Actors

2.1 Governmental Engagement

Several ministries and regional governments of affected states and cities in Austria were involved in multiple management decisions concerning the refugee crisis at federal and local level. The politics of Austria take place in the framework of a federal parliamentary representative democratic republic, with a Federal Chancellor as the head of government, and a Federal President as head of (one of the nine) states. Governments, both local and federal, exercise executive power.

At a local level, the cities/states of Vienna and Salzburg were closely involved in the management of the refugee crisis, because Vienna and Salzburg are the most important Austrian railroad traffic hubs between Austria and Germany. However, the federal states of Burgenland and Styria were affected too, since the border crossings most frequently used during the refugee crisis were in the towns of Nickelsdorf, Spielfeld and Bad Radkersburg. The regional administrations at state level were responsible for local logistics, the transport of refugees and the provision of adequate housing.

At a federal level, the Federal Ministry of Defence and Sports took over the transport management from the Austrian Federal Railways. Additionally, it made former military barracks available to house refugees and assisted the police at the Austrian border. The Federal Ministry of Health and Women's Affairs was responsible for public health issues, in particular the prevention of epidemics in the refugee camps. Also involved in the management of the refugee crisis was the Federal Ministry for Transport, Innovation and Technology, which was responsible for traffic issues and the Federal Ministry for Europe, Integration and Foreign Affairs,

which took care of international matters. Moreover, the Federal Ministry of the Interior played a decisive role in the management of the refugee crisis, acting as a host for the coordination of refugee relief measures by the ministeries involved, emergency services, transport companies and non-governmental organizations.

In addition, the federal government appointed Christian Konrad and Ferry Maier as "refugee coordinators" – a role that hadn't previously existed – to help facilitate the most pressing necessities (transportation, medical treatment, housing) for refugees at national and state levels. The appointment has been seen as indication of the difficulty of the bureaucracies to adapt to new demands. Organising housing facilities posed a particular challenge to the federal structure, as the competency remains largely at a state-level, with limited options for acting directly at a federal level. Discussions with state and local representatives often faced the "NIMBY" problem.

In their final evaluation of their role and the crisis in general, they voiced critique (among others) about

- private businesses contracted to organise housing for refugees, as they seemed unable and unwilling to adapt and expand their responsibilities to meet the increased demand.

- the inability of the "Siebenerlage" to actually take decisions and issue contracts for the resources necessary (unlike any head of a local fire department).

- bureaucratic inability and unwillingness to change the usual routine to address the necessary decisions and a notion of being afraid to deliver anything more than a neighbouring country because of resulting "pull factors".

- a number multi-agency problems of avoiding responsibility (blame game) instead of shared accountability paired with mistrust of NGOs and CSOs stepping up.

- inability of state actors to prepare for this situation, as there had been no timely warnings and prognoses available to them.

2.2 Emergency Services

The emergency services involved in the management of the refugee crisis were the police, whose staff members were responsible for security issues, border controls and the coordinated entry of the refugees, the fire departments and the emergency medical services, namely the Austrian Workers' Samaritan Federation and the Austrian Red Cross. While the Austrian Red Cross and the Austrian Workers' Samaritan Federation are both responsible for first aid and disaster management, which includes the organization of emergency accommodation, the provision with basic necessities and psychosocial work in crises, the Austrian Red Cross was also in charge of the accommodation management at federal level during the refugee crisis in the year of 2015.

2.3 Non-governmental Organizations

Many well established non-governmental organizations played their part in handling the refugee crisis: Caritas Austria, for example, managed support for refugees at the Westbahnhof train station in Vienna. However, Amnesty International Austria held a special position, because it provided an external review in respect of human rights standards of the work of the other actors.

Amnesty International's main goal is to fight abuses of human rights worldwide, and that includes the protection of refugees and asylum seekers.

Fig 5. **Amnesty International "#NoFence"**

(Source: Amnesty International Austria)

During the refugee crisis, Austria Amnesty International wasn't directly involved in the work with refugees, but chose to carry out a supervisory function instead. Additionally, Amnesty International Austria was among other organizations engaged in awareness-raising activities, targeting the public with information related to the refugee crisis. One campaign consisted of a no-fence-logo on a field close to the border crossing Spielberg, Styria, for everyone passing by to see.

2.4 Civil Society Engagement

But not only established organizations were involved in the management of the refugee crisis: Citizens helped individually at train stations and refugee camps, where they handed out water, food, clothing and even tents, and in a couple of days these activities produced coordinated routines of self-organized civil society engagement.

The spectrum of organized help ranged from collection and distribution of relief, involving established NGOs and individual projects. Self-designed T-Shirts and sweaters were sold and the money earned was for-warded to different refugee projects. But the most popular civil society engagement, which didn't exist prior to the crisis, was the so-called "Train of Hope", which got by far the most media coverage.

Train of Hope is an aid agency, which was situated at the Vienna Central Station to provide the arriving refugees with food, clothes, sanitary products, medical help and legal advice. The organization started their work on the 25th of August, 2015, and developed gradually from a group of volunteers organizing help for refugees by way of social media, to a registered non-profit charitable association.
Only volunteers worked at Train for Hope.

2.5 Transport Companies

Transportation was a key issue in managing the crisis since the majority of the refugees wanted to continue their journey to Germany. A number of private coach companies, and in particular the Austrian Federal Railways (ÖBB), arranged a variety of transport options to Germany and within Austria for refugees.

The Austrian Federal Railways as a public body were in charge of the transportation management during the first few weeks of the refugee crisis, until the Federal Ministry of Defence and Sports took over.

Fig 6. **Volunteers at Vienna Central Station**

(Source: Train of Hope)

> "We saw that a lot of the laws that make us a well administered country are not always applicable in crises under exceptional circumstances."
>
> *Gerry Foitik*

A video interview with
Gerry Foitik, *Austrian Red Cross*
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Michael Schacherhofer, *Austrian Federal Railways*

URL: https://youtu.be/b5bdc_1yJlQ

3. Management during the refugee crisis in 2015

3.1 Federal level

Structure

The crisis management at federal level is structured hierarchically. During the refugee crisis, an established task force was at the top of the hierarchy. Its members were the federal chancellor, the vice-chancellor, the foreign minister, the minister of the interior, the defence minister and the chancellery minister. Additionally, the coordination board, known as "Siebenerlage" (group of seven) convened. It consisted of members of ministries involved, emergency services, NGOs and transport companies. In contrast to the coordination board Siebenerlage the task force had actual decision making power; theoretically it was in a position to take decisions and enforce policies, discussed within the Siebenerlage, but in some cases no decisions were reached, leaving local actors no other choice but to act to the best of their knowledge without federal orders. The stakeholders involved describe acting upon an implicit agreement that questions concerning financial responsibilities would be postponed to a later date. Some of the questions haven't been resolved until well after the closing of the Western Balkan Route and have resulted in debates over federal vs. regional as well as ministerial budget responsibility.

Each involved ministry provided staff to sit on the coordination bodies, and the Federal Ministry of the Interior, "coordinated all measures that were connected to the rising asylum application numbers". The group included experts from all sections of the Federal Ministry of the Interior as well as members of the Federal Office of Asylum, the Federal Criminal Police Office and the Federal Office for the Protection of the Constitution and Counter-Terrorism. Even external departments were involved, like the Federal Armed Forces, the Ministry of Foreign Affairs, the Ministry of Finance and the emergency services.

Procedure for granting the right of asylum

If a person applies for asylum in Austria, the application will first be checked in respect to the Dublin-III Regulation. During this phase, the asylum seeker is staying at the main refugee camp in Traiskirchen, which falls under the jurisdiction of the federal government. Once the judicial responsibility for examining an asylum application is established, the applying person is moved to a refugee accommodation facility managed by one of the nine state governments. States are primarily in charge of providing permanent housing to asylum seekers waiting for a decision about their application. The federal government only is responsible for the accommodation in the initial period. Only in case of an acute housing shortage, people might have to stay in reception centres like Traiskirchen although legally they are managed under the regime of a state government.

3.2 Internal Management of the involved parties

Previously existing Organizations/infrastructure

All organizations involved in the management of the refugee crisis are structured hierarchically and have long established arrangements on how to handle such situations. Having predefined routines in place helps to act swiftly, because "under such circumstances people need to be able to react fast; there is no time for brain-storming or working teams".

In crises, such as the one described, special crisis teams are set up to manage the emergency situation. The members of these teams evaluate the crisis, prepare different courses of action and help with the coordination of the chosen option of action. Typically, a crisis team covers different tasks, such as communication, media, personnel, security and logistics. For each staff category information regarding the crisis is collected and used to prepare a presentation on the current situation. With the help of these status reports and the developed options of action the commander in chief should be able to make well-thought-out choices on how to manage a certain crisis situation. Big organizations have not only one but many crisis teams on federal and state levels.

These crisis teams are relied upon in situations during which organizations have "little information and high time pressure". To obtain more information on the crisis organizations invite members of other involved parties to join their crisis teams, attend cross-organizational crisis meetings and even send their staff to involved countries. The Austrian Federal Railways, for example, had a law enforcement officer seconded to their crisis team; he was their liaison person to the Federal Ministry of the Interior. Additionally, the Austrian Federal Railways sent members of their staff to Hungary to collect information on the situation at the Keleti train station in Budapest. The Austrian Red Cross sent Austrian liaison officers to Hungary and Slovenia and welcomed a German liaison officer to Austria to improve the flow of information.

In addition, some organizations have pre-built crisis units, which come into operation when needed. These units exist to be able to act within only a few hours of an emergency. Thus, the members of these units have years of practical experience and organise regular training exercises. The Austrian Red Cross has units on logistics and transport, catering, accommodations, psychosocial care and construction and operation of a medical post. Some of these units were sent to the Austrian-Hungarian border as soon as the emergency situation (especially in regard to housing, sumbsidience, and registration) was apparent and helped to build a system of arrival.

Austrian Red Cross

In the night of the 4th to the 5th of September, 2015, Gerry Foitik, the federal commander of the Austrian Red Cross attended the first coordination board meeting of many more to come throughout the refugee crisis. On his way to the meeting he informed his colleagues from the federal states of Vienna, Burgenland and Lower Austria to prepare pre- built red cross assistant units to be able to set up a functioning system of arrival at the Austrian-Hungarian border as soon as possible, as hundreds of refugees were en route from Budapest to Austria. "Because of the cooperation of the pre-built units on the one hand and the long-lasting partnership with the emergency and civil services on the other hand the Austrian Red Cross was able to take care of the arriving refugees from day one", says Gerry Foitik.

At the border crossing Nickelsdorf the Austrian Red Cross awaited the refugees with food, water, clothing and medical care. Also, the refugees were accommodated until buses or trains could take them to Vienna, where they continued their journey or were temporarily accommodated within Austria, when no public transport options were available right away.

At the border crossings, the Austrian Red Cross was involved in crowd management in order to prevent panics. The crowd management consisted of a guidance system and the dissemination of information, "because you would feel the same way, if you were waiting for a late flight without someone giving any reasons or alternatives. In such situations people tend to feel uneasy and so do people seeking refuge."

In addition to the first aid for refugees at the border crossings, the Austrian Red Cross was heavily involved in the accommodation management. It started off with the creation of accommodation, which the Austrian Red Cross considers one of its

primary duties in this type of emergencies. For example, if the Red Cross has to evacuate a village because of a nearing mudflow, it is responsible to find adequate accommodation for the people concerned until it is safe for them to return to their homes. The Austrian Red Cross clearly considered the refugee crisis to be another, even though quite unusual, emergency situation during which they had to accommodate people.

But in one of the coordination board meetings the federal government decided to not only trust the Austrian Red Cross with the creation of emergency accommodation for incoming refugees but with the whole accommodation management on federal level as well. From that day on the Austrian Red Cross worked hand in hand with the Austrian Federal Railways/Federal Armed Forces to coordinate the transport and accommodation management during the refugee crisis.

At first, the Red Cross employees only used Excel lists to coordinate the existing accommodations, but soon they noticed that a simple Electronic Data Processing (EDP) system would be able to improve and simplify their work tremendously. After the EDP system was set up so the accommodation providers could themselves enter data (expected and actual degree of capacity utilization) and allowed for a real-time assessment of capacity.

The Austrian Red Cross had guidelines at hand detailing how to act in these situations. These handbooks are written by Red Cross experts and provide instructions based on former experiences. For the refugee crisis, the Austrian Red Cross relied on their experiences from the 1990ties, when they took care of Albanian and Bosnian refugees.

The handbook answered questions like:
• How do you create accommodations for refugees?
• How do you evaluate the buildings?
• How do you correctly label facilities?

After the closing of the Western Balkan Route the Austrian Red Cross undertook evaluations of their work, both on federal and on state level.

Fig 7. Vienna Westbahnhof

(Source: Blaus Haus)

Austrian Federal Railways

Hundreds of refugees were entering Austria during the refugee crisis at the beginning of September 2015, when Hungary let refugees enter trains at the Keleti train station in Budapest. Suddenly the Austrian Federal Railways were confronted with crowded trains, stranded refugees at train stations and the possibility of people wandering on the tracks.
Very little information was available at that time, that is why Michael Schacherhofer, head of Corporate Digital Media, spent hours on Twitter to be able to gather important information for the convened crisis team. Questions he had to find answers for were how is the situation at the Keleti train station? Where exactly are the refugees? Did they already board trains? Are the trains already on their way to Austria? The situation became even more complicated when Hungarian authorities decided to close the Keleti train station for refugees and they suddenly started walking towards the Austrian-Hungarian border.

Hungary's decision to send buses to Austria had the dual effect of reducing the time the refugees needed to arrive at Austria considerably while increasing the number of arriving refugees at the same time.

The Austrian Federal Railways' first contact was Caritas Austria, who helped to establish procedures of processing arrival and organise further transport from Vienna Westbahnhof train station. The Federal Railways cleared storage spaces to store donations from citizens and NGOs, provided resources and contributed their expertise in crisis management to the organizational team at Westbahnhof. However, management at ground level was undertaken by other parties, namely Caritas Austria and the Austrian Red Cross. The same task sharing took place at Vienna's central station: The Federal Railways provided space and shelter for the incoming refugees, while Train of Hope (CSO, see below) was involved in the day to day care of the refugees.

While the Austrian Federal Railways arranged numerous special trains during the refugee crisis they were also responsible to maintain the normal operating of the railway system and the train stations, which was not an easy task: At one point, the persons in charge nearly had to evacuate the train station Westbahnhof: 4.500 people were at the station, there was no way to get to the platforms and more people were still arriving. To calm the situation the Austrian Federal Railways stopped the train service from Hungary to Austria and organized buses, that were parked outside of Westbahnhof for people to wait in. That way the number of people at the train station could be reduced.

During the first few weeks of the refugee crisis the Austrian Federal Railways were also responsible for the transport management on federal level; they organized transport options for refugees in consultation with the Austrian Red Cross.

(Source: Train of Hope)

When the Federal Armed Forces took over that responsibility the Austrian Federal Railways provided room in their headquarters for the Army experts to set up a crisis coordination centre so they could easily coordinate the transport management of the refugees with the normal railway operation.

The crisis management is being evaluated at least twice a year. The findings are included in a new edition of the crisis management handbook on which the Federal Railways rely in emergency situations.

Newly formed Organizations

In the middle of the challenges of the first few weeks of the refugee crisis civil society engagement gained momentum. People saw that despite the effort of Austria's established NGOs and emergency services, there were still gaps in aid provided to the refugees. As a result, a number of individuals and initiatives stepped up and tried to fill these gaps.

These activities started off as unorganized or loosely organized civil society engagement, but as they grew in size they developed gradually a more structured approach. At first there was no proper division of labour or central coordination in these groups; everyone did everything. But as these newly formed networks grew, their work got more versatile and complex too. Suddenly it wasn't possible anymore to be involved in every aspect of the groups work, experts took over the coordination and a system of task sharing developed.

Also, these civil society groups started off with a flat or even no hierarchy at all; every member was equally involved in the decision-making processes. But again, these organizations grew at a very fast rate and experts, who had a much better understanding of the problems replaced lay actors who just joined as volunteers. Naturally, those who were part of the group from the beginning and had spent lots of time took leadership positions in the emerging organisational structures. So, while these groups still had a low-threshold access and certain tasks that could be carried out by new members, certain hierarchical structures did evolve.

These newly evolved hierarchical structures required the establishment of a duty-roster to be able to guarantee that individuals with oversight of the different working areas and decision making power were always present. Members without leadership positions always came and went whenever they wanted since the work in these civil society engagement groups was voluntary.

These changes, especially the development of a hierarchy, didn't only take place to keep up the successful work in the refugee relief within a growing group but also to be able to work together with hierarchically structured organizations. The larger and more accepted these civil society organizations became, the more they were involved in cross-organizational management and cooperation and hierarchically structured organizations needed permanent contact persons able to make decisions without having to ask the whole team.

Train of Hope

A group of people that later called themselves Train of Hope, started their work in refugee relief on the 25th of August, 2015. Realising that refugees were not only arriving at Westbahnhof train station but also at Vienna's central station, they bought some water, set up a table at the station and started to hand out the bottles to refugees. The same evening, they created Facebook and Twitter accounts to solicit donations of food and clothes and to attract additional volunteers willing to help.

At the beginning, Train of Hope set up at Vienna's central station without the permission of the Austrian Federal Railways, but later on they were provided a whole hall to work in as the train station wasn't in all-out operation yet. "It is clear, on the other hand, that if we hadn't been here, the Austrian Federal Railways would have had different problems to solve. Somehow it was a mutual giving and taking", said one member of the managing board of Train of Hope.

During the first few weeks the volunteers working at Train of Hope would in a very improvised set up hurry to the platforms as soon as they were informed that there were refugees in an arriving train. There they would inform the refugees about the different kinds of help they were offering down in hall 2, like medical care, legal advice, a kid's corner and a missing persons desk. Later on, they began working with different refugees on radio stations and Facebook pages and the word spread about the work Train of Hope was doing in Vienna. National and international newspapers and TV stations were picking up the story about Train of Hope as well as the organization grew and suddenly refugees knew exactly where and what they could find at Vienna's central station.

Soon Train of Hope was growing at a rapid pace: Thousands of people volunteered at the train

Fig 9. **Train of Hope**

(Source: Train of Hope)

station or donated food and clothes and the number of tents in front of hall 2, where they stored, sorted and organized the donations, expanded. The property in front of the train station is owned by municipal authorities, but they were informed about Train of Hopes work and did not only tolerate them but provided portable toilets.

Other organizations helped too, like Vienna's fire department for example, supported the volunteers at Vienna's central station with certain equipment. But Train of Hope probably had the closest cooperation with the Austrian Workers' Samaritan Federation, an organization they could "fall back to."

Train of Hope's work wasn't exactly evaluated, but the volunteers who were involved the most were offered supervision and medical checks. In meetings of the supervision group, the volunteers in leadership positions could talk about difficulties they had within the team or the work they were doing and got help in processing tough experiences. In December of 2015 Train of Hope left Vienna's central station, as it was almost impossible to keep working in the initial set up due to weather conditions and most importantly as less and less refugees were arriving at Vienna. But Train of Hope still exists, it is now a registered association with the aim to establish and support integration projects.

Supervisory function

Amnesty International Austria

Most parties involved in the management of the refugee crisis evaluated their work internally after the closing of the Western Balkan Route, which is considered the end of the immediate crisis. However, Amnesty International held a special position. It was not involved in the day to day care of the refugees, instead it evaluated the work of the involved organizations during the crisis.

For example, Amnesty International criticized the "complete lack of a political organized governmental management of the refugee crisis: Not even the decision where the first buses should head to, namely to Passau, Salzburg or to the Austrian-German border, was made by the responsible governmental institution, but rather by officers of the Austrian Red Cross and the Federal Armed Forces who were on duty at the border crossing. There is a story in circulation that says that multiple calls were made to ministries, but they were only referred to different departments and never got an answer."

But because of their limited resources, Heinz Patzelt, Secretary General of Amnesty International, described the first responders as "committed, but in part completely overburdened."

A broad network consisting of care workers, voluntary members and journalists, informs Amnesty International of possible human right abuses. Amnesty International then does their own research and if the head office in London agrees, it sends out an official research mission, like the one examining the refugee camp in Traiskirchen. A standardised guideline exists for these research missions, in order to guarantee the best possible documentation of the relevant situation. After conducting the research and checking back with the head office in London a report is published to put pressure on the responsible parties and evoke change. In the case of Traiskirchen the report was given to the Federal Ministry of the Interior and was made publicly available on the Amnesty International Austria homepage. If necessary, Amnesty International Austria also conducts follow-up research missions.

"We met very dedicated
but overstrained first aiders,
in the civil society sector too.
They were committed, but the
available resources didn't match
the situation."

Heinz Patzelt

A video interview with
Gerry Foitik, *Austrian Red Cross*
Heinz Patzelt, *Amnesty International Austria*
Karl-Heinz Grundböck, *Austrian Ministry of the Interior*
Wolfgang Urbanek, *Austrian Federal Railways*
Michael Schacherhofer, *Austrian Federal Railways*

URL: https://youtu.be/U4JJrtByEHg

HEINZ PATZELT
AMNESTY INTERNATIONAL AUSTRIA

4. Cross-organizational Management

4.1 Siebenerlage (federal coordination board)

The Siebenerlage is a coordination board at federal level. Its composition may vary depending on nature of the emergency situation. During the refugee crisis, the coordination board started off with three members, but over the following days more and more ministries and organizations were invited to join. In the end it consisted of staff members of various ministries (Federal Ministry of the Interior, Federal Ministry of Defence and Sports, Federal Ministry for Europe, Integration and Foreign Affairs, Federal Ministry for Transport, Innovation

and Technology, Federal Ministry of Health and Women's Affairs), the Federal Chancellery of the Republic of Austria, the city of Vienna, the emergency services (Austrian Red Cross, Austrian Workers' Samaritan Federation, Austrian Federal Fire Brigade Association), non-governmental organizations (Caritas Austria, Diakonie Austria) and transport companies (Austrian Federal Railways, private coach company Dr. Richard).
The only ministry which was asked to join, but didn't, was the Ministry of Finance. Twice it received a written invitation, but never replied.

At state level, the affected federal states were instantly invited to join the board via video conference, but only after some weeks did the members of the Siebenerlage decide that all federal states should have virtual access to the board meetings.

In the first few weeks, the members of the coordination board met three times a day in the Federal Ministry of the Interior. But once they had taken their decisions on the immediate emergency measures the meetings became less frequent. The board was chaired by the Director General for Public Safety, but there was no hierarchical order in place. Nevertheless, decisions were made concerning the arrival of the refugees at the Austrian border and the organisation of transport and accommodations for the refugees on their way to Germany.
Although decisions were reached conjointly, the implementation of the decisions was not mandatory, since the coordination board is considered solely a mechanism for the optimization of the exchange of information and the coordination of the tasks of the actors involved. It was not meant to have unilateral decision-making power, although actors in charge

Fig 10. **Border crossing Nickelsdorf**

(Source: Red Cross)

of regional management took executive decisions within their respective domains due to a lack of federal executive management.

4.2 Crowd management at the border

A number of border crossings were affected by the refugee crisis; not all of them were considered to be equally successfully managed. In Nickelsdorf the police, the Federal Armed Forces, the emergency services and non-governmental organizations involved worked together to establish a crowd management system at the border crossing. The refugee crisis required the establishment of various stations at the borders to guarantee that every refuge-seeking person got what he or she needed, ranging from medical care, food and water to clothing. To actively steer the people past every station crowd control barriers were used. To avoid panics the people involved in crowd management tried to keep every person informed of what was happening. Every delay, every change of plans was supposed to be announced so the refugees knew how and when their journey would continue.

The border crossing Nickelsdorf had many advantages over other border crossings. Its spatial conditions, for example, were ideal. The people working at the border crossing were allowed to use the veterinary medical centre, which offered enough room for the waiting refugees. Also, a waiting area for the buses was available. In addition, the parties involved in the crowd management at Nickelsdorf had a long history of working together and therefore had no problem being part of the management team once again. The parties involved had previously worked together to manage the music festival "Nova Rock" and they had continuously cooperated during an assistance deployment of the Federal Armed Forces on the Austrian-Hungarian border that lasted for a period of twenty years.

Other border crossings affected were less fortunate, and therefore less successful in their crowd management. The border crossing Spielfeld, for example, wasn't blessed with a similar infrastructure and had to deal with cramped site conditions. Also,

there were other conditions that caused problems: the temperatures were already dropping since it was later in the year when Spielfeld was affected by entering refugees, and Germany had already implemented more restrictive entry policies so the only transport option that was available to Spielfeld was buses.

The success of the crowd management at the border was mainly dependent on the available infrastructure and external conditions, as well as the time it took for the parties involved to establish a smooth cooperation. The crowd management at Nickelsdorf was widely seen as a success.

4.3 Cooperation at train stations and refugee camps

Cross-organizational cooperation could be seen at various train stations and refugee camps during the refugee crisis. As mentioned above, Austrian Federal Railways, Caritas Austria and the Austrian Red Cross worked together at Vienna Westbahnhof train station; Austrian Federal Railways and Train of

Hope also cooperated at Vienna's central station. But although these were the main actors at train stations, the connections between the parties were even more intertwined. Train of Hope, for example, called in Caritas Austria whenever homeless people showed up at the central train station, and relied on their volunteers to take care of them. The organizational team at Westbahnhof train station and refugee camps, on the other hand, received surplus donations from Train of Hope if they could use it.

It was easiest for the parties to work together if they had similar organizational structures. At first the Austrian Federal Railways, for example, struggled with the non-existence of leadership positions at Train of Hope. They had no way of knowing who to talk to if they had any questions or requests since there was no one in charge. A member of Train of Hope confirmed that "hierarchically structured organizations often had problems with Train of Hope, because in their eyes they were chaotic." But Train of Hope adapted over the following weeks and established management positions and contact persons. Similar to the Austrian Federal Railway and Train of Hope most of the parties involved confirmed that the members of the organizational teams worked well together after an adaptation phase.

Every party stuck to its area of expertise in handling the situation, but at one point the Austrian Federal Railway did ask Caritas Austria and Train of Hope to communicate certain information both to the arriving refugees and the general public, because they felt that organizations heavily involved in the refugee relief and with no personal agenda would be more believable.

5. Lessons learnt

5.1 Federal Level

Procedure for granting right of asylum

During the procedure for granting the right of asylum, the Austrian accommodation system was modified to prevent homelessness in the refugee camp Traiskirchen in the future. The new law became effective on October 1st, 2015 with a sunset-clause set at the end of 2018. The federal government is now entitled to open accommodation facilities for asylum seekers regionally, if the states don't reach their quota of refugees to be housed in their jurisdiction. This is intended to prevent a tailback at Traiskirchen, caused by a lack of state housing. In addition, the refugee camp at Traiskirchen is no longer the only initial reception institution; seven distribution centers were established to reduce the amount of people who have to be taken care of at Traiskirchen.

"Siebenerlage" (coordination board)

The so-called Siebenerlage is a coordination board and not a decision-making body. While the exchange of in-formation at the board meetings was described as immensely helpful and the coordination of the tasks of the various parties involved was without a doubt very important, there were limits to the functions the Siebenerlage could fulfil. For example, the members were in no way able to decide who should pay for the costs incurred. The body responsible for making such a decision, namely the task force, didn't. As a result, a number of members suggested a possible extension of the board's competence to achieve decision-making authority, but no decision has been made as yet.
Another unsolved problem concerning the Siebenerlage is the question of external communication. Every participating organization had a press depart-ment, that dealt with communicating the organization's decisions and 'successes' to the general public. But the collective "Siebenerlage" had no such department, therefore it was highly under-represented in the national media and barely known to the general public. The question that still must be answered is "Should there be a collective communication strategy in the future?".

Registration at the border

The refugees who crossed the border during these eight days of open borders were not checked in any way or even registered. Because of this lack of border control, many people in Austria felt unsafe and the overall sentiment changed from welcoming to a more critical attitude. A proper registration system at the borders could have prevented the Austrian population from feeling unsafe in their own country, which is why registrars were established at the border in the East and South of Austria.

Preparation for a future crisis

The federal government, as a whole, was in no way prepared for the challenges of a refugee crisis: not for the sheer numbers of asylum seekers needing housing, as described above, and not for transit refugees, who had a completely different set of needs, because they required transport to Germany and extra accommodation along the way.
These structures were not existent and therefore had to be established first to manage the crisis, which took some time. But in order to be better prepared for a possible future refugee crisis the federal government didn't withdraw these structures after the European Union declared the Western Balkan route closed, but rather maintained them instead.
As a response, there are now emergency accommodations available throughout Austria, that can be opened at short notice anytime.

5.2. Organizational Level

Communication

Communication proved to be a crucial issue during the refugee crisis, on various levels. While the internal communication at national level can be considered a success due to the existence of the coordination board Siebenerlage, communication at the international level was more challenging. A coordinated exchange of information with Hungary, for example, was barely existent.

Because of the lack of information, the parties involved needed to respond independently to be able to do their work properly: the Austrian Red Cross had liaison officers in the Hungarian and Slovenian Red Cross head offices to get information and the Austrian Federal Rail-ways sent staff to the Keleti train station in Budapest, Hungary, to evaluate the situation.

But even within Austria, a few communications difficulties were apparent. First, some cross-organizational communication issues existed. Civil society organizations of varying sizes were either not structured hierarchically from the start or had no hierarchy at all. This made it difficult for other organizations to find a contact person they could depend on to be to able to speak for the whole team, to streamline and prioritise the tasks at hand.

An example mentioned, that falls into this category, is the problem the Austrian Federal Railways had with Train of Hope throughout the first few weeks of the crisis, during which no leadership positions existed.

But wherever successful communication practices already existed or were established during the refugee crisis, the parties were eager to keep in contact even after the end of this particular emergency situation, to simplify communication matters the next time.

Second, some organizations had problems communicating with the general public. The Austrian Federal Rail-ways, for example, had to learn that it wasn't enough to communicate the solution to a problem; the general public has to be notified about the problem itself, too. This problem occurred when the Austrian Federal Rail-ways had to stop the train service form Hungary to Austria, because the Westbahnhof train station was dangerously overcrowded.

Instead of communicating both the problem and the solution, the Austrian Federal Railways only released their decision to stop the train service to the press believing the problem of the overcrowded train station was apparent. But many people who didn't know about the situation at Westbahnhof thought the Austrian Federal Railways had suddenly stopped wanting to help the refugees reaching Austria. Resources then had to be used to explain the misunderstanding.

Social Media

Social Media was an important tool during the refugee crisis. All parties involved used it to some extent, although it was most important to the organizations that depended on donations and volunteers.

But the widespread use of social media caused problems too. This became apparent, when both Train of Hope and the Austrian Federal Railways decided to move a welcome desk to a better accessible spot. Someone saw employees of the Austrian Federal Railways handling the desk; took a photo and posted it online. Within hours a rumour emerged that said the Austrian Federal Railways were getting rid of the welcome desk, because they did not want any refugees at their train stations. After this incident, the Austrian Federal Railways started to communicate their plans online before they were executed. That way the emergence of rumours and misinformation was managed.

Even in controlling the flow of information in respect of items needed, social media services produced confusions: the decentralised stream of tweets and retweets of hours-old information was hard to control and impossible to correct in time, causing outdated information to continue in the feed. This caused confusion and over and underflow of requested goods being delivered. The strategy was therefore changed to only tweeting or retweeting a link to an up-to-date centralised database, providing a list of goods and services currently in demand.

Process from volunteers to full-time employees

Volunteers are ideal for fast reaction in an emergency situation, but most of the time volunteers will not be able and willing to spend all of their free time working for a non-governmental organization or an emergency service, even under exceptional circumstances, for a longer period. This high fluctuation makes planning difficult.

To avoid being short-handed on volunteers, it is advisable to employ new full-time personnel to compensate for the inevitable loss of volunteers, as the Austrian Red Cross did during the refugee crisis. Otherwise an organization will be short on staff, as happened to Train of Hope when the universities started again in October and suddenly lots of people couldn't spare as much time as they had done during the summer.

1. Define/Discuss the following terms:

- Migrant
- Refugee
- Crisis
- Siebenerlage
- Role of Social Media

2. Educational Scenarios:

A. Imagine you are a Crisis Coordinator tasked by the government to manage the arrival of refugees at a railway station. In addition to official emergency services, you are confronted with a number of small NGOs as well as individual volunteers on site, who have come to help. They have brought a variety of items such as clothes, food and water, and have started setting up improvised distribution facilities autonomously.

Task. Draft a 1-page plan of actions (in a format of a leaflet/checklist) for volunteers, explaining the steps involved in building up a coordination system with official services. The system should be based on mutual communication, collaboration and efficiency. Keep in mind that the purpose of the leaflet is to engage and encourage the volunteer.

B. You are part of the local management staff of the railway company. After a week of daily arrivals of refugees at a train station in city X, you want to keep track of problems/challenges/mismanagement in order to adapt your guidelines for similar scenarios in the future.

Task. Set up a strategy for gathering specific information that you could use for debriefing your staff. Describe the 5 most relevant issues based on their importance.

Interviews:

- Karl-Heinz Grundböck, Spokesman of the Ministry of the Interior, 09/11/16.
- Gerry Foitik, Austrian Red Cross, Member of the Management Board, responsible for Catastrophe Man-agement, 21/11/16.
- Heinz Patzelt, General Secretary of Amnesty International Aus-tria, 22/11/16.
- Wolfgang Urbanek, Austrian Federal Railways, Company Coordi-nator for Security and Michael Schacherhofer, Austrian Federal Railways, Head of Corporate Online and Social Media, 16/12/16.

Videos:

- On the concept "refugee crisis" (6:15)
- On crisis management in general (5:48)
- On the management on federal level (7:03)

Media analysis:

- Austrian newspapers, from June 1, 2015 to September 30, 2015 (16pp document; German; conducted by VICESSE), searched by keywords.

Overview news articles:

- Die Zeit (2016) Was geschah wirklich? Published on 22. August 2016 [Online]
- Die Presse (2016) Die Flüchtlingskrise – Eine Zerreissprobe für Europa. [Online]

Annual Reports of federal organisations:

- Amnesty International: Research Mission Report
- Austrian Federal Railways
- Bundeskanzleramt
- Austrian Ministry of the Interior
- Austrian Ministry of the Interior
- Austrian Red Cross
- Austrian Workers Samaritan Federation
- Caritas Austria
- Diakonie Austria

Studies:

- Wolfgang Gratz (2016) Das Management der Flüchtlingskrise, Wien: Neuer Wissenschaftlicher Verlag.
- SOURCE Project (2016) Annual Societal Security Report 3. EU FP7 SOURCE Project (313288): Deliver-able 3.6.
- Maier, Ferry/Ortner, Julia (2017): Willkommen in Österreich? Was wir für Flüchtlinge leisten können und wo Österreich versagt hat, Innsbruck/Wien: Tyrolia.

Husby Riots in 2013

Ann-Sofie Stenérus Dover & Malin Östensson

1. Introduction

The riots in Husby started on 19 May 2013 and continued for four nights. During this time, 700 incidents were reported, most of which were cars set on fire and other forms of vandalism. It is generally believed that the riots may have started as a protest against the fatal police shooting of a Husby resident, but that the underlying cause was social segregation.[1]

The event was labelled social unrest, a term that has been used in Sweden for a decade or so, in relation to violent disturbances. However, the riots that started in Husby lasted longer, and spread to other places, both in Stockholm and elsewhere in Sweden, making it a national concern. The events thereby caused political debate at national level, and were also widely reported in media, both Swedish and international.

The root causes of social unrest, such as social inequality, segregation, and unemployment, should be tackled on a deeper level. A recent initiative was Political Week, held in Järva, 10-17 June 2017, for the purpose of reducing the distance between politicians and residents, creating better conditions for residents to engage in politics, and putting the questions of local residents on the political agenda. However, when social unrest is manifested in riots, first responders unavoidably become involved. Riots can be distinguished from many other types of crises, in the sense that the crisis revolves around clashes between groups with different social identities and frames for interpretation of occurring phenomena.[2] Media also have a strong impact on how this type of situation is perceived by the public, with strong links to factors like social inequality, segregation, and alienation.

The nature of the crisis therefore implies that instead of one objective, unambiguous description of the course of events, there are many perceptions of what happened, which provides additional parts to the overall picture.

This report describes the event, mainly from the crisis management perspective. The study is based on material publicly available on the Internet, from research reports to newspaper articles, and on interviews with actors that participated in the crisis management.[3] However, no public record has been found describing the police nor the fire-fighting operations as a whole. Instead, the operations are described from individual standpoints. Unless otherwise stated, the information provided in this report is gathered from the interviews performed in this study.

Following this introduction and background, the Husby riots and the successive debate are described in the second chapter. In Chapter 3, the main actors are presented, with their general assignments and specific roles during the riots. The fourth chapter then describes the actual crisis management. Chapter 5 presents some of the challenges and lessons learned. The report concludes with a summary and some key messages, in Chapter 6.

Background

Riots have occurred in Sweden also historically. Many of this study's sources, both in writing and in interviews, state that talking about the riots in Husby as an isolated crisis does not provide a fair picture. This chapter therefore gives a brief background to the phenomenon of riots in Sweden and areas particularly exposed to social unrest.

Social unrest and riots

The occurrence of violent disturbances and riots is not a new phenomenon in Sweden. One historian claims that there are striking similarities between the Husby riots and previous riots, going as far back as Södermalmsupploppen in Stockholm, in 1719, both in their underlying mechanisms and how they took form.[4] In the Berzelii riots in Stockholm, 1951, the police had to act against 3000 young people, after several days of unrest. In 1965, also in central Stockholm, the so-called "mods riots" led to the arrest of 665 youths, after windows were smashed and fires started. The common denominators of their probable causes were not only believed to be

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1 Svenska Dagbladet, retrieved 2017-05-17.

2 Mats Eriksson (2014).
3 The interviews were semi-structured, with possibilities for the respondents to talk rather freely on their role in the crisis management system, preparation, command and control, communication and lessons learned.

4 Mats Berglund, retrieved 2017-05-27.

a lack of meaningful occupation, but of unfavourable social conditions, with overcrowded living conditions and rootlessness. There were also riots and clashes in the centre of Stockholm in the '80s and '90s, between right- and left-wing groups of young people. Rioters during the '90s had some kind of common identity.[5]

However, in the last decade, the riots have changed somewhat in character. Instead of erupting in the city centres, they now largely occur in suburbs with socioeconomic problems, such as segregation and unemployment. The term social unrest was used for the first time in Stockholm in 2008, when a stone was thrown at a police officer. Since then, its use has become more common, as not just the police, but also fire fighters and paramedics, have been attacked, probably because they are seen as symbols of the established power structures in society.[6]

The possible causes of social unrest may be increasing urbanisation, marginalisation, and stigmatisation of suburbs, as well as the ethnicization of communities that experience high levels of demand in areas such as housing construction, infrastructure, and employment. A widening gap between the rich and the poor, exclusion, discrimination, segregation, and cuts in public spending are also underlying factors that may cause social unrest and, ultimately, violent disturbances.[7]

Exposed areas

An EU-project[8] that has the aim of gathering and disseminating experience and knowledge of good practises for battling social unrest, also describes the areas where riots occur as being disadvantaged urban areas where the socio-economic status is significantly lower than in the rest of society. These areas have large youth groups, a relatively high proportion of which leave compulsory school with incomplete grades. Unemployment and crime rates are also above average. In these areas, criminal attitudes are being normalised. In recent years, co-operation partners who work in the districts have seen a trend where more and more young people shut themselves off from established society and form subcultures with their own values, norms, and laws. Crime has become increasingly acceptable in these areas, while an increasing proportion of young people seem to think that crime against authority is natural behaviour. The consequences are that young people's chances of integrating into Swedish society are reduced, and that residents feel insecure and experience fear. High crime rates in an area also leads to a reduction in or absence of influx of new inhabitants and the setting up of businesses. This leads to a self-segregation, where the area is run by the destructive forces, something which further complicates the integration of newly-arrived individuals.

The empirical connection between ethnic residential segregation and episodes of urban unrest (measured by the number of car burnings reported to police) in Sweden was analysed for the period between 2002 and 2009. A positive link between residential segregation and car burnings was found. Unrest also correlated with a high proportion of young adults and social welfare assistance.[9] Related to this, researchers claim a significant correlation between poverty and criminality. For young people, there are not only material causes of this; the most driving factor could be to gain status and recognition.[10]

When interviewed in connection with riots and stone-throwing, teenagers express discontent with the police, lack of meaningful occupations/idleness, and thrill as causes for these actions. Analysis shows a demand for recognition and social status, but also discontent with living conditions and a perception of injustice.[11] Findings from another interview study of riots in Swedish suburbs in the 2000's state that criminals become a power in some suburbs, and have an influence on young people. If the former start something to disturb the police, young teenagers follow to see what is happening.[12] In the present study, one respondent says that while in many places young troublemakers run when the police come, "these kids are like flies to a sugar cube."

5 Torbjörn Nilsson, Anders Ivarsson Westerberg (2011).
6 Torbjörn Nilsson, Anders Ivarsson Westerberg (2011).
7 MSB, the Swedish Civil Contingencies Agency (2016), p.114.
8 EU project Methodological manual for the cooperation to counteract social unrest, retrieved 2017-06-23.

9 Bo Malmberg et al (2013), pp 1031-1046.
10 Jerzy Sarnecki, retrieved 2017-05-27.

11 Per-Olof Hallin et al (2011).
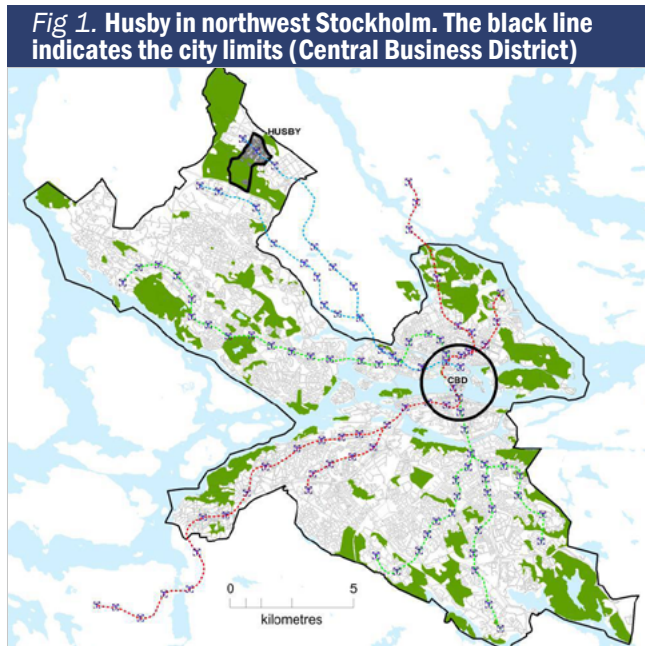12 Lars Nord et al (2014).

2. Description of the Husby riots

The Flemish Institute performed an empirical analysis of the Husby/Stockholm riots, in the form of a case study, as part of an extensive study of riots. The choice of Stockholm was partly because the international public reaction to news of the riots there was astonishment, since Sweden is perceived as being a highly functional democracy. That report, published in English, is worth reading for gaining an understanding of the event itself, and its possible causes, in the context of international experience.[13]

Husby

Husby is a suburb in northwest Stockholm, in the Järva area of the Rinkeby-Kista district (see Fig.1). Of the 12 000 inhabitants, approximately 85 percent have a foreign background (i.e., were either born abroad, or in Sweden, but with two foreign-born parents). 58 percent of the inhabitants between 20 and 64 years of age have gainful employment, about 20 percent lower than for Stockholm. The average income for the same age span is 230 000 SEK a year, while it is 380 000 SEK in Stockholm. About three times as many (proportionally) receive some kind of economic aid.[14] In the City Council elections, slightly fewer than 57 % voted, in comparison to about 82 % for Stockholm in total.

The Government's 2012 report on urban development areas showed that in Husby more than half of the children in these areas live under what research defines as the limit of poverty.[15] Husby is also defined by the police as one of the "particularly exposed areas." These are defined as places having

Fig 1. **Husby in northwest Stockholm. The black line indicates the city limits (Central Business District)**

(Source: Sweco Strategy AB, from Jorg Kustermans - 2014)

parallel social structures, with populations that do not participate in legal proceedings, where the police have difficulties in carrying out their mission, where there is violent religious extremism, and that border other exposed areas.

In the report, "Bilen brinner, men problemen är kvar"[16] [The car is burning, but the problems remain], residents of Husby describe a feeling of not being a part of society and their everyday experiences of racism and discrimination, and of not being heard by the politicians. The criticism of the police goes further back than the riots. Hence, Husby has ticks in all the boxes for the indicators of an area subjected to social unrest described in the previous chapter. Nevertheless, a recurring description is that residents feel there is a strong community in Husby, with many associations and a well-functioning civil society, and where people feel responsibility for each other and the suburb.

Course of events[17]

On May 13, a 69-year-old Husby resident was shot to death during a police action. Initially, police had told the press that the man had died from his injuries at the hospital, but it later emerged that he had died at the scene.[18]
The police noticed indications of possible social unrest on the Friday just after the shooting; however, nothing happened. One community-based organisation, Megafonen, which has the aim of organising residents of Stockholm's northern suburbs to fight for social justice, organised a demonstration on the following Wednesday, May 17, to demand clarity regarding the situation. There were some speeches from representatives of the organisation, although neither the police nor local politicians were present to answer questions.

The riots in Husby started on May 19, the night between Sunday and Monday, quite unexpectedly. More than 100 cars were set on fire and a fire was lit in a nearby garage, resulting in the evacuation of an apartment block. Around 50 residents were evacuated and sheltered in buses that were on hand. The local shopping centre was also vandalized.

Forty emergency workers from both the police and the rescue services were involved. The police were met by stone-throwing from masked rioters, which injured three policemen. The local police claim that the action was planned, including the fires, cocktails, and rocks. Six arrests were made, on suspicion of assaulting a public official. The police estimated that about 50 young people, teenagers about 18 to 19 years old, were directly involved in the riots the first night. They were probably Husby residents, however, none was arrested. Calm was restored by 5.30 am. The community-based organisation, Meg-

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13 Jorg Kustermans (2014).
14 City of Stockholm, retrieved 2017-05-27.
15 Arbetsmarknadsdepartementet (2012).

16 Paulina de los Reyes et al (2014).

17 Swedish Women's Voluntary Defence Organization, Sollentuna Lottakår, retrieved 2017-05-27.
18 Dagens Nyheter, retrieved 2017-05-27.

afonen, held a press conference to call for an investigation of the shooting. They also claimed that the disturbances started as a reaction to police brutality against citizens.[19]

The next night, the riots continued, with numerous objects, mostly cars and containers, set on fire (Figure 2). That night, stones were also thrown at both the police and fire fighters. Heavily armoured police, with dogs, tried to scatter the stone-throwing young people so that the rescue services could initiate the extinguishing of the fires. Seven policemen were injured lightly. The police estimated that more people had been involved than on the first night, up to a hundred. Seven persons, between the ages of 15 and 19, were arrested. Unrest was also reported from other suburbs of Stockholm. The riots spread to the suburb of Jakobsberg, where a fire fighter was injured when a stone went through the car window.

Fig 2. **Scene from the riots in Husby 2013**

(Source: Photo Alexander Mahmoud/Scanpix)

19   Megafonen, retrieved 2017-05-17.

The night between Tuesday and Wednesday, Husby Gård, an art hall and workshop, was set on fire and burnt to the ground. As the riots continued, people arrived from outside the Husby area to take part in the riots; Husby became a stage to act on. Eight people were arrested in Stockholm, one of them for arson. The Stockholm City Council describes May 22nd as the peak of the disturbances in the entire area.

The following night, between Wednesday and Thursday, the local community mobilised on the streets of Husby to curb the riots. On May 24th, the area was declared to be under control. However, both the American and British defence ministries warned their citizens against staying in the riot-prone areas of Sweden.[20] The ministries of defence of the Netherlands[21] and New Zeeland also issued warnings about travelling to Stockholm.

For the riots in Stockholm as a whole, the aggressive actions were targeted at public buildings such as schools, pre-schools, and libraries. There were approximately 150 car fires. In total, 700 incidents were reported. 32 police officers were injured. There were approximately 400 reports of suspected crime in relation to the riots, although most of them were later dropped. In Husby, 44 persons were detained during the riots, 17 were arrested and one was held in custody. Five young people were taken care of in accordance with the Act containing Special Provisions on the Care of Young Persons (LVU).[22] Four persons was held legally responsible in connection with the riots. One person was sentenced to six months in prison, one to community service, and two were fined.

20   BBC, retrieved 2017-05-29.
21   Dagens Nyheter, retrieved 2017-05-29.
22   By applying the Act containing Special Provisions on the Care of Young Persons (LVU), a child may be committed to compulsory care on account of his or her home environment, or because of his or her behaviour.

Aftermath and analysis

The riots in Husby have been described as an illegitimate expression of a legitimate discontent with unemployment, insufficient education, and the police.[23] Researchers have found similarities with the riots in Paris 2005, Greece 2008, and Britain 2011. All took place in segregated, urban environments in societies with high social inequality, and where immigrants have little contact with the majority population. Their populations are young, the parents often on welfare support. Police involvement in fatalities has been the trigger.[24]

However, local police shed no doubt that criminal structures were also involved in, and perhaps also initiated, stone-throwing against the police.[25] This opinion is supported by representatives of local authorities who were also contacted in this study; the riots were initiated to cover for more severe criminal activities; young people were paid to draw attention from and drain the police of resources; and also, possibly, they were in sheer revenge for a police operation that had been going on for a couple of months. The police had been searching for criminals, using confrontational measures, during the spring of 2013. The fatal shooting of the Husby resident by the police was then used as a pretence for starting a riot. It is worth noting that the police did not expect riots in Husby, but rather in nearby Rinkeby or Tensta, where the situation was perceived to be more turbulent.[26] This could point to the theory that the riots had parallel causes.[27] A suspicion expressed by one of the respondents is that the very same persons who started the riots also contributed to ending them, as the extensive media coverage meant that their criminal activity could not proceed as usual.

23   Jerzy Sarnecki, retrieved 2017-05-29.
24   Svenska Dagbladet, retrieved 2017-05-27.
25   Expressen, retrieved 2017-05-30.
26   SVT, retrieved 2017-05-30.
27   From interview.

Jorg Kustermans (2014) described three separate dimensions of the analysis: the interaction between police and youth, the relationship between city and suburb, and the game of power and resistance. The author discusses these dimensions in terms of distance, e.g., mental and social, material and symbolic. Distance is seen as a condition of the possibility of violence.[28]

Paulina de los Reyes and fellow researchers at Stockholm University added to the analysis by letting the residents of Husby be heard.[29] The report showed a substantial difference between how the media described the events and how the residents perceived them. There was a general dissatisfaction with the media image of Husby, which focused on the car fires, but not on the daily oppression.

3. Main actors

This chapter briefly describes the various parties involved in the riots, both generally and during the crisis. Some of them are actual crisis management actors, while others, even if they lack an organisational structure, share instead a common function or other attribute.

Rioters

The local police assessed that most of the rioters were probably Husby residents, predominantly young men, even as young as 12 years old. However, since few arrests were made, it is difficult to say with any certainty. Moreover, many of the rioters were masked and moved in larger groups. First responders report that it was sometimes difficult to separate actual rioters from curious "by-standers."

Residents

The residents of Husby were of course heavily affected. Their neighbourhood was subjected to extensive vandalization. However, there was also discontent about how the media portrayed Husby and the events. At the same time, many residents also describe a strong community and a well-functioning civil society.

The general view received from the authorities is that it was the gathering of the good forces of the neighbourhood that put an end to the riots.

First responders

Emergency calls to the public emergency phone number (112) are answered by SOS Alarm. The SOS Alarm operator then dispatches the correct emergency service.

The Rescue Services

Within the county of Stockholm there are four different fire departments, which are not geographically coherent. There are two rescue centres that receive alarms, one south of Stockholm (Lindvreten) and the other in Täby, north of Stockholm. They can call upon other units in the region, and also from other fire departments. During the riots, two fire departments, Attunda Fire Department and Greater Stockholm Fire Brigade (SSBF), were involved.

The rescue services are mainly governed by the Civil Protection Act (2003:778). According to the Act, they are responsible for working to prevent fires (and other accidents), but since they are municipal bodies they are also part of the municipality's overall work towards improving safety and security. Of course, the rescue services also need to secure their own working environments.

The Police

Until 2015, the Stockholm County Police was an independent authority. Today, Stockholm is one of seven Police Regions, which in turn are divided into Local Police Districts, based on the boundaries of one or more municipalities or boroughs.

The local police stations are found in areas where criminality and insecurity as a whole are high. The local police are responsible for the majority of all police interventions and general crime prevention. The community police are the local police in the area. They have a good knowledge of the local community as well as of the problems that characterise the area. The community police collaborate with most of the actors in the local community in different forms, although their main partner, in a structured form, is the District Administration. The police work through citizen dialogues to create situational awareness and identify measures for overcoming local challenges and problems.

28 Jorg Kustermans (2014).
29 Paulina de los Reyes et al (2014).

"It is extremely important to have a locally-grounded police"

A video interview with Jörgen Karlsson & Johnny Lindh
*Superintendent and former chief of community police
the Kista community police area*

URL: https://youtu.be/5JRz6SYJLKE

These are described in so-called "promises to the citizens."[30] The contact police are community police that are also commissioned to act as contact persons with schools in the area, to foster trust between the police, the school staff, pupils, and parents.

After seeing riots and stone-throwing against the police, cooperation in the Järva area has been successively built up for a little more than ten years. The police in the Västerort City Police District were involved at the time in the project, Methodological manual for cooperation to counteract social unrest, which was funded by the EU Integration Fund.[31] Its purpose was to share experience and successful working methods for counteracting social unrest,

30 Swedish Police, retrieved 2017-06-23.
31 For a summary of the project and the manual, see the website of the EU project, retrieved 2017-06-23.

and was aimed primarily at cooperation partners within the police and the municipality, where the schools, social services, and recreational activities are under the responsibility of the municipality. Other users could include the fire brigade, parties responsible for public transport, religious organisations, non-profit organisations, and "good and relevant forces." The project had the broader goal of providing a good opportunity for newly-arrived individuals to integrate with Swedish society and for more young people to leave school with complete grades. The idea was that this would lead to a reduction of the breeding ground of social unrest, crime, and social exclusion among the young.

The manual focuses on long-term cooperation carried out according to the following situational picture codes:

in the green situation, a normal situation prevails with the line operations. Long-term crime prevention measures directed at young people are in force, designed to improve the structure of the line operations and in the cooperative work;

in the yellow situation, information has been received with regard to unrest, or to a specific incident that could result in an outbreak of violence. In this stage, it is important to prepare the cooperative organisations for the red stage;

in the red situation, there is collective violence in the form of arson, stone-throwing, vandalism, and violence and intimidation of community representatives. It is important to promptly subdue the unrest by implementing the organisation and the measures that have been planned;

in the orange situation, after the unrest, it is important to convey information to the residents of the area as well as to all involved in the cooperation. In this stage, it is important to clean up and survey what resources are necessary for returning to a green situation. There is preparedness for the aftermath and the local cooperating organisation is maintained until the situation has returned to the green stage.

The project also developed a checklist that provides a basis for assessing whether there is a danger of social unrest in an area. The checklist is a proposal for how the analysis can be facilitated when assessing whether there is a risk of social unrest in a district (see Appendix 1). The checklist is intended to be used in a cooperative context, between municipalities/districts, police, and the emergency services, to create a common situational picture. By using the checklist, cooperative partners can together determine the prevailing situation and thus draw up action plans.

Also relevant for this type of event are the dialogue police, who work with special police tactics, a concept used to mitigate disturbances in connection to demonstrations and large gatherings. It is based on four conflict-reducing principles: knowledge, facilitation, communication, and differentiation. These are meant to make the organisers of demonstrations feel responsible for their own actions, so called "self-policing". The work builds on mutual respect; hence, the only source of information is open dialogue.[32]

Stockholm City Council with Rinkeby-Kista district council[33]

Swedish municipalities are autonomous authorities. Stockholm City Council consists of fourteen district

councils, of which Rinkeby-Kista is one. These divisions were created to enable governance that is closer to the inhabitants. The municipalities can be described as cornerstones, when it comes to crisis management, as they have a geographic responsibility. In the case of a crisis, they are responsible for prioritisation and coordination of intersectoral actions within their geographic areas, for example in coordinating dissemination of information to the public and in initiating the development of an operating picture.

Municipalities are also responsible for crisis preparedness. The law on extraordinary events (2006:544) and the civil protection acts stipulate that municipalities must identify risks and vulnerabilities and how they can be decreased. The analysis is to be reported to the County Administrative Board.

Rinkeby-Kista District Administration conducts work to counteract addiction, criminality, and other anti-social behaviour. Field assistants, i.e. trained social workers, work int the daytime in schools, at youth centres, and on the Internet. In 2011, citizen warden operations started in Rinkeby-Kista, with the purpose of contributing to a safer society, by for example conveying a sense of security and motivating young people to get involved in activities.

In this type of riot situation, citizen wardens' primary role is to provide the police with situation reports. They can also help to disperse congregations of young people who are not necessarily participating in the riots, but loitering in the vicinity, as well as help in trying to collect contact details from witnesses. There are also youth wardens, between the ages of 18 and 24, hired for a limited time (1-2 years), with the aim of contributing to an increased feeling of contentment in the area. The idea is also to give the youth wardens a picture of what social work involves and inspire further studies or work

within the area. The aim is also to offer "older" adolescents with little work experience the opportunity to acquire work credentials, as well as act as good role models. Their assignment is to communicate with adolescents in their environments, for example in youth centres and meeting places for young people.

Local crime prevention council[34] is a collaborative forum of actors authorised to make decisions regarding security in buildings and outdoor environments. In meetings ans security tours existing problems as well as who is capable of addressing them are identified.

Prior to every weekend, the police compile a situation report, which is spread through the district council administration by text messages sent to about 200 collaboration parties, together with an invitation to briefing meetings. These are convened on the initiative of the police and the District Administration; different actors and organisations, such as citizen and youth wardens, field assistants, patrolmen, parents, night neighbourhood watch, and so on, participate. The meetings have been held every Friday and Saturday, as well as weekdays during school holidays, since 2008.

Governmental bodies

The Swedish Civil Contingencies Agency (MSB) is responsible for issues concerning civil protection, public safety, emergency management, and civil defence. During crises, MSB has the task of ensuring that the actors concerned can efficiently use both national resources and international reinforcement resources. MSB hosts national cooperation conferences with the County Administrative Boards once a week, to exchange information about the past and coming weeks.

32 Swedish Police Authority, retrieved 2017-05-27.
33 Nina Axnäs and Annica Nord (2012).

34 Lokala Brå, brottsförebyggande råd.

Social unrest can cause serious social strain and affect vital societal functions; historically, this has primarily involved not only police and rescue services, but social services and health care. For this reason, MSB has funded work to develop a model for integrating social risks into the risk and vulnerability assessment that municipalities are required to perform. "Västra götalandsmodellen," contains guidelines and indicators for facilitating the process.[35] MSB has also developed, together with experts, researchers and practitioners, common guidelines for collaboration and command, and for increasing the ability to handle crisis and disturbances. The aim is to provide guidance to actors to facilitate coordination in a structured manner and to make more effective use of society's resources.[36]

In 2011, the National Risk Assessment became and still is part of MSB´s process of developing a collective capability to prevent and manage extensive and adverse events at all levels of society. Its purpose is to provide a strategic groundwork for the direction and further development of civil contingencies. Scenario analyses are part of the assessment, based on workshops, literature studies, and contacts with experts. In 2013, violent disturbances/riots were one of the scenarios analysed. MSB has also initiated numerous studies on issues such as exclusion, social concern, and social security.[37]

The County Administrative Board of Stockholm is a government authority that acts as a link between the municipal authorities and the government, parliament, and central authorities. In accordance with the instructions of the County Administrative Board (SFS 2007:825) and with the Civil Protection Act, the work includes protection from disaster and emergency preparedness. The County Administrative Board hosts regional cooperation conferences

once a week, to exchange information about the past and coming weeks. Participants in Stockholm might include representatives of the municipalities, the Police, the Armed Forces, SOS Alarm, the Coast Guard, and the Transport Administration.

Stockholm Resilience Region is an initiative that focuses on safety, security, and accessibility. Several public players are jointly developing the ability to work together, to coordinate the resources of society more efficiently, to maintain key public functions in everyday life and in crisis.
This initiative started before the riots, but is under constant development as a result of ongoing experience. Expected concrete outcomes include more accessible roads and improved coordination, both of which will enable the Police, Rescue Services and Medical Assistance to reach people more rapidly.[38]

The cooperation model consists of three levels of cooperation, each of which has its specific focus in the joint management of regional issues:

- directing
- coordinating
- implementing

The Regional Executive Directors Group decides on the budget and focus of joint work. It consists of members of the overall management level in each organization. The chairman of this group is the Deputy County Governor.

At each level there are a number of forums that work from two perspectives - normal mode and activated mode, see Fig.3. Normal mode indicates the ongoing collaborative work that is taking place before and/or after an event. This work is largely about planning, implementing proposed improvements and follow-up. The work also contributes to

the possibility of building a common competence within a specific area. Activated mode refers to collaborative work that takes place in connection with direct handling of particular events.[39]
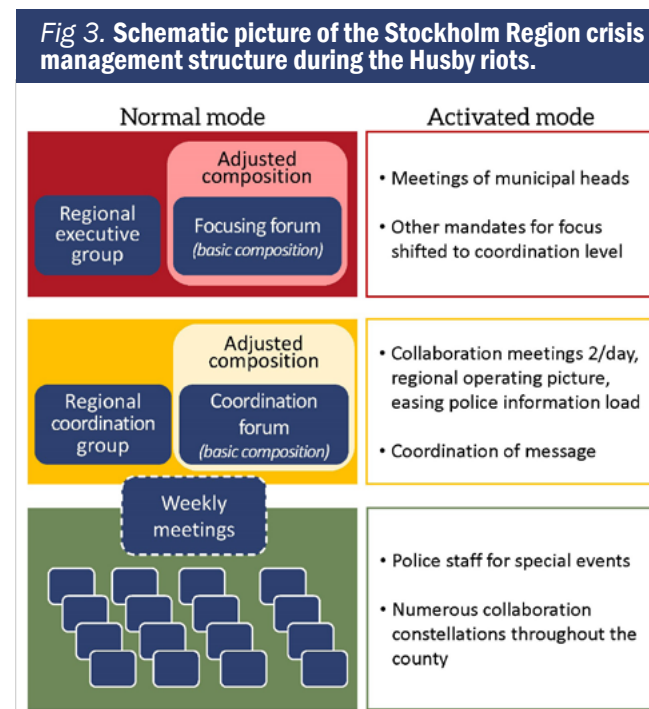
(Source: Samverkan Stockholmsregionen (2013), translated from Swedish)

NGO´s and civil society engagement

The Swedish Red Cross (SRC) is a part of the Swedish emergency management system. The organization is a complement to the authorities and act in collaboration with them in case of emergencies, both nationally and locally. SRC volunteers offers a variety of support, ranging from medical or psychosocial support to practical support. During the riots SRC acted ambedded with the local Muslim Association. As the riots progressed, the citizens of Husby mobilized with various degrees of organisation to quell the riots.

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35 Länsstyrelsen i Västra Götalands län (2013).
36 MSB, the Swedish Contingencies Agency (2017).
37 Torbjörn Nilsson, Anders Ivarsson Westerberg (2011).

38 Stockholm Resilience Region, retrieved 2017-06-13.

39 Stockholm Resilience Region, retrieved 2017-06-13.

"Difficult events are a part of our volunteers' daily lives, and thus we have a responsibility to provide them with effective relief"

A video interview with Jonas Prawitz
Department Manager, the Swedish Red Cross

URL: https://youtu.be/Pd95mq1YR14

Media and social media

There was highly intensive media coverage of the riots. Live-TV was quite a new phenomenon; the images of social unrest often reached most Swedes in real time. This had a substantial impact on the depiction of the events, with the focus on burning cars, which almost became an indicator of the intensity of the riots.

What is portrayed in the media can also affect the turn of events, not only through the priorities of the first responders, but by inspiring other parties to act. In the report, "Varför kastar de sten,"[40] the authors state that media play an important role in social unrest; they become an arena for fulfilling a need to be seen, as the rioting adolescents feel that no one else does that.

International media also reported on the riots.[41] After the riots, the international press wrote articles about them, and how these events disrupt the image of a Scandinavian idyll. "For many, the only place where violence and Swedishness go together is in the pages of a novel by Stieg Larsson or some other Nordic crime writer," the Economist wrote,[42] while the Huffington Post stated that, "given Sweden's traditional reputation as one of the world's most tranquil countries, the riots came as a surprise to many foreigners."[43]

A recent research project investigated public opinion, media reports and authorities' crisis communication, one of which was the Husby riots. Feelings expressed by the public in social media differed from those expressed in relation to e.g. large fires. The social crisis with vandalization triggered anger and irritation or even sadness over what happened, rather than fear or concern.[44]

Social media had an impact on both the public opinion and to organize the forces of the civil society, for example, Megafonen reported on the events through status updates on its Facebook page. The police and residents of Husby, as well as various xenophobic groups, also used Facebook to inform and comment on the ongoing events.[45]

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40 Roughly "Why do they throw stones?", Per-Olof Hallin et al (2011).

41 Reuters, retrieved 2017-05-30.
42 The Economist, retrieved 2017-05-29.
43 Huffington Post, retrieved 2017-05-29.

44 Tomas Odén et al (2016).
45 Tomas Odén et al (2016).

Politicians

The Swedish political governance model is characterized by relatively small ministries and strong and rather autonomous governmental authorities. Every authority belongs to a ministry, which annually regulates the overall focus and budget of the authorities. The government assigns the director-general; however, a minister cannot intervene in the daily operations of the authorities. However, the police who were respondents in this study expressed that refraining from allowing the political debate to affect the priorities was challenging.

Municipalities are obligated by law[46] to have a board that takes charge in extraordinary situations or crises. The board has a command function and is supported by e.g. an analysis function. Often the municipal executive committee constitute the so-called crisis management board, which is also tasked with keeping important functions running during crises. There was an early, and perhaps informal, decision at the local level in Stockholm City to not make politics of the riots.

Nevertheless, at national level there was an intense debate over the causes, political responsibility, and possible solutions. On Monday, May 20, the Minister for Integration, Erik Ullenhag, issued a statement on behalf of the government. The following day, the government was criticized by the Social Democratic opposition for being passive and called for action. That same afternoon, Fredrik Reinfeldt, the Prime Minister, held a press conference where he claimed that the rioters represented a group of young men who believe in the use of violence to change society and that residents and entrepreneurs in Husby were the key to solving the situation.[47]

The leader of the Social Democrats reacted by saying that the Prime Minister blames the victims and holds them responsible for solving the situation. On May 31, due to the riots, an additional parliamentary debate was held, followed by another a couple of weeks later. The Minister for Integration visited Husby about five weeks after the riots, to talk to the police, municipality, and other parties directly involved in handling the situation.

4. Crisis management during the riots

From May 19 to May 24, about 700 incidents, most of which were burning cars and other forms of vandalization, were reported from the riots in the Stockholm region. As part of understanding those events, the preceding chapter describes the official roles and functions of different actors involved. This chapter continues that analysis by focusing on crisis management actors and various aspects of their operations during the riots. It mainly presents individual views from reports and interviews performed in this study, since public compiled and comprehensive descriptions or assessments from the actors have not been found.

Actions

The district council, rescue services, the local police, and civil society representatives are parts of a network for assessing what is going on in the area. However, in this case they did not perceive any indication of disturbances.

Authorities

The fire station in Kista was alerted of car fires via SOS Alarm. When the fire fighters arrived at the scene, they were threatened, and backed away, which turned it into a matter for the police. It was decided early on that the police and the fire fighters should work together, and the situation of social unrest was judged to be more severe than usual. For the fire fighters, putting out the fires was not in itself the challenge, rather, it was having to do it while experiencing aggression and working in conjunction with the police.

Crises are part of the normal business of the rescue services. Earlier experience of riots and of operat-

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46 Lag (2006:544) om kommuners och landstings åtgärder inför
    och vid extraordinära händelser i fredstid och höjd beredskap.
47 Dagens Nyheter, , retrieved 2017-05-27.

ing under threat were manifested in the guidelines for dealing with this type of operation, which most of the fire fighters involved were already trained for. The fire fighters knew what was expected of them and how they should act during the event.[48] When engaging in an operation, the risk picture has to be composed of parameters such as infrastructure and buildings and make adjustments to the tactics accordingly. The traditional way is to locate command and control, as well as fire-fighting resources, in the same place, but this requires a large area and induces vulnerability.

Fire-fighting resources are built up at secure locations, often a bit away from the incident. At the so called protected break points, the fire fighters meet with the police. The incident commander can either choose not to act until the police have minimized the risk of injury from the aggressive situation, or else have the fire fighters escorted to the location of the fire. When the fire fighters go in, they park the fire trucks so they can leave quickly if needed, and perhaps even leave some equipment behind. Other risk mitigation actions include watching footbridges and wearing laser goggles to prevent being blinded by laser beams. As far as possible, fire trucks with laminated windows are being used so that they are protected from thrown objects.

The rescue services had to make the decision to refrain from acting on all of the incidents reported. Rather than for security reasons, this was due to lack of resources, mainly stemming from the large number of incidents, but also because it was more resource-demanding to have to work in pairs and, because of the threat, be unable to leave the truck. Initially, *the local police* (Västerort district) were in charge of the operation, which was treated as a local incident. As the riots began, during the night between Sunday and Monday, when man-

ning was low, the local police had to ask for more resources rather soon. Command and control was moved from the local to the county level. At noon, on Monday the 20th, the police authority labelled the event a "county special event", implying that it was too comprehensive to be handled within the normal structures. The operation was then shifted away from other ongoing business.

The strain on the police officers was very high, some were out in the field for ten hours without anything to eat and drink.

At the same time, there were officers at the police station who hadn't been being assigned any tasks, which created frustration, as they wanted to assist their colleagues. The chief of command of the local police (Västerort district), Elisabeth Anestad, in an article about the events, described the second night of the riots as extremely tough on the personnel.[49] Husby has demanding environments, with roadways traversed by many footbridges, from where stones were thrown down at police cars. On one of the footbridges, a police officer received kicks and punches, which was filmed and released on YouTube. Siv Stendahl, from the police union, Birka, was interviewed for the same article, and describes some of the violent acts against the police during the riots; not only were stones cast at the police and their vehicles, but they were also subjected to fireworks, green laser beams and Molotov cocktails. 32 police officers were injured in connection with the riots (not only in Husby), in part because certain groups of police were not equipped with adequate arm, leg and chest protection.

The police experienced pressure from the political level to focus on actions that would make it possible to prosecute the rioters. However, the police assessed that they had to prioritise the security of the fire-

fighting operations and protect exposed buildings.[50]

Rinkeby-Kista district council received knowledge of the riots from one of the citizen wardens. The district council was initially in charge of the municipality's crisis management. The district council enhanced the overall presence in the neighbourhood through the presence of relevant administrative officials, for example, the manager for security and crime prevention was out in the field with the police. The presence of citizen and youth wardens was also enhanced. Through their presence out in the district, they were able to both receive and disseminate information. Informing about voluntary work as night walkers paid off, for example, as there was large interest among the citizens in helping to resolve the situation. The district council also spread information to listed receivers via text messages, and to the public on their web site with FAQ; "Husby is open!" was the message. The district council also arranged barbecues in the evenings to get residents out in the neighbourhood. The police described the district council as their source for mobilizing and organizing volunteers.

The City Council activated a pre-set organization model for crisis management, which involves links for communication with the police. Three functions were set up: cooperation, analysis, and communication. The functions were tasked with coordination of actions for situational awareness, media coverage (including social media), information, and communication (also internally, to make sure that vital functions, such as home care, were still working). Analyses of ongoing incidents were performed on a regular basis, to map them in terms of type of incident and where they occurred. Resource planning had a time line of one week in advance. The operating picture was also presented to the political level.

48 Storstockholms brandförsvar (2013).

49 Polistidningen, retrieved 2017-05-27.

50 From interview.

Fig 4. Map in the common operating picture on 24-05-2013

(Source: Eniro.se and SOS Alarm AB)

The City acted according to the broken windows theory, that is, a criminological theory of the norm-setting and signalling effect of urban disorder and vandalism on additional crime and anti-social behaviour. The theory states that maintaining and monitoring urban environments to prevent small crimes such as vandalism, public drinking, and toll-jumping helps to create an atmosphere of order and lawfulness, thereby preventing more serious crimes from happening. The City therefore acted with the Swedish Transport Administration to remove the burnt cars as quickly as possible.

However, the City was caught off-guard when travel companies called to say that tourists were reluctant to enter Stockholm because of the riots. This was due to the international media reporting of the riots. For example, Chinese media took great interest in the events, because of the Chinese enterprises in the Kista business area. Once they had been noti-

fied of this, the City invited the international press to the City Hall, where they described the turn of events and possible measures.

The County Administrative Board of Stockholm held six regional cooperation conferences for various parties in the county. In total, nine of the county's municipalities were directly affected by the riots. The County Administrative Board also had a liaison resource with the police command.
The Stockholm Resilience Region acted accordin to the model described earlier. On the highest command level, meetings were held with the heads of the municipalities of the county. On the collaboration level, cooperation conferences were held twice daily, to assess the situation and build a common operating picture. In preparation for these conferences, the City compiled information and made suggestions on the way ahead. There was also a mandate to move resources between the districts councils.

During the riots, the *Swedish Civil Contingencies Agency (MSB)* worked to create situational awareness and a common operating picture (see example of a map produced for the common operating picture in Figure 4); it followed the course of events and enhanced cooperation with the concerned parties. It also worked with various County Administrative Boards to analyse the risk that the disturbances would spread. MSB produced seven joint and up-to-date situational reports, between May 21 and May 30, to add to the actors' situational awareness. These contained a description of the event, the measures that MSB and other actors were working on as part of, or in support of, the crisis management, and an assessment of the situation, for example in terms of media coverage. The reports also included maps of incidents (see below). The

common operating pictures were published in the national information system, WIS, so as to share information with all the actors concerned.

MSB also hosted regular national cooperation conferences, at which the County Administrative Board informed other parties of the riots. MSB also collaborated with SST, The Commission for Government Support for Faith Communities, which was engaged in Husby both through networking and collaboration with the dialogue police.[51]

Civil society's engagement

The gathering of *"the good forces"* has been described by many actors as the clue to the solution of the crisis.[52] As the riots progressed, the citizens of Husby, with various degrees of organisation,[53] mobilized to end the riots. Parents and other residents showed up to nightwalk and guard facilities such as pre-schools to protect them from arson. They also stood on the footbridges to prevent stone-throwing and arranged barbecues in public places. The district council, in dialogue with the local police, associations, and congregations, took care of and organised some of these forces, but some were also self-organising, with the help of social media. However, since moving about during the most intense phase could be dangerous for them, it was only after a few days that their contribution paid off.

The Swedish Red Cross (SRC) assessed the riots as being an uproar against the authorities. They took

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51 The aim of the support is to enable congregations to work actively with a long-term focus on worship, education, and spiritual and pastoral care. SST coordinates the role of the faith communities in contingency planning and encourages cooperation between faith communities and the public sector.
52 E.g., a representative for the county police communication department, when interviewed for this study.
53 E.g. the Muslimska föreningen ("the Muslim Association"), Streetgäris (a network for women who arranged a peaceful demonstration against violence), and the African Mothers.

action during the events on their own initiative, as they saw the need for cooling the situation off. The SRC contributed a first aid group, which participated by being embedded with Muslimska föreningen (the local Muslim Association).

Before deciding to engage, the SRC had assessed the situation according to a set standard used to decide whether and how to act. One of the most important things they assessed was whether it was legitimate for the organization to act. The action then had to be designed to achieve the best effect, and theoretical possibilities needed to be matched with practical opportunities. Earlier, the SRC had had activities in Husby for a time, but those were shut down in connection with a political action against the then-current housing policy. Since the SRC did not take a political stand, it was regarded as part of the establishment and lost legitimacy in Husby. Thus, the SRC decided to assign 15-20 volunteers to participate in Rinkeby, a nearby suburb, for a couple of nights.

The choice was made on the basis of its having a certain degree of legitimacy from previous collaboration with other organisations there. The volunteers participated by being embedded with Muslimska föreningen, as a way to add to their legitimacy. Without that possibility, the SRC would not have engaged in the situation.

The SRC always has contact with the police, to add to the situational awareness. First aid-groups often participate in different events and thereby have good collaboration with the police. Before the final decision about the Husby situation was made, the SRC had been in contact with the police incident commander to assess the security situation in the area being covered. As always, it was essential to assess the safety of the volunteers when deciding whether to engage. This included

weighing the possible risks against the expected value of engaging. In their discussion with the police, entry and withdrawal points from the situation were also considered. A schedule for rotation – three days, to begin with – was elaborated. The first aid group acted after two days into the riots. The action was terminated after four nights, as the volunteers were being threatened and physically attacked.

Cooperation and organisation

Many actors were involved, including two rescue services, the police, a couple of municipalities, and the Stockholm County Council; hence, the City describes cooperation and collaboration between the different parties as having been essential in resolving the situation.

Cooperation between first responders in fire-fighting operations in aggressive situations is well developed at all levels, both preventively, with briefings and joint planning, and directly, in operations. Normally, the rescue services have yet one more command level, so the police often assign an additional level of command to fit the chain of command of the rescue services. It is appreciated that the commanders are able to work with the same persons throughout the event.

During the Husby riots, the rescue services changed the routines due to the threat against them, and the external commander, EC, rode with the police incident commander during the whole operation. Also, the internal commanders of the police and the fire fighters kept records of the situational awareness, every half hour. Both rescue centres took turns sending staff to the police headquarters. Information from the police intelligence sources provided the fire fighters with important information on what was happening, what could be expected, and what was on social media.

The rescue centres had an operative commander and a duty commander/fire chief on call and five command operators. Below that level was the incident commander and below that, the EC/site commander. EC coordinated and optimized the work done in the sectors; the sectors had different tasks and were led by a sector commander. The rescue services minimized rotation and worked in 24-hour blocks. Commanders at all levels participated in telephone briefings. Also, the rescue services appointed a staff, to assist the operation over a longer time perspective than that of the operators. The staff was led by a chief of staff; other functions were resource planning, analysis, and communication. Other events that occurred during this time were handled by other personnel.
However, the large number of simultaneous incidents, occurring during several days, was challenging for the police. In some places, the police were neither able to support each other, nor the rescue services, but had to back away. Due to highly intensive and poorly organized radio communication, the police found it difficult to identify the colleagues in need of assistance.

Since the police labelled the event a "special event," a set management model, with roles known to all those involved, is applied. A special staff, led by a chief of staff, worked actively towards the event and coordinated resources so it would be handled efficiently. In the field, there is a field staff, led by a police incident commander (PIC). However, the experience of the county police was that there were many different opinions and wills in the organisation, which in a way paralyzed an otherwise well-functioning operation. A lot of energy was used to organize the internal activity, rather than in support of the operation in the field. Also, the internal communication had shortcomings, with a gap between the staff and those in the field, and valuable information was lost.

As the police switched from local to county level, with a centralized command, the local fora for collaboration were no longer functional. Therefore, the Stockholm City Council took the lead from the Rinkeby-Kista district council, although it would eventually have been involved anyway, since eight district councils were directly affected by the riots.

The City´s pre-set organization model for crisis management had been developed from previous experiences, and involved resources from the entire municipality. Exactly how the crisis management organization would be built up depended on the situation at hand. Collaboration between the many actors in the region became a prerequisite for successful handling of the situation. Parties not directly involved also offered resources to support the crisis management.

During the riots, the crisis management organization switched from normal mode to activated mode. Within the Coordination Office, there was a pool of individuals from the actors who were leading the work, called a "Regional Coordinator in Preparedness". As a result of the Husby riots, cooperation within the county has since been enhanced, for example by educating hundreds of employees a year.

Crisis communication

Crisis communication is an important part of crisis management, even more so when the crisis revolves around a clash between different perceptions and opinions, and there is no one true description. Crisis communication can be extra challenging when it comes to social unrest, since a significant part consists of debate and opinion, and not only of information about what has happened. Questions such as why it happens, what mechanisms are behind it, and what could have been done to avoid the unrest, have no simple answers.[54]

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54 Lars Nord et al (2014).

The authorities' crisis communication is about the citizen's right to information and open social dialogue when crises occur. Apart from giving information, the authorities should also collect useful information from the public, as well as warn, calm, and discuss, when relevant. Crisis communication by the involved authorities can also to some extent affect the course of events and the duration and severity of the unrest.

Proper communication during crises is difficult, even more so these days, when there are more sources and channels for information than ever. This places higher demands on the coordination of authorities' information and on the ability to reach the public effectively with relevant information. To add to this, social media can help to spread relevant information quickly. However, there is also a risk that groundless rumours and speculation are spread just as quickly, and strongly affect public opinion.

Different actors used different channels to disseminate their information about the riots. The district council not only chose to do so on their website, but, above all, through enhanced presence in the neighbourhood. This was considered an important way of calming the situation, but also for receiving information. The city council also informed on the events via stockholm.se, but, as a complement, also sent out information to all households, in different languages, on how, for example, the way that different public institutions were affected might in turn affect the citizens.

Krisinformation.se is the intergovernmental website for emergency information. Krisinformation.se created a special site for information about the riots, compiled from the regular cooperation conferences. MSB compiled information for publishing on their website, about the agency´s work to prevent social unrest.

The police's crisis communication policy is that communication – within the authority, with citizens, clients, the media, and other actors – shall contribute to the success of the police's mission to increase security and reduce crime. The police are also responsible for being open with information. Media pressure on the police to provide information on the riots, sometimes at the expense of the police's internal communication, has been described as extreme. The county police's communications department formulated three messages for dissemination through different channels: we are not leaving the suburb; we do not start riots; and we work together with "the good forces." The rationale for these messages was that there was nothing to gain from entering into political debate, but rather that it was better to encourage local collaboration and dialogue.

The first night, the image in the media was that the police had provoked the riots and met the rioters and by-standers with brutality. Witnesses claimed that the police had called the rioters/protesters derogatory things. The county police reported its own operation to the National Police-related Crimes Unit,[55] so that allegations of abuse and insult could be investigated. However, the investigation was dropped, due to lack of evidence.

After a couple of days, the media started to question this position, focusing instead on the victims, and public opinion gradually turned. The Kista police district underscored the important role of social media in changing public opinion. This has received support from a study on the role of social media in connection with social unrest and of their interaction with traditional news media. The study tried to answer, for example, how social media affected the authorities´ opportunities for dialogue with the citizens, and to what extent they affected reporting in

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55 Now the Separate Public Prosecution Office (Särskilda åklagarkammaren), which deals with suspected offences committed by, e.g., police officers, prosecutors, and judges.

national news media. The study showed that social media had a marked impact on turning opinion. Other issues had been put forward by social media to give nuance to the events, which was important for gathering "the good forces."[56]

The Kista police district, however, did not use Facebook until a couple of days into the events, for different reasons, something they now regret, as Facebook is considered a good means for reaching their target group. Another police district had to close down their Facebook account, due to lack of time for moderating, and sometimes removing, the comments published there.

The rescue services, SSBF, waited until they had a clearer operating picture before communicating. They also chose to let those who were not in operative service and who had more comprehensive perspectives communicate more generally, especially on Facebook, about the actual situation, resources and safety, and the mission of the public. The rescue centres used Twitter to inform the public.

5. Lessons learnt

From a crisis management perspective, there are a number of possible actions for both trying to prevent and to handle social unrest. Since social unrest and riots have increased in Sweden during the last decades, many initiatives to improve this situation had already been undertaken before the riots in Husby took place. In 2013, MSB's National Risk Assessment analysed social unrest. The scenario studied had been developed before the riots in Husby, although the workshop with the involved parties took place just afterwards.

During the workshop, some measures were discussed, for example:[57]

- linking preventive actions to identified risk factors (such as societal and economic marginalization, discrimination, and racism);

- establishing informal and formal networks to achieve quick response when societal unrest has turned into riots;

- disseminate correct information to mitigate anxiety;

- establish routines for police actions that are not seen as provoking or offensive.

The assessment further pointed to some important crisis management capabilities:

- command and control – to secure vital societal functions, e.g. transport;

- cooperation – between the responsible authorities, with NGOs, parents, etc., to quell riots, and also between municipalities, to better handle situations that spread;

- communication – for disseminating coordinated and correct information to the public and other stakeholders about the situation and what actions are being taken, and to mitigate further riots and the anxiety they cause in society;

- knowledge and competence – of how to act in interventions in areas of great cultural, normative, and religious heterogeneity so as to succeed in preventing the triggering of riots; one measure could be a stronger mandate for the local police, who have more knowledge of the prevailing social and cultural norms;

- resources – for first responders, to handle riots that may last for a long time.

Most of these observations are supported in a study by the two rescue services involved, who undertook to obtain an overview of how the rescue services acted; to provide an idea of how the fire fighters experienced the riots; and to create a basis for continued work. Lessons learned and areas for improvement were identified in relation to command and control and routines for decision making, the ability to readjust, the build-up of resources and endurance over time, cooperation with other parties, communication, both internally and externally, and documentation.

The need for practice and education in this kind of scenario was also a common theme.[58] The above observations provide the basis for the division in the sections below, on lessons learned.

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56 Lars Nord et al (2014).

57 MSB, the Swedish Civil Contingencies Agency (2014).

58 Storstockholms brandförsvar (2013).

Cooperation and organisation

The cooperation under normal circumstances also constitutes the foundation for cooperation in crises. The rescue services' experienced that the co-operation with the police and other rescue services worked well, and that they shared a rather common operating picture.[59] The police also experienced that there had been good cooperation with the rescue services, in an already established way of working. Since the riots, the cooperation has been intensified and efforts have been made to educate local police in staff work, for example. Joint exercises for the first responders are also conducted.

The police resources have been adjusted according to the demands of the actual situation, with the right dimensions, well-adjusted over time. The first staffs had been too extensive, and needed to be reduced. Also, the station commander had been rotated too many times, which steered the operation in different directions, with different priorities. This made the task of the field commander somewhat difficult. One success factor that was identified, hence, is to have as few players as possible. Another lesson is to choose the station commander based on relevant experience. The Stockholm region police, for example, accumulate experience from many types of events. Events that initially are new and extensive are treated as special events, but they can eventually be operated within as normal structures.

The local police experienced that the confidence-building work was more or less wasted as the county level took over. The local police who had been working with citizen dialogues were a bit frustrated when it was judged to be too dangerous to continue using that instrument. Now there is a model for how local police can remain in charge, but

with support and resources from the regional level. The City of Stockholm stated that cooperation and coordination, within the organization and externally, especially with the police, was essential for the crisis management. They experienced that the crisis management organization worked well, while acknowledging that efficient cooperation and coordination is difficult to achieve. The executives on the different boards meet about once a month. There are 4-5 events each year, both planned and unforeseen, for example weather-related events, which call for activating this group,. The model for cooperation has been developed from experience gained from these events, and capability is enhanced gradually.

The SRC have experienced, in this event and in others, that the authorities forget that civil society is a valuable resource. They therefore try to point that out in statements of opinion and assessments. The reception of large numbers of asylum-seekers who came to Sweden in 2015, when volunteers made huge efforts, may have opened the eyes of the authorities in this regard.

Prevention[60]

A study on preventive work to curb threats and violence against rescue services had already been performed in 2011. Representatives of the rescue services suggested that increased involvement in societal work would decrease social unrest. Moreover, many felt that local fire stations are important when it comes to building relations with and gaining the confidence of residents.[61] Similarly, the Husby riots had an important impact on the organisational structure of the police resources. The situation showed the importance of local representation and relations with the residents in preventing

and solving crises. As a result, local police stations can be found today in areas where criminality and insecurity are high; this finding is also evident in the new police organization launched in 2015.

Both the police and the rescue services work on relation-building, for example by having personnel visit schools, which is financed in part through the housing companies, in Husby and other areas. After the riots, the local parties focused on these types of confidence-building and preventive actions, such as the project, "The man behind the uniform," which aims to create dialogue between young people and first responders.[62]

The district administration already had a system with citizen and youth wardens, among other functions. There is a conviction that these resources made a difference and that it is essential that they are known to the rioters. A recent initiative is a pilot project, for three months during 2017, involving security wardens in Husby Centre. The wardens are recruited in collaboration with the police. Security wardens are to have the power to intervene in disturbances and less serious crimes, such as shoplifting. In addition, the district administration is going to open some schools that are used by associations for education and culture, in the evenings and on weekends.[63]

The Swedish Red Cross know from experience that the presence of volunteers can have a softening effect in these kinds of events, since they are not a part of the establishment. However, they must also be present "in the streetview" during normal conditions, to achieve legitimacy, something that at the time was missing in Husby.

In a central assessment of the causes of the riots,

59   Storstockholms brandförsvar (2013).

60   For a summary of cooperation initiatives in the Järva area, see link.
61 MSB, the Swedish Civil Contingencies Agency (2011).

62 Lars Nord et al (2014).
63 City of Stockholm, retrieved 2017-06-23.

the police concluded that changed prioritisation and new methods, using increased controls of individuals and vehicles, had the result that young villagers felt harassed. The local police have had quantitative goals, for example regarding minor drug offenses. Due to the "stop-and-search" policy, there were 40 percent more controls in 2013 compared to 2007, when the measures began. The increased controls left fewer resources for social contact and confidence-building. This agrees with an international pattern; the more repressive the police are, the greater the resistance in these areas will be. Hence, the police concluded that their own methods were one of the causes of the riots, and even made them worse.[64]

Crisis management

Crisis management during the riots faced many challenges; one was to predict the extent of the riots. The police performed an assessment of their operation, but it was never released to the public. However, respondents from the police have stated that the lessons learned from Husby imply that if a similar situation were to occur today, it would be handled better . That the commanders would have had more experience is one concrete factor behind this statement. The commanders would have to be chosen carefully though, based on the type of event.[65] Every operation needs to be adjusted to the specific circumstances. There are different tactics for different suburbs, for example, depending on the informal structures that dominate and if there are civil society resources to interact with ("the good forces"). Do the police have to demonstrate power to gain respect, or does this spark new disturbances? At times, the decision may be to refrain from acting and let the troublemakers tire.

The police would probably not have acted the same way, if they had understood beforehand that the riots would continue and spread, as well; one of the respondents described how this kind of event often "dies out" by itself. There is a constant influx of events, with the possibility of escalation; prioritising is a challenge. Another challenge expressed by the district police is to have mental preparedness for the reoccurrence of this type of event, since maintaining constant manning for it is not realistic. One of the concrete measures taken after the Husby events has been to have supplies of water and energy bars available for police officers, since some officers had to work long shifts without food and water. Another measure is the creation of new maps, showing footbridges in the area, for example.[66]

Earlier experiences from riots had already been manifested in guidelines for fire-fighting operations undertaken in aggressive circumstances, for example, identifying protected breakpoints, supplying laser goggles and installing laminated windows on the fire trucks. However, the Husby riots pointed to a need for a predetermined strategy for working with this type of event, and knowing whether it is one or more operations, and how it should it be led. It is difficult to coordinate resources if knowledge of parallel operations is lacking.[67] Related to this is a challenge identified in another study; to create an overview and prioritise.[68]
Documentation in a fire-fighting operation is very important, especially for rotation of command and for traceability in decision-making. However, during the riots there was no time to file reports after each incident. MSB is working on improvements to the incident report system.[69]

The riots also initiated a learning process within the Swedish Red Cross. There are now systems built to assure that there is a readiness to act. External monitoring and analyses are preformed to assess where, when, and how the SRC can contribute. Their vision is that the entire organization is prepared to switch to a "crisis mindset."

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64 Rikskriminalpolisen, "Analys rörande orsaker till social oro maj. 2013". This report was never made public, but discussed in an investigative TV programme, "Uppdrag granskning," in 2014.
65 Respondent from the county police.
66 Polistidningen, retrieved 2017-05-27.
67 Interview with the incident commander.
68 Storstockholms brandförsvar (2013).
69 From interview.

"When a picture of a burning car is shown repeatedly, you are naturally creating insecurity."

The whole idea in spreading this knowledge to many was that we received very much media time.

A video interview with Varg Gyllander,
Public Relations officer at the Stockholm police

URL: https://youtu.be/5JRz6SYJLKE

Crisis communication

Media will play a role in these events, and will also have to be taken into consideration during the operation. One challenge is knowing when to start communicating with the public, and through the media.[70] What is reported in the media, live TV, and other media coverage, can impact the operation and how the prioritisation is done. For example, the media can affect how worried the public is, based on what they report. One of the respondents provided an example: if the police choose not to act on an incident, for example, to let a burning car burn itself out can make 300 people in the immediate vicinity worried; however, if media shows this and reports it as police passivity, 300 000 viewers can become worried. Now, the police no longer report

numbers of arrests or burning cars, to avoid the risk of shifting to the wrong focus.[71] During the Husby events, the rescue services also followed the many fires shown on live TV. This may certainly provide valuable information, but at the risk of losing perspective, one of the respondents concluded.

Earlier experience had shown that the police are initially seen as being the bad guys. By day 2-3, the media starts to question this and eventually turns public opinion. The police invested a lot of time and resources in being available to the media, always with a personal take on the three strategic messages: we are not leaving the suburb, we do not start riots, and we work together with "the good forces." An evaluation showed that the police dominated what the media reported. One of the respondents

argued that while this was a positive result of the communication strategy, it may have been more problematic from a democratic point of view. The police learnt a lot about crisis communication from the Husby riots. The method, which used many senders to send the same messages, is now known as the pixel method.[72]

A study showed that the majority of the fire fighters involved in the riots felt that the media delivered a provocative and faulty description of the events.[73] Were the riots to occur today, the rescue services would have a press officer operating in the field. The district administration identified that there was a lack of a structure for communication with the media.

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70 Polistidningen, 2017-05-27.

71 From interview.

72 Varg Gyllander (2016), "Kris: 7 metoder för att identifier och hantera kriser i verkligheten" ("Crisis: 7 methods to identify and handle crises").

73 Storstockholms brandförsvar (2013).

6. Conclusions

The Husby riots have both contributed to valuable new lessons and underscored the importance of already ongoing initiatives. Husby, like many of the places where riots have taken place in the last decades, is a segregated suburb characterized by high unemployment and its large percentage of inhabitants who have a different ethnicity than Swedish, many are second- or third-generation immigrants. Hence, if these are the root causes of the riots, they must be handled with a broad approach that takes many factors into account, such as integration, housing policy, and education.

Crisis management actors are also involved in a number of initiatives to lower the risk of riots occurring; these initiatives typically involve confidence-building with the young residents, as well as a broad collaboration between local authorities, non-profit organisations, and residents, and exemplified by citizen and youth wardens and the project, "The man behind the uniform." The actors involved all have a good knowledge of the neighbourhood and the residents. Many of the actors stated that to successfully prevent and quench this type of riot it is essential to have legitimacy in the neighbourhood

However, crisis management actors have to be prepared to handle riots when they occur. Many of the crisis management initiatives build on the collaboration networks mentioned above. Some of the initiatives try to capture signals of social unrest in the neighbourhood, such as the indicators in the checklist in the manual, discussed above, on methodology for cooperating to counter social unrest.

The text messages to listed receivers and the briefing meetings during the weekends are means for receiving and spreading information to collaboration partners. In addition, the respondents believe that the riots would have lasted longer, if the authorities had not received assistance from the good forces in the neighbourhood.

Fig 5. **The police need legitimacy in the neigbourhood to be able to prevent riots and gather "the good forces"**

(Source: Photo Leif R Jansson/Scanpix)

To be better prepared, crisis management actors conduct joint exercises and design appropriate organisations by, for example, matching command-and-control structures with exchange of situational information. Also, in some areas, there are pre-identified locations to lead fire-fighting operations from. Fire-fighters can operate from breakpoints protected by the police. Access to better knowledge of the area is also important; an example is maps that show footbridges from where first responders might be attacked or trapped. Other measures of a more practical nature include knowing how to situate fire trucks so that they are can quickly withdraw from the situation.

Another highly concrete measure that the police have adopted since the riots is to have supplies of water and food – for example energy bars – for enduring an extended course of events, since one of the challenges is to know how long the riots will last. Related to this is the challenge in assessing which police tactics will be most effective in a specific situation and area.

Crisis communication has to consider that these types of events raise public opinion and in some cases also affect how a crisis evolves. The first responders stated that what is reported in the media can also impact how they choose to act. During the Husby riots, proper crisis communication was important for being able to gather the voluntary good forces – something that has been described as having been essential in ending the riots.

1. Questions

Please watch the whole video: The Husby Riots in 2013 – Jörgen Karlsson & Johnny Lindh, Järfälla police (pages 26, 29, 38) before answering questions:

1. How did the police prioritize the task among other ones?

2. What were the main reasons for their prioritization?

3. Why can it be difficult to arrest and prosecute rioters, in these situations in the exposed areas?

4. How can the ability to prosecute rioters be improved?

5. Why is it important to have locally grounded police participating in handling in these situations?

6. What are the factors that brought to success in the riots crisis management?

7. What is the purpose of the handbook and the checklist (see Appendix 1)?

8. In what terms do the police assess the situation in (areas like) Husby?

9. How is data collected and analyzed?

10. How do they label the different situations?

11. How do the police label an *orange situation?* what actions are prioritized then and why?

2. Discussion

A. Do riots happen in your country? Describe the most recent event according to the plan:

*   What happen and why

*   Actors involed

*   What services and organisations managed the emergency

B. Discuss the preventive measures of the Swedish police concerning the riots a) prioritization; b) checklist. Would this be applicable in your country?

    What more could be done to either prevent or handle riots?

3. Scenario

By using the website https://www.krisinformation.se/engelska provide the description of your actions according to the following scenario:

Imagine you would come to Sweden for holidays, you do not speak Swedish and became trapped in emergency (for example, riots).

*   What would be your actions?

*   Where would you call? Which apps/technologies would you use?

*   Whom would you contact for help?

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- Anders Jönsson, crisis preparedness coordinator Police Region Stockholm. Interviewed March 15, 2017

- Dejan Stankovic, head of unit at Rinkeby-Kista District Council, interviewed May 31, 2017

- Jonas Prawits, Department Manager at the Swedish Red Cross. Interviewed January 27, 2017

- Johnny Lindh, Superintendent, the Västerort Police. Interviewed February 16, 2017

- Jörgen Karlsson, Superintendent and former chief of community police in the Kista community police area. Interviewed February 16, 2017

- Mats Körner, incident commander, the Greater Stockholm Fire Brigade. Interviewed 16 March, 2017

- Patrik Åhnberg, Stockholm City Council Chief Security Officer during the riots. Interviewed 21 February, 2017

- Peter Bergström, external commander, the Greater Stockholm Fire Brigade. Interviewed 7 March, 2017

- Varg Gyllander, head of media centre, Police Region Stockholm, responsible for all external media communication during the Stockholm riots. Interviewed March 15, 2017

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Checklist in the manual for cooperation to counteract social unrest

Warning signs/indicators of social unrest[1]

This checklist is a proposal for how the analysis can be facilitated when it comes to assessing whether there is a risk of social unrest in a district. The checklist is intended to be used in a cooperative context between municipalities/districts, police and the emergency services.

Signals and signs must be interpreted and placed into context. An area's problems and resources vary and change over time.

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1 https://polisen.azurewebsites.net/index.php/print/

No.	Evaluate the following on a scale of 1-4, where 1 is not at all and 4 is very much	1	2	3	4
	POLICE AND OTHER ORGANISATIONS				
1	Have the police carried out a major operation in the area perceived as offensive or discriminatory?				
2	Have the police carried out actions against individuals perceived as offensive or discriminatory?				
3	Have any other organisations (security personnel, traffic wardens, the emergency services or any other representatives of authority) been prevented from carrying out their duties or been exposed to provocations?				
	THE MUNICIPALITY/DISTRICT AND SURROUNDING AREAS				
4	Has the municipality/district implemented any major cuts/changes in different aspects (social services, leisure, school, etc.) which have led to protests?				
5	Is there social unrest in other districts of the municipality, or in other parts of Sweden?				
6	Is there any violent conflict in the world (city, Sweden or internationally) affecting the municipality/district?				
7	Are there political activities in the form of e.g. campaigns, petitions, demonstrations or occupations that indicate dissatisfaction on parts of the population?				
	SIGNS OF UNREST				
8	Have there been cases of stone throwing or threats against police officers?				
9	Have there been any cases of arson in the area?				
10	Is there a pattern in the area with regard to minor cases of arson/hoax calls?				
11	Are there piles of stones and weapons at locations near the incidents of arson?				
12	Are rumors spreading in the area?				
13	Are there discussions on social media that may indicate unrest?				
14	Are there any individuals who have recently been arrested/released in connection with the unrest?				
15	Have serious criminals recently been released?				
16	Has the media reported about the situation in the municipality/district?				
17	Is there any other intelligence information?				
	OTHER ASPECTS				
18	Is it school holidays or are the school holidays impending?				
19	Is it the holidays or are holidays impending?				
20	Is the weather situation favorable for outdoor activities?				

The 2016 Brussels terror attacks

Klaudia Tani , Eva Kyriakou, Ólöf Söebech and Elodie Reuge - *Ed. by Florian Lang and Irina Van der Vet*

1. Introduction

On 22 March 2016[2], members of an Islamist terror cell fired three bombs in Brussels. Two explosions took place at Brussels Airport in Zaventem. The third one occurred at Maalbeek metro station, close to the city centre and the European Institutions quarter. On the same day, another bombing was prevented when a fourth bomb was discovered and diffused during the subsequent search of the airport. The Islamic State (IS) has officially claimed responsibility for the attacks.

The first two explosions in this dual-attack occurred shortly before 8:00 am local time at the entrance hall of the airport, while the third bomb detonated roughly an hour later on board of a moving metro, just as it had departed from Maalbeek station. Belgium's Coordinating Unit for Threat Analysis (OCAM[1]) placed the country on Terrorism Threat Level 3, one step below the maximum Level 4, allowing the authorities to issue further alerts and to strengthen security measures throughout the city[2]. The attacks killed 32 people (excluding the attackers) and injured more than 300. The assailants, of whom three were killed during the attacks, were discovered to have close ties to the terrorist group

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1   OCAM : Organe de Coordination pour l'Analyse de la Menace

2   OCAM Threat Levels: "Level 1 or LOW" (no threat); "Level 2 or MEDIUM" (implausible threat); "Level 3" or "GRAVE" or "SERIOUS" (plausible threat); "Level 4 or "VERY SERIOUS" (serious and immanent threat)

Video 1. **The prevention service of Brussels and the Brussels attacks**   CLICK IMAGE TO PLAY ▶

"The political level can play either a supporting role in crisis management, or it can play a divisive role in terms of public communication."

A video interview with Hadelin Feront,
Head of the counter-radicalisation unit at BRAVVO the prevention service of Brussels.

URL: https://youtu.be/J7kTtPh_HvA

responsible for the November 2015 Paris attacks. The arrest of Salah Abdeslam, a suspect in the French attacks, preceded the Brussels attack by four days, triggering a series of police raids targeting the terrorist cell. The Belgian government declared three days of national mourning after the deadliest terrorist attacks in the country's history.

Various actors on local and federal level were involved in the crisis management. These included public authorities and first responders: the Belgian Crisis Centre, the Belgian Police, the Belgian Fire Fighters, the local and federal Government, the Red Cross and the Belgian citizens.

This case study will depict the emergency response to the terrorist attacks in Brussels in March 2016[3]. Firstly, the descriptive analysis of the emergency planning regulation in Belgium and its implementation on 22 March 2016 will focus on the role of the actors involved in the crisis management on different operational levels. Secondly, the study will describe the role and use of social media during and after the crisis as well as the communication, coordination and cooperation among the actors. Finally, the study will conclude with an overview of lessons learnt in managing the March bombings and the subsequent suggested improvements in Belgian Crisis Management System.

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3   For the purpose of the case study several interviews took place in Brussels in autumn 2017. The actors interviewed included: Prof. Dr. Philippe Vandekerckhove, Flemish Red Cross; Mr. Raphaël Schmidt, Brussels Red Cross; Mr. Hadelin Ferront, BRAVVO ASBL; and Mr. Bart Raeymaekers, Director General, Belgian Crisis Centre.

2. The Main Actors

The Royal Decree of February 2006[4] is the legal basis of Belgium's emergency and intervention planning. It defines tasks and describes coordination patterns among relevant authorities and services in the case of emergency.

The emergency planning in Belgium consists of several Emergency and Intervention Plans (Plans d'Urgence et d'Intervention): The General Emergency and Intervention Plan, The Special Emergency and Intervention Plan and monothematic plans such as the Medical Emergency and Intervention Plan (PIM). It is coordinated at three levels, known as communal, provincial and national phases, which define

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4   Royal Decree of February 2006, accessed on 21.11.2017.

Video 2. **The Belgian Crisis Center & the Brussels attacks**   CLICK IMAGE TO PLAY ▶

"I think an important task for the crisis centre is to foster the conditions so that people can collaborate in preparing for something that we hope will never happen."

A video interview with Bart Raeymaekers, *Director General of the Belgian Crisis Center.*

URL: https://youtu.be/QOzA66YkEfk

and collects and analyses information

the involved authorities and allocated resources.

The emergency response, as established in the Royal Decree, includes 5 functional disciplines:

Discipline 1. Search and Rescue: Fire Fighters and Civil Protection Services, tasked with the assessment and elimination of immanent risks as well as the search and rescue of persons in danger.

Discipline 2. Medical, Sanitary and Psycho-Social Care: Medical emergency services, tasked with the provision of medical and psycho-social care, the transportation of victims and the implementation of measures to protect public health.

Discipline 3. Police at the location of the emergency: The Local Police, tasked with maintaining or restoring public order, securing access for other emergency services, organizing the evacuation of persons in danger and pursuing criminal investigations if necessary.

Discipline 4. Logistical Support: Civil Protection Units, Fire Fighters, Public and Private Service Providers, tasked with the provision of material and personnel reinforcement and special equipment required for search and rescue missions as well as the organization of the communication infrastructure for emergency services.

Discipline 5. Information Management: Respective public authorities (the Crisis Centre on the national level), tasked with the diffusion of information and directives to the public and the media during and after crisis.

The response in an emergency situation is organised by sending a team of professionals, acting within a particular discipline, to the scenes.

The Belgian Crisis Centre

The Belgian Crisis Centre is a governmental agency, which is part of the Interior Ministry of Belgium. It is recognised as the centrepiece of public crisis management at the federal (national) level of Belgium[5]. Its mission and mandate are defined along four main assignments[6]:

The Centre monitors the security situation in Belgium on a 24-hour basis. It collects relevant information, analyses the potential implications and informs the corresponding officials, organisations and institutions at the local, provincial and federal level.

The Centre coordinates the preparation of security frameworks for major events, such as European Union summits, and monitors large police operations in order to limit associated risks.
In the case of a crisis, the Centre coordinates the crisis management on the federal level. It assures that the necessary resources, infrastructure and trained personnel are available at all times. Furthermore, it activates the emergency plans at all policy levels and coordinates the cooperation of all relevant emergency services.
The Centre manages the official information policy during crises and this corresponds with Discipline 5 Information management. It assures that public authorities disseminate information transparently, correctly and appropriately. Additionally, it provides practical guidelines for the public.

After the explosions at Zaventem Airport and Maalbeek Metro Station, the Crisis Centre set up an emergency hotline[7] to allow the public to inquire about missing family members and friends. The Crisis Centre's Team responsible for Discipline 5, a

network of communication officers, used Twitter and Facebook to engage with the public. [8] The Crisis Centre used the extensive reach of social media to inform citizens about access to public transport *(see Fig 1)* to prevent panic after the attacks, and to refute rumours and diffuse appropriate guidelines *(see Fig 2)*[9]. The openness and accessibility of social media made it the most suitable platform for informing the public and providing regular updates *(see Fig. 4)*.
The official Twitter and Facebook accounts of the Belgian Crisis Centre circulated messages in three different languages: French and Flemish, as the official Belgian languages, and English to address the large expatriate population of Brussels and beyond.

Fig 1. **Belgian Crisis Centre - Twitter Account**

(Source: Twitter)

In the aftermath of the attacks, the Crisis Centre set up a special page on its website providing relevant information to citizens that were either directly or indirectly affected by the bombings. This included information on the loss of personal belongings, possible damage claims, health and social security issues, legal advice and guidance on other avenues of support.

5   Belgian Crisis Centre, accessed on 03.11.2017
6   Interview with Director General Bert Raeymaekers, SOURCE, October 2017
7   RTBF, accessed on 24.03.2017

8   Interview with Bert Raeymaekers, Director General of the Crisis Centre, SOURCE, October 2017
9   Belgian Crisis Centre Twitter account, 2016, accessed 24.03.2017

The Belgian Crisis Centre has received the "Remarkable Crisis Communication" Prize, awarded by EENA (European Emergency Number Association), for its work during the terrorist attacks in Brussels.

As General Director Bert Raeymaekers explains, the Crisis Centre had established an extensive network of specially trained communication professionals on different policy levels, called Team D5, which support each other in delivering a common, efficient approach during crises.

On 22 March 2016, this network allowed the Crisis Centre to effectively distribute the workload instead of overwhelming the Centre's core information management team. [10]

The Belgian Police

Law enforcement in Belgium is conducted by an integrated police service, consisting of the Federal Police (acting at the national level) and the Local Police (performing in 189 zones). Both forces are independent and work autonomously, however, they closely cooperate in terms of operational support, recruitment, manpower mobility and joint training initiatives[11].

The Federal Police was established in January 2001 and currently has approximately 15 000 staff members. At the functional level, it acts as a specialized police force, carrying out supra-local missions of both uniformed and criminal investigation units. It provides both operational and administrative services and, when necessary, supports missions of the local police[12].

The Local Police force consists of 196 units. Among them, 48 cover the territory of a single city or municipality (uni-communal zones) and 147 cover several cities and/or municipalities (multi-municipal zones). The work of local police fulfils six functions: community policing, intervention, assistance to victims, research and investigation, upholding public order and regulating car traffic.[13] The role of the Local Police during crises is regulated under Discipline 3 of the law on Emergency Planning. On-site police units are tasked with eliminating immanent threats, upholding public order, securing access for emergency services, implementing an evacuation plan and collecting evidence relevant for potential criminal investigations.[14]

On 22 March 2016, the Airport Police at Zaventem and the Brussels Capital Police at Metro Station Maalbeek carried out the tasks according to Discipline 3 under supervision of the Operational Director (Dir-Pol) in charge. In doing so, the Police faced several challenges, including false alarms on suspicious packages and armed policemen mistaken for attackers, which led to the unnecessary dispatch of police forces throughout the city[15]. Adding to this problem, Police emergency hotline operators were severely understaffed – only four people were dealing with the Brussels Airport attacks that day.

In addition to the tasks assigned by Belgium's Emergency and Intervention Plan, the police pursued its criminal investigation operation. Ninety minutes after the bombing at Zaventem the Belgian Police had surrounded an apartment in the Brussels Schaerbeek neighbourhood. Inside, they found materials for the construction of explosives as well as a flag of the so-called Islamic State.[16]

Ahead of and in subsequent response to the Brussels attacks, the Belgian police have carried out a number of raids, detentions, and stop and searches. Most of the police operations have taken place in Molenbeek, the neighbourhood of Brussels that was home or a stopover to many of the Paris and Brussels attackers. These actions have led to the conviction of 43 suspects and charges against 72 others for terrorism-related crimes.

The Belgian Fire Fighters

Following the Civil Protection Reform in 2014, Belgian fire fighters are organized into 34 relief zones (Zones de secours). There are also volunteer groups of fire fighters, totalling 17,000 professionals assigned to 251 regional fire departments. They are managed by the Directorate General of Civil Protection, which is part of the Federal Public Service Interior. Under Belgian crisis management legislation fire fighters are in charge of Discipline 1 Search and Rescue[17] and tasked to assess and eliminate immanent risks, to search and rescue persons in danger and to coordinate all further measures in cooperation with the relevant actors of other disciplines.

According to Cécile Jodogne, the State Secretary for Fire Fighting and Medical Emergency Services in the Brussels Region, 110 fire fighters/paramedics intervened on 22 March 2016 at the two attack sites, with another 100 fire fighters in back up, ready to be deployed.[18] Two fire departments were involved in the operation, SIAMU (Service d'Incendie et d'Aide Médicale Urgente) of the Brussels Region

10 Interview with Bert Raeymaekers, Director General of the Crisis Centre, SOURCE, October 2017
11 OSCE Polis, accessed on 24.03.2017

12 Belgian Local Police, accessed on 17.11.2017
13 Ibid.
14 Royal Decree of February 2006, accessed on 21.11.2017
15 L'Avenir du Net, 11.05.2016, accessed on 30.10.2017

16 New York Times, 26.03.2016, accessed on 01.12.2017
17 Belgian Crisis Centre, accessed on 31.10.2017
18 Cécile Jodogne, accessed on 15.12.2017

at Maalbeek Station and the Zaventem Fire Department at Zaventem Airport. In addition, fire fighters from the surrounding regions of Namur, La Hulpe and Hainaut sent reinforcements to the capital.[19]

The first units arrived at Zaventem Airport at 8.27 am, 15 minutes after the emergency call centre of Louvain received notification. The SIAMU headquarters were notified at 9.12 am, with the first vehicles arriving at 9.33 am at Maalbeek Staion. In total, 7 fire engines and 12 ambulances were dispatched to the Airport, while 34 fire engines and 17 ambulances were deployed to Maalbeek Station.[20]

The Belgian Military

In 2002, a Royal Order issued by Albert II of Belgium merged the three independent Belgian Armed Forces into one unified structure. They are currently organised into four components with approximately 47,000 active members. The four components include: Land, Air, Marine and Medical[21].

A year before the attacks, in 2015, the Belgian Prime Minister Charles Michel reinforced anti-terrorism measures. Accordingly, from 17 January 2015, Belgian military troops have been deployed under the framework of Operation Vigilant Guardian (OVG, also known as Operation Homeland) to support insufficient Police forces.[22] Its objective is to provide enhanced security at strategic and sensitive locations. The operation was modelled after the French Operation Sentinelle[23], in which 10,000 soldiers and an additional 4,700 police officers were deployed to French streets. OVG was reinforced following the November 2015 terror attacks in Paris and the March 2016 attack in Brussels. The

deployment of soldiers to the streets in support of the Federal Police was unprecedented in Belgium's post-war history.

The role of the Belgian Military on the day of the attacks was to support the other emergency services by all means possible. The military dispatched additional forces to Zaventem Airport and Maalbeek Metro Station to assist the police in securing the area. Further, members of the Explosive Device Destruction and Removal Service, including a canine unit, were involved in the search for further explosives.[24] Lieutenant-Colonel Pierre Mergny of the Military Hospital 'Reine Astrid' in Neder-over-Heembeek served as medical director at Zaventem Airport on 22 March 2016 and was responsible for coordinating on-site medical help.[25] After assessing the situation, Mergny and his team organised the transportation of injured persons to nearby hospitals.

The hospital 'Reine Astrid' served as a 'medical buffer zone', with large, fully equipped corridors ready to deal with the sudden arrival of a high number of patients. Depending on the kind and severity of injuries, patients were then transported to other hospitals in the wider area of Brussels or continued to receive treatment at 'Reine Astrid' (e.g. for the treatment of burns).[26]

The military presence in Belgium has been maintained over the past two and a half years, supporting the Federal Police upon demand[27]. The number of military personnel deployed varies according to the latest developments of the security situation in Belgium. From April to November 2016, 1828 soldiers patrolled the streets of several Belgian cities in caution of similar attacks[28].

The Belgian Government

Following several state reforms between 1970 and 2001, the structure of Belgium's federal state in 2017 is complex - resembling a pyramid with three-levels[29]. The top level is represented by the Federal State, the Communities and the Regions. The middle level includes provinces supervised by the top-level structures. The third, bottom level, consists of communes that work directly with the public and that are governed by a top down approach.[30]

Concerning critical situations, under the aegis of the Belgian Crisis Management, the assessment of a critical situation follows a bottom-up approach. Initially, every incident is considered 'local' under Phase 1 and 2 of the Crisis Management until further developments or information initiate activation of the next Phase. The Mayors (Local Phase), Governors (Provincial Phase) and the Interior Minister (Federal Phase) are in charge of the activation.[31] As stipulated in the Royal Decree of 31 January 2003 on Emergency Planning for Crises requiring Coordination on the National Level, terrorist attacks are always considered to require the activation of the federal phase.

On the day of the attacks, all relevant public authorities arrived between 8.20 and 8.50 am at the premises of the Crisis Centre for the first coordination meeting. These included the Interior Minister, the Director General of the Crisis Centre, the Commissioner General of the Federal Police, the Director of the Administrative Police, the Director of OCAM and the Committee President of the Directorate Federal Public Service Interior.

Interior Minister Jan Jambon activated the federal phase at 9.03 am. As foreseen, the activation entailed the establishment of a Crisis Management Cell, led by the Interior Minister. The Crisis Manage-

19 Ibid.
20 Ibid.
21 Belgian Military, accessed on 06.09.2017
22 Belgian Military, 'Operations', accessed on 01.12.2017
23 French Defense Ministry, accessed on 29.11.2017

24 Belgian Military, accessed on 15.12.2017
25 Ibid.
26 Ibid.
27 CNews, R. Mielcarek, 22.03.2016,
28 Belgian Military, accessed on 03.11.2017

29 Belgium.be, accessed on 13.12.2017
30 Ibid.
31 Royal Decree of February 2006, accessed on 21.11.2017

ment Cell ordered the implementation of enhanced security measures throughout Brussels and Belgium in response to the attacks. These measures aimed at securing national and regional airports, major train stations, public transport (in particular the Brussels Metro) and nuclear and radiological sites. In addition, sites with a high concentration of people (e.g. shopping centres and cinemas) also benefited from special protection measures such as: fixed police check points, the erection of concrete blocks at strategic locations and, police patrols around the city that were supported by the military and customs forces. [32]

The Red Cross

The Red Cross in Belgium works with 9200 volunteers and 550 employees[33] to provide a variety of services, including emergency paramedical services, blood donation facilities, first aid education, and psychological assistance to victims. Furthermore, the Red Cross takes part in social campaigns such as the reception of asylum seekers and refugees, for example. It is organised according the country's linguistic communities. The Flemish section of the Red Cross, called Rode Kruis – Vlaanderen (Red Cross Flanders), operates in the Flemish provinces of Antwerp, Limburg, Flemish Brabant, West- and East-Flanders. The Francophone section or Croix-Rouge de Belgique (Belgian Red Cross), covers the Walloon provinces of Namur, Liege, Hainaut, Luxembourg and Walloon Brabant, as well as the Brussels-Capital Region. Still, the Red Cross of the Brussels-Capital region is represented as its own entity in the national umbrella organisation.[34] A small German section of the Red Cross, Belgisches Rotes Kreuz – Deutschsprachige Gemeinschaft, is active in the German-speaking municipalities in East Wallonia.[35]

Mandated by the Belgian government, the Red Cross is included in Discipline 2 Medical, Sanitary and Psycho-Social Emergency Services[36]. In the event of a crisis, the Red Cross, together with the Medical Units of the Fire Department, is tasked with the provision of medical and psycho-social assistance, the assessment of possible health-risks to the wider population and the transport of injured persons to the designated hospitals.

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32 Belgian Crisis Centre, 23.03.2016, accessed on 16.11.2017

33 Belgian Red Cross, accessed 09.11.2017

34 Ibid.
35 Belgian Red Cross – German-speaking community, accessed 18.12.2017
36 Royal Decree of February 2006, accessed 21.11.2017

Video 3. **The Belgian Red Cross & the Brussels attacks**   CLICK IMAGE TO PLAY ▶

"To do this as a volunteer, unpaid and on top of your own responsibilities for your work and your family, that is really something very special"

A video interview with Philippe Vandekerckhove, *CEO of the Belgian Red Cross Flanders.* URL: https://youtu.be/olDOOwh5IIE

This includes psychosocial aspects such as taking care of victims after an emergency situation.

"No one escaped unaffected, and the ones on site will never forget the images of the victims."

A video interview with Raphaël Schmidt,
coordinator of the Belgian Red Cross Brussels.

URL: https://youtu.be/-70p1DsEOGo

After the explosions at Brussels Airport in Zaventem, located in the Flemish Brabant province, units of the Red Cross Flanders were first on-site, providing paramedical care to the wounded and transport to nearby hospitals *(Fig 3)*. It also accommodated 3000 stranded passengers until airlines had arranged alternative transport for them.[37] Additionally, its staff provided psycho-social care for individuals awaiting information on missing persons or to those who had been confronted with the loss of loved ones. Red Cross staff from Brussels cooperated with their Flemish colleagues in supplying back-up staff and material to Zaventem Airport. After news broke of the second attack at Maalbeek Metro Station, the Brussels units diverted from the

Airport and mobilised all resources in the city centre.[38] In order to facilitate medical services at the attack site, the ground floor of the 'Thon residence EU' hotel, a few hundred meters from the station, was transformed into a temporary medical post for nearly 100 injured persons.[39]

Rafaël Schmidt, Emergency Coordinator of the Red Cross Brussels-Capital, emphasized that the cooperation with other emergency services in the field was commendable on 22 March 2016, highlighting the intuitive cooperation of his rescue services with the police at Maalbeek Station in providing access and escort for emergency vehicles.[40] However, one

incident, the unwarranted appeal from a Brussels Hospital for blood donations, muddies this picture. As Philippe Vandekerckhove, CEO of the Red Cross Flanders, explained, the request was entirely unnecessary and had Red Cross staff overburdened with phone calls inquiring about blood donation facilities. The Red Cross was the only NGO formally involved in crisis management following the Brussels Attacks.[41] Belgium has a functioning, professional public administration at its disposal —meaning that NGOs were not required to fill gaps in the provision of services. This does not mean however, that civil society was not involved in the response to the crises. Citizens and local businesses offered food, water and shelter and those with medical skills provided additional first aid.

37 Interview of Philippe Vandekerckhove, CEO of the Red Cross Flanders, SOURCE, October 2017

38 Interview of Rafaël Schmidt, Emergency Coordinator of the Red Cross Brussels, SOURCE, October 2017
39 Belgian Red Cross, accessed 09.01.2018
40 Ibid.

41 Interview of Philippe Vandekerckhove, CEO of the Red Cross Flanders, SOURCE, October 2017

(Source: L.R.)

3. The role and use of Social Media on 22 March 2016

Traditional media, such as newspapers, TV and radio stations, play a significant role during times of crisis. The information and analysis they provide is, in most countries, the main point of reference for the public[42]. The same is true for the terrorist attacks in Brussels, which were extensively covered by all major media outlets.

Social networks have added a new layer to the media environment during crises, challenging the way information is perceived, processed and disseminated. In this regard, traditional media faces a dilemma during fast-paced events such as terrorist attacks. While journalists are expected to verify information beyond reasonable doubt, the current media environment often requires a rapid response to breaking news. In such circumstances, there is a risk that exactness of information becomes neglected, as actual and alleged eyewitnesses publish videos and information on social media well before its content can be verified. For instance, after the attacks in Brussels several media outlets were crit-

icised for sharing and spreading CCTV footage allegedly showing the blasts at Zaventem Airport and Maalbeek Station. It was later revealed that the videos showed bombings at Moscow's Domodedovo Airport and the Minsk Metro in 2011.[43]

Rumours, disinformation and emotions are often key components of online discourses. In times of crisis, this regularly causes distractions for the police as well as confusion and fear among the public. Understanding this, the Belgian authorities asked media outlets to restrict their content following the attacks in Brussels.

As many people who were affected by the terrorist bombings were not able to reach their homes or hotels due to the security measures in place, many citizens offered help via social media. Under the hashtag 'open doors', countless messages were posted online, offering a safe place to stay *(Fig 4)*.[44]

Fig 4. **Solidarity messages on 22 March 2016**

(Source: RTL)

Fig 5. **Facebook Safety Check. Brussels Attacks, 22 March 2016**

(Source: Facebook)

An additional feature of social media that is used during crises is Facebook's 'safety check', which provides its users with a quick means to notify friends and family of personal status after a critical event. Since its introduction in 2014[45], 'safety check' has been activated and used in several natural and man-made disasters. However, during the Brussels attacks Facebook was criticized for not deploying the tool quickly enough.[46] Contacted by French newspaper Le Monde, the company described the difficulties associated with the activation of 'safety check', stating that it first has to assess the magnitude of the event and then define the right moment of activation as people who mark themselves as 'safe' may be affected later on.[47]

42   UNESCO, Terrorism and the Media, A Handbook for Journalists, 2017

43   BBC, 22.03.2016, accessed on 01.12.2017
44   RTL, 22.03.2016, accessed on 09.11.2017

45   Facebook Newsroom, accessed on 29.11.2017
46   The Independent, 22.03.2016, accessed 01.12.2017
47   SLATE, 22.03.2016, accessed on 20.11.2017

4. Lessons learnt

In the hours after the attack, the emergency relief specialists encountered several issues that negatively impacted the course of the operation. Both the capacity of the GSM and the A.S.T.R.I.D network used for communication of the personnel proved to be insufficient. The A.S.T.R.I.D network was introduced in 1998 and is managed, maintained and operated by a public mandated company. It covers radio communication, paging and dispatching of all emergency services in Belgium and provides associated control rooms.[48]

The saturation and consequent collapse of the GSM and A.S.T.R.I.D networks had a highly detrimental effect on the communication among law enforcement, emergency services and hospitals. For instance, Lieutenant-Colonel Eric Mergny, who coordinated the medical response at Brussels Airport, said that the failure of A.S.T.R.I.D. rendered it impossible to assess whether nearby hospitals had the capacity to take in patients[49]. While members of the Red Cross Flanders were, at least partially, able to evade the problem due to their own analogue communication system[50], their colleagues in Brussels, together with other first responders including the police, had to resort to other means of communication, such as Social Media, Whatsapp Messenger and Emails.[51] The chaotic use of these communication channels is exemplified by an email sent to railway police chief Jo Decuyper[52] at 9.07 am ordering the complete closure and evacuation of the subway network, which was only read the following day. Consequently, the General Commis-

sioner of the Federal Police, Catherine De Bolles, requested an investigation into the reasons for the malfunction of the A.S.T.R.I.D. system.[53]

The failure of the communication infrastructure was also highlighted in the Final Report on Emergency Planning and Crisis Management. Next to a substantial increase in the capacity of the A.S.T.R.I.D and GSM networks, the authors also call for more training in the use of A.S.T.R.I.D and better communication between public authorities and the service provider.

In an effort to further improve communication between actors of the five disciplines, the Belgian Crisis Centre is in the process of implementing the Incident & Crisis Management System.[54] This digital platform, for which several functions are still under development, is intended to consolidate the communication and cooperation among all emergency services.
Its features include:
• A tool for the collaborative creation of documents and logbooks
• Real-time monitoring, communication and reporting tools
• Digital cartography for the visualization, combination and interpretation of geographical data
• Built-in document editors for the creation of emergency plans
• Data management tools for centralized databases on assets, objects and persons
• An interactive exercise calendar

In contrast to the communication among emergency services, the information management and communication towards the public functioned properly. Nevertheless, in light of new challenges, the Crisis Centre is working on further improvements to its information policy. Most notably, the Centre

is in the process of fully operationalizing a new information application, called 'BE-Alert'[55], to which all citizens can subscribe. This system is currently able to issue geographically precise alerts via fixed lines, text messages, email and social media. For example, in the case of a fire at a shopping mall, the system would be able to issue phone calls and send messages, ordering people in the respective street to evacuate, home owners to keep their windows closed and people in the wider surroundings to avoid the area. BE-Alert is under continuous development and is envisioned to feature more functions, such as the tracking of people in life-threatening situations via their smartphones.

Further improvements to the national crisis management were implemented at the legislative level. The absence of an Emergency and Intervention Plan modelled specifically on potential terrorist attacks was highlighted by the authors of the final report as the most severe shortfall of the relevant legislation. In addition, the operational emergency planning of Zaventem Airport did not include a provision for a terrorist attack either. [56]
The Royal Decree on Emergency Planning regarding terrorist hostage taking and terrorist attacks remedies the lack of legislation. Introduced in May 2016 the Royal Decree calls for the implementation of a General Emergency Plan on Terrorism and corresponding mono-disciplinary plans (e.g. the Medical Intervention Plan). This General Emergency Plan on Terrorism remains confidential as to avoid potential exploitation.[57]

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48 A.S.T.R.I.D, accessed on 09.12.2017
49 7/7 Online, 09.05.2016, accessed on 24.03.2017
50 Interview with Philippe Vandekerckhove, CEO of the Red Cross Flanders, SOURCE, October 2017
51 Interview with Rafaël Schmidt, Emergency Coordinator of the Red Cross Brussels, SOURCE, October 2017
52 Belgian Federal Police, accessed on 24.03.2017

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53 De Morgen Online, 26.03.2016, accessed on 09.12.2017
54 ICM System Website, accessed on 09.12.2017

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55 BE-Alert Website, accessed on 09.12.2017
56 W. Bruggeman, D. Van Daele, Rapport final sur la planification d'urgence et la gestion de crise, 04.07.2016, accessed on 09.12.2017
57 Moniteure Belge, accessed 09.12.2017

1. Case Study Quiz:

1 After the terrorist bombings in Brussels, on which Threat Level was the country placed by Belgium's Coordinating Unit for Threat Analysis (OCAM)?

   a. Level 2

   b. Level 3

   c. Level 4

2 What does Threat Level 3 signify?

   a. Medium: when it appears that the threat to the person, group, or event being analysed is implausible

   b. Grave or Serious: when it appears that the threat to the person, group or event being analysed is plausible

   c. Very Serious: when it appears that the threat to the person, group or event being analysed is serious or imminent

3 The Belgian Crisis Centre responded to the Brussels terrorist attacks by setting up an emergency hotline. What was the objective of this activity?

   a. To allow the citizens to inquire about relatives and friends that are missing

   b. To allow citizens to bring forward legal claims for compensation

   c. To allow citizens to give information about the investigation on the attacks

4 Besides the Website of the Crisis Centre, what were the main communication channels used after the attacks?

   a. Social media (Facebook, Twitter)

   b. TV

   c. Radios

5 Why is it difficult for Facebook to define the right moment to activate its 'safety check'?

   a. The system is not fully operational yet

   b. People who mark themselves as 'safe' might be affected later on

   c. It is difficult for Facebook staff to obtain information on the development of the crisis

6 Which government official is designated to lead the Crisis Management Cell?

   a. The Interior Minister

   b. The Prime Minister

   c. The Defense Minister

7 What happened with A.S.T.R.I.D during the hours following the attacks?

   a. The system was saturated

   b. It delivered messages to the wrong person

   c. People did not know how to use it

8 What are the four components of the Belgian Military?

   a. Land, Air, Marine and Research

   b. Land, Air, Marine and Medical

   c. Land, Air, Marine and Education

9 Since when do Belgian troops support the police forces under 'Operation Vigilant Guardian'?

   a. Since 17 January 2015

   b. Since 13 November 2015

   c. Since 11 September 2001

10 What is the main function of the information application BE-Alert?

   a. It reminds users to be vigilant in public spaces

   b. It connects users directly to emergency services

   c. It issues geographically precise alerts to users in the case of emergency

2. Role Playing

Scenario:

On the 16th of November 2018, Belgium is playing Mexico at the King Baudouin Stadium.

At the same time, Brussels hosts a EU Summit in the European Quarter to which all EU head of states are expected.
Both events require the preparation and implementation of specific security measures.

Distribution of tasks:

12 students will be divided into six groups *(two students per group).*

They will represent the main actors described in the case study:

• The Belgian Crisis Centre
• The Red Cross
• The Belgian Police
• The Belgian Fire Department
• The Belgian Government
• The Belgian Military

Based on their knowledge, their experience and the insights gained from the case study, the students are asked to develop an organization plan, containing appropriate security measures that cover both events.

Västmanland 2014 forest fire

Ann-Sofie Stenérus Dover & Malin Östensson

1. Introduction

In August 2014, the largest forest fire in Sweden in modern times took place in the county of Västmanland, in Central Sweden. The fire was preceded by a very hot and dry period. The fire hazard had been classified at the highest risk level and a fire ban issued. Multiple organizations were involved in the crisis management and up to two thousand people worked around the clock to fight the fire. Due to the extreme weather conditions, the fire evolved rapidly and the situation presented a wide array of challenges for all parties involved. On the twelfth day of the fire, the incident commander declared that the firefighting operation was concluded. Nevertheless, final extinction of the fire and collection of used equipment, as well as damage assessment, continued throughout fall.

The fire was caused by a spark from a tree harvester machine at a deforestation area in the Surahammar municipality. The harvester operator tried to extinguish the fire, but failed, and alerted the emergency services at 1:29 pm. Due to a misunderstanding about the exact position of the fire and inaccurate GPS maps, there was confusion about how to reach the scene, and the first fire and rescue unit arrived at about 2:30 pm, a delay of half an hour. At this point, the fire area had expanded to approximately 16 ha.

The fire soon expanded into Sala municipality; two municipalities were now affected. The fire would eventually affect four different municipalities be-

Facts		
Duration of the operation:	August 31 – September 11, 2014	
Fire area:	More than 13,000 hectares, approximately 28,000 football fields	
Operation staff *(daily average)*:	120 firefighters 100 police officers 450 from the Swedish Armed Forces 150 volunteers from different organizations	
Evacuated:	About 1,000 people and 1,700 domestic cattle, another 6,000 people were under the threat of evacuation	
Casualties:	1 dead, 1 severely burned, 1 police officer badly injured after being hit by a vehicle at a checkpoint	
Resources:	500-700 km fire hose 14 helicopters flew 320 hours Fixed-wing aircraft from Italy and France flew 1,533 circuits over the fire area, dumping 10 million litres of water	
Estimated costs:	Total cost of the emergency operation and damages was estimated to be at least SEK 1 billion (EUR 100 million)	

*(Source: The County Administrative Board, 2014)*

fore it was declared under control; see *Fig. 1*. On the second day, the fire expanded towards the north-east (see Fig. 2 for a map of the progress of the fire). A change in the wind direction, on the third day, resulted in an expansion to the north. The fire and rescue units continuously established demarcation lines, but were repeatedly pushed back. Firefighters became exhausted as resources and reinforcements from all over Sweden started to arrive. On the fourth day, the fire was still developing rapidly, now towards the north-west. A controlled fire in front of the main fire was started, but it proved to have little impact. In the evening, winds were becoming increasingly stronger, causing further, sometimes rather chaotic, withdrawals.

The fifth day would later on be referred to as Black Monday. Due to strong winds and continued hot and dry weather, the fire area increased fivefold during the day, from about 2,800 ha, in the morning, to about 13,800 ha, in the evening. The extensive smoke development and fallen trees blocking the roads made work both difficult and hazardous for the firefighters. It was estimated that the fire spread at a speed of up to 5 km/h (up to 80 m/min1), and on one occasion the fire jumped over smaller lakes, a distance of almost 2 km.

Two forestry workers were caught in the fire; one died, tragically, while the other suffered severe burns.

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1   MSB 2015
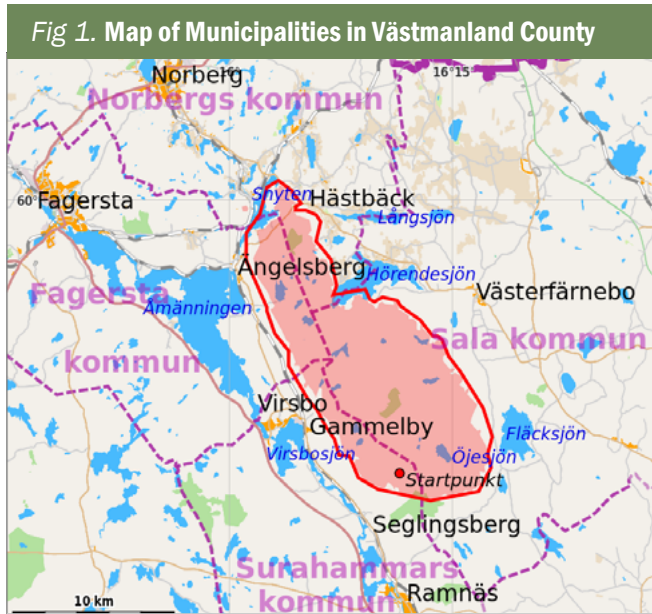
About 500 people, from three different villages, were evacuated at short notice. Further evacuations were considered, but never executed, as the progress of the fire slowed significantly in the evening, due to decreased wind speed and increased air humidity. A great desire to help those affected by the fire was shown by civil society. Donations, ranging from clothes and folding beds to hygiene products and other necessities, literally started pouring in.

At the request of the fire and rescue services involved, the Västmanland County Administrative Board took over responsibility of the firefighting operation on the sixth day of the fire. In doing so, crisis management became a national issue, rather than a municipal one. Weather conditions now became increasingly more favourable, with decreasing winds and increased humidity. This, together with the launch of a water-bombing campaign, including four fixed-wing aircraft from Italy and France, on the seventh day, allowed the operation to be less reactive and, instead, focus on extinguishing the fire and establishing demarcation lines.

On the ninth day, the fires above ground were almost extinguished and, two days afterwards, the water-bombing campaign with the use of the fixed-wing aircraft ended. On August 11, after almost two more weeks, the Incident Commander declared that the fire was under control. It was not until September 11, however, that the Incident Commander formally declared that the firefighting operation was concluded.

During the entire firefighting operation, the event received great interest from national and international media. During the most intense phases, 30-40 journalists covered the fire and in total almost 10,000 articles and radio and television reports were issued. The interest in the fire did not cease, however, with its extinguishing. Instead, attention was paid to how the crisis had actually been managed. From a crisis management perspective, there were many things that could have been done differently to improve coordination and situational awareness, for example.

Organizations involved in, or affected by, the firefighting operation, as well as researchers, have since investigated the incident and described the crisis management and lessons learned.

The following chapters build on information in those reports and from interviews with people directly involved in the firefighting operation.
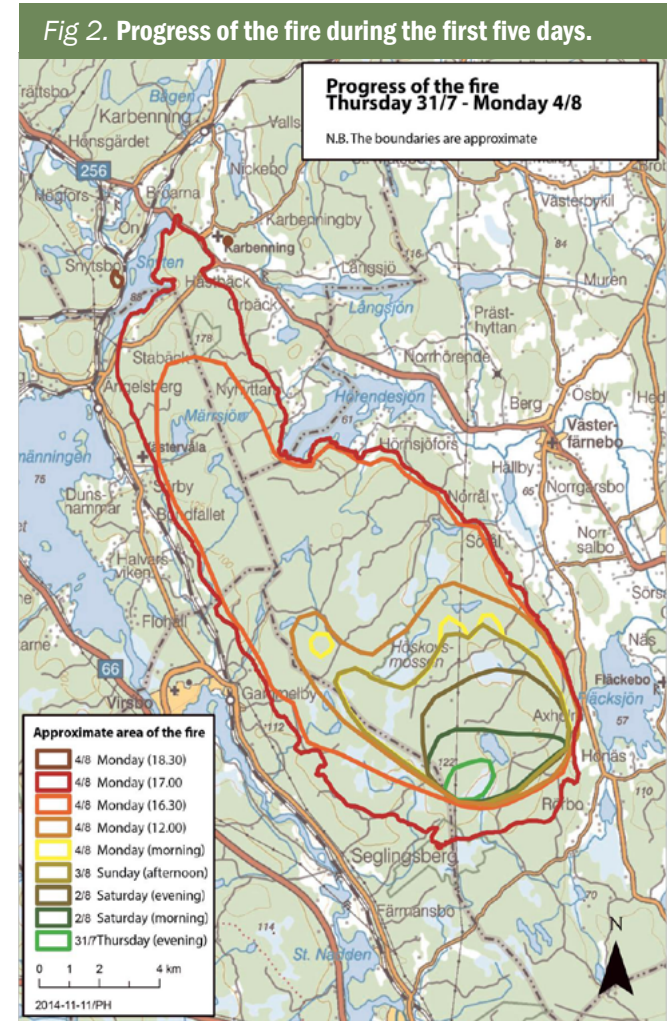
"The timber was powder dry, so bizarrely enough, we began to water the ground in front of our house and our house gables."

A video interview with Maria Hugosson Bygge, *resident and forest owner in Västmanland forest*

URL: https://youtu.be/vwXtA2qBMG8

It had been brilliant sunshine and no rain for many weeks, of course.

2. Main actors

2.1 Emergency services and the police

Due to the fact that the fire spread over four different municipalities (Surahammar, Sala, Fagersta, and Norberg), three different fire and rescue services were eventually responsible for fighting the fire. Personnel from those fire and rescue services were involved in both firefighting and the evacuation of people and domestic cattle.

Personnel from a number of other fire and rescue services also participated in support of the operation. Local police facilitated evacuations and maintained checkpoints, to prevent people from entering the fire area.

2.2 Governmental bodies

The *County Administrative Board* is a government authority with coordination responsibility in the county. It acts as a link between the municipal authorities and the national government, parliament, and central authorities. On the sixth day of the fire, the Västmanland County Administrative Board executed its legal right to take charge of the firefighting operation, in order to improve coordination.

Four of Västmanland county's *municipalities* were directly affected by the fire. Swedish municipalities can be described as cornerstones when it comes to crisis management, as they have a geographic responsibility. This means that they are responsible for prioritization and coordination of intersectoral actions within their geographic areas in case of an emergency. The municipalities are for example responsible for coordinating information to the public and initiating the development of an overview of the crisis. Emergency services are municipal bodies and are therefore responsible for managing all events within their municipalities' geographical areas.

The *Swedish Armed Forces* are obliged by law to provide support in case of emergencies, given the availability of suitable resources, and that the provision of support does not impede its normal operation. The Armed Forces, including the Swedish Home Guard, played a major role in the firefighting operation, providing helicopters and other vehicles and equipment, and approximately 1,500 employees in total.

The *Swedish Civil Contingencies Agency (MSB)* is responsible for issues concerning civil protection, public safety, emergency management, and civil defence. During crises, MSB has the task of ensuring that the actors concerned can efficiently use both national resources as well as international reinforcement resources. In the case of the forest fire, MSB provided resources, expertise and international support regarding requisitions from the emergency services. MSB also assisted the Västmanland County Administrative Board with legal support.

Other governmental bodies were also involved in the firefighting operation. For example, the *Swedish Transport Administration*, the agency responsible for building, operating and maintaining public roads and railways, supported the police in maintaining checkpoints, transported equipment and personnel in tracked vehicles, and communicated road network-related information. *Lantmäteriet*, an agency that provides information on Swedish geography and property, supported the operation with printed maps. *Svenska Kraftnät*, a state-owned electricity transmission system operator, contributed support with auxiliary power units, among other things. *The Swedish Coast Guard* dispatched its fixed-wing aircraft, equipped with aerial and infrared imaging capabilities, to gather data on the progress of the fire.

2.3 Non-governmental organizations

About 100 members of the *Swedish Home Guard* (a military reserve force of the Swedish Armed Forces) participated in the operation, laying down fire hoses in the forest to support the fire fighters, cutting down trees, and driving trucks, among other tasks. *Frivilliga Automobilkåren*, the voluntary automobile corps, is trained by the Swedish electricity transmission system operator to assist in supplying emergency power in case of accidents and crises.

During the firefighting operation, they operated auxiliary power units, supplying fire engines and water pumps with electricity.

About 150 people from the *Volunteer Resource Groups (FRG)* worked around the clock on tasks such as supplying emergency services staff with food and water, keeping guard, taking care of donated goods, channelling spontaneous volunteers, and giving administrative support. FRG is a concept that has been developed to be a part of the municipal crisis management system; its groups are activated by the municipalities in case of emergency. When FRG's members are called in, they are insured by the municipalities and paid the same salary as part-time firefighters.

The Swedish Red Cross is a part of the Swedish emergency management system. The organization is a complement to authorities, such as the Swedish Civil Contingencies Agency and the Armed Forces, and acts in collaboration with them in emergencies, both nationally and locally. Red Cross volunteers offer a variety of support in emergencies, ranging from medical and psychosocial to practical support.

2.4 International support

On the fourth day of the firefighting operation, due to the extent of the forest fire and its rapid development, the Incident Commander requested the assistance of fixed-wing aircraft with water-bombing capability. As Sweden has no such capability, the Swedish Civil Contingencies Agency dispatched the request to the *Emergency Response Coordination Centre (ERCC)*. ERCC operates within the European Commission's Humanitarian Aid and Civil Protection department; it coordinates disaster response both within and outside Europe.[2] Several countries, including Italy and, later on, France, offered

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2 Emergency Response Coordination Center

resources, and a water-bombing campaign using fixed-wing aircraft was launched the day following the request.

2.5 Civil society engagement

Civil society also demonstrated a great desire to help and contribute during the crisis. Those citizens who wanted to assist were not only those directly affected by the fire, such as property and forest owners in the area, but also those not directly affected.

3. Crisis management during the firefighting operation

As in the previous chapter, the information in this and the following chapters builds on material from reports (by organizations involved in, or affected by, the firefighting operation, as well as researchers) and interviews with people directly involved in the firefighting operation.

3.1 Crisis management at local level

Emergency services

Since the fire had started in Surahammar municipality, the emergency services there were the first to respond. A misunderstanding about the exact position, and inaccurate GPS-maps, resulted in confusion about how to reach the fire area; the first fire and rescue unit was delayed by half an hour. It did not take long before the fire had also spread into Sala municipality, which meant that now the emergency services from that municipality were also responding to the fire. This then meant that, initially, two separate incident commanders from two different fire and rescue services were in charge of the operation. A joint incident commander was established after about three hours. Although the incident commander coordinated the allocation of resources and assets, the fire and rescue services continued to plan and execute their operations quite independently of each other. At this point, the general impression was that the fire was under control, although the perception of the extent of the fire varied among the deployed fire and rescue units.

In general, the firefighters were used to extinguishing forest fires, as smaller ones occur quite regularly. They followed existing textbooks and recommendations on how to fight fires, such as working with establishing demarcation lines to prevent the fire from spreading. As one of the fire chiefs involved in the operation recalled, "There was a common belief among us firefighters that we knew how to extinguish forest fires; we had done that for ages." This fire, however, did prove to be something different from what the firefighters were used to.

A helicopter from the Swedish Armed Forces was flying near the fire area and stopped to offer support. The incident commander, however, did not know at this point how to request resources from the Armed Forces, so the helicopter headed back to the base. Helicopter support was requested later on that evening, but by then support was only available at approximately 9 am the following day. Support was also requested from private helicopter companies, to provide aerial firefighting, and the first civilian helicopter arrived around 9 pm.

During the second day of the fire, the deployed fire and rescue units continued to work at a high level of autonomy, focusing on creating and maintaining demarcation lines. The on-duty officer at the Västmanland County Administrative Board offered the incident commander countrywide, interagency coordination, which the incident commander deemed not necessary and therefore declined. This support was offered again on several occasions during the next couple of days, but repeatedly declined.
During the afternoon, the incident commander contacted the Civil Contingencies Agency and submitted a requisition for resources, such as water hoses and high-pressure fire pumps, from the national reinforcement depots. Further requisitions from the agency were sent during the following days.

There were an increasing number of helicopters in the area, which on the third day created a problem, as there was no Air Traffic Control function in place. Also, the helicopters used different communication solutions; civilian helicopters primarily used cellphones, while military helicopters communicated in the form of text messages. Altogether, this resulted in the helicopter crews receiving insufficient feedback about the impact of their water-bombing activities. A civilian helicopter was later assigned to act as Air Traffic Control, which led to better coordination. Also, coordination with the police was initiated, in order to localize area residents, in case they would have to be evacuated with short notice. By now, nine different fire and rescue officers had acted as incident commanders for the firefighting operation. To achieve continuity, it was decided that a high-ranking officer should act as incident commander for the entire operation. An on-scene support team was also established in Ramnäs, a village in Surahammar municipality. Regular meetings were introduced; a somewhat better understanding of the fire area was achieved during the day. Coordination between the support team in Ramnäs and the support teams for the two fire and rescue services involved, as well as with the air and ground operations, was still limited, however. The incident commander operated in close proximity to the firefighting operation, as is common for fire and rescue officers. At this point, the incident commander considered that the fire, apart from its north-west corner, was under control.

On the fourth day, the incident commander requested the assistance of fixed-wing aircraft with water-bombing capability. The Swedish Civil Contingencies Agency dispatched this request to the Emergency Response Coordination Centre of the European Union, since Sweden does not have such capabilities. This was the first time that Sweden has asked for international support in fighting a fire. By midnight, the incident commander accepted the initial offer of two planes from Italy.

On the fire's intensive, fifth day, the Black Monday, the emergency services decided that people from three different villages had to be evacuated. This affected about 500 people, and was done on rather short notice, due to the high fire propagation speed. Additional evacuations were considered, but never executed, as the propagation speed slowed considerably during the evening. The evacuations widened the scope of the operation. The operation had now evolved from being just a firefighting operation, to a multifaceted emergency response. Since fire and rescue units were ordered to abort their firefighting efforts, and to move instead to villages in danger, the resources available for actual firefighting were reduced.

The rapid development of the fire placed the on-scene command support team under great pressure, as rapid reactions were needed continuously. The number of persons working in the command support team in Ramnäs increased by the hour. There was also frequent rotation of the fire and rescue officers in the on-scene command support team, leading to information gaps. The entire operation scaled up significantly during that day, and major requests for resources were made, nationwide. In the evening, it became clear to the fire and rescue services involved that their resources were insufficient and that they needed support from the County Administrative Board.

Municipalities

During the first couple of days, the municipalities were not involved in the emergency management in any way. There was no contact between the municipalities and the County Administrative Board at this stage. On the third day, some contacts were made between the incident commander and representatives from Sala and Surahammar municipalities about the status and progress of the fire.

All municipalities affected by the fire participated in the first coordination conference, organized by the County Administrative Board on the fourth day. During that day, several of the municipalities decided to activate their crisis organizations, as well as POSOM-groups (which provide psychological and social support to those in need). The municipalities also collected information about the fire on their respective web-pages, as people worried about the fire were calling.

Over the next couple of days, the municipalities directly affected by the fire opened crisis support centers, where the public could turn for information and support, such as in helping with finding alternative accommodation for those evacuated. The municipalities also activated their Volunteer Resource Groups (FRG). The fire directly affected four of the county´s municipalities. The county´s other municipalities assisted with resources such as emergency services, FRGs (volunteer resource groups), communicators, and other staff.

3.2 Crisis management at state level

The Västmanland County Administrative Board

The Duty Officer at the Västmanland Administrative Board was made aware of the fire a few hours after it had started. During the next couple of days, the Duty Officer contacted the incident commander several times, to ask whether the firefighting operation needed support from the Administrative Board in the form of countrywide inter-agency coordination. The incident commander repeatedly declined this offer. The County Administrative Board was concerned, however, about the rapid development of the fire, so that on the fourth day it initiated its own emergency operations command staff in Västerås, the county seat.

The emergency operations command staff started gathering information from the incident commander on the status of the firefighting operation, and informed the Swedish Civil Contingencies Agency. In the afternoon, the incident commander, for the first time, asked for support from the Administrative Board. In the evening that same day, the Administrative Board organized countrywide inter-agency coordination among the local, regional, and national actors involved in the operation (including actors such as the Swedish Armed Forces, municipalities, national radio, and the Swedish Meteorological and Hydrological Institute). This resulted in a more widely-shared understanding of the situation at hand.

On the fifth day, the Black Monday, the County Administrative Board arranged three conferences with the organizations and authorities involved. The conference dealt with issues such as resource coordination, information, and handling of international support. The first press gathering was organized around lunchtime. In the evening, all three fire and rescue services involved agreed that their resources were insufficient; they asked the County Administrative Board to execute its legal right to take charge of the operation. The County Administrative Board consulted the Swedish Civil Contingencies Board about legal issues regarding the takeover of responsibilities.

In the morning of the sixth day, the Västmanland County Administrative Board took charge of the firefighting operation. The fourteenth incident commander, fire chief Lars-Göran Uddholm, was assigned. Up until now, the incident commanders had continuously succeeded one another, which had resulted in communication gaps. To prevent this from continuing, Lars-Göran Uddholm specifically asked not to be replaced for the remainder of the operation.

"In connection with this fire, it was said that the textbooks will have to be re-written."

one easily loses information when one has a shift in the leadership.

A video interview with Lars Göran Uddholm, *fire chief incident commander during the Västmanland forest fire.*

URL: https://youtu.be/Zt5oj2OrUl0

Lars-Göran Uddholm was an experienced fire chief; he belonged, however, to a fire and rescue service in Stockholm, which meant that he had no previous experience of working with the fire and rescue services involved in the operation, nor any extensive geographical knowledge of the area.

An increasing number of organizations and volunteers had become involved in the operation, which meant that coordination was also increasingly challenging. Together with people from the fire and rescue services, the County Administrative Board, the municipalities, and the police, Lars-Göran Uddholm discussed the design of a multi-agency emergency operations center (EOC). The EOC was established at a conference center in Ramnäs, over which Lars-Göran Uddholm had the overall responsibility, while the deputy incident commander acted as head of the EOC (see *Fig. 3*). The structure of the EOC was not based on any previous planning, but rather, as Lars-Göran Uddholm expressed, on the experience that he and others had of earlier large-scale emergency operations, such as the Asian tsunami catastrophe, in 2004. The structure of the EOC developed over time, based on the needs that arose, until eventually there were about 80 people working in the EOC. Its final structure is depicted in *Fig. 4*.

As the fire gradually became more under control and was progressively extinguished, the EOC was dismantled, step by step. To handle the more long-term issues regarding the fire, the County Governor decided to establish a specific coordination body, in mid-August. This body dealt with issues such as economic compensation, support to municipalities and forest owners, coordination of authorities, and the organizing of security guards for preventing "fire tourists" from entering the area. The work was considered as completed in December 2014. In May 2015, ten months after the fire, the County Administrative Board decided that entry into the area affected by the fire would be allowed once again.

The Swedish Civil Contingencies Agency (MSB)

The Duty Officer at the Swedish Civil Contingencies Agency noticed reports of the fire on the first day. It was not until the second day, however, that the agency became involved in the operation, when the incident commander made the first request to use one of the agency's forest fire resource depots

Fig 3. The initial structure of the Emergency Operations Center (EOC)
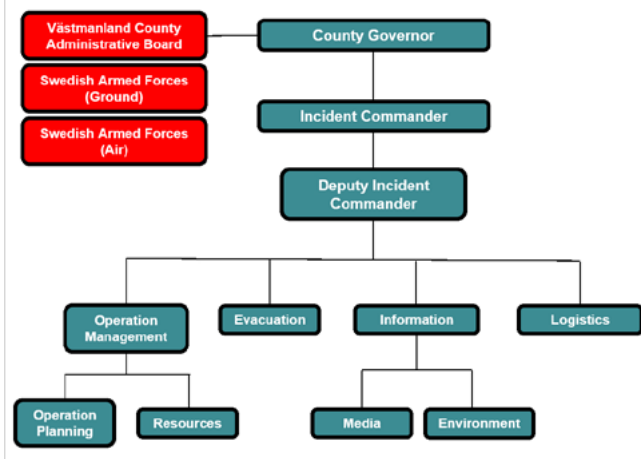
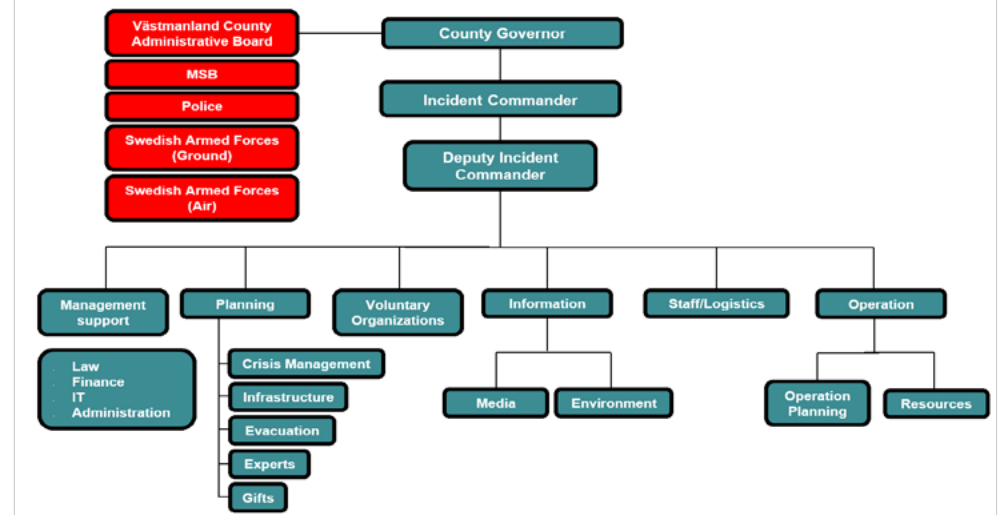*(Source: Västmanland County Administrative Board)*

(which include water hoses, water pumps, chain saws, and other firefighting equipment). The agency maintains 14 such depots all over the country, to use when the emergency services' resources prove to be insufficient in fighting forest fires. The agency also performed an impact assessment of the area's critical infrastructure, and contacted Svenska Kraftnät, the authority responsible for the Swedish transmission system, concerning a power line running through the area.

During the following days, the agency delivered the equipment from more depots, upon request. On the third day, the incident commander asked the agency's duty officer to investigate the possibility of receiving international support from the EU, regarding fixed-wing aircraft with water-bombing capabilities. Such a request had never been made before. The agency prepared the documents, in dialogue with the Ministry of Defence, and a formal request to the Emergency Response Coordination Centre (ERCC) was made on the evening of the third day. By midnight, the incident commander could already accept the first offer, of two planes from Italy.

From day 1 to 3, the agency kept a rather low profile in the operation; it supported the firefighting operation with resource depots. In connection with the requisition and the international support, and in the preparations for the reception of the planes, however, the agency assumed a more active role. Although the agency decided that it would not activate its emergency organization at this stage, it did send two representatives to the command staff in Ramnäs to act as a link between the agency and the incident commander. Their task was to facilitate communication and coordination regarding resources offered by different actors. Over the next couple of days, the incident commander requested large amounts of material and personnel and, on the sixth day, the agency decided to establish a special organization for the handling of fire-related work.

As of the sixth day, the agency arranged national coordination conferences, dedicated to information coordination among national authorities and other organizations affected by the fire and the firefighting operation. These coordination conferences were henceforth arranged once a day, up until the incident commander assessed the fire to be under control, on August 11, and thereafter when needed. The purpose of the conferences was to coordinate information for dissemination to media and the public about the fire area, evacuations, water-bombing, etc. The agency worked actively to collect and update Q&As, which were then disseminated to the public via the web-page *www.*

Fig 4. The structure of EOC that evolved over time due to the growing number of organizations involved and the need for coordination

(Source: Västmanland County Administrative Board)

krisinformation.se (a web-page dedicated to crisis information, and run by the agency), social media, and the telephone number, 113-13 (a nationwide number for information on accidents and emergencies, introduced in 2013).

In order to handle the massive need for support regarding communication, employees from other parts of the agency, as well as voluntary crisis communicators, were called in to work. In total, about 70 staff members from the agency were involved.

The Swedish Armed Forces, including the Swedish Home Guard

The Swedish Armed Forces became involved in the firefighting operation from the second day, when it provided helicopter support. Further helicopter support and tracked vehicles were requested in the days that followed. As the fire escalated, the Armed Forces played an increasing role and contributed both personnel and material resources. On the third day of the fire, personnel, mainly from the Swedish Home Guard, arrived to support the firefighting operation. By the sixth day, the number of personnel continuously present in the area had grown to somewhere between 150-200.

On the fourth day, the authority activated its emergency organization. The first coordination conference, organized by the County Administrative Board, was also held that day. At the conference, the Armed Forces provided a list of resources that could be requested. However, the officers present did not receive any response to their offer.

3.3 Support from other organizations and civil society

Swedish Red Cross

When it became clear that the fire was something different from usual forest fires, the Swedish Red Cross started analyzing how the organization could contribute. On the sixth day of the firefighting operation, the Swedish Red Cross positioned an official at the Emergency Operations Center, near the fire area, to facilitate communication and channel resources.

At the request of the Västmanland County Administrative Board, the Swedish Red Cross managed the central warehouse where the majority of the goods and clothes donated for distribution to those affected by the fire was collected and stored. The Swedish Red Cross had previous experience of managing this kind of civil society support in cases of crisis. Among other things, they knew that it was important not to accept every gift offered, but to be rather strict about what was requested. Fifteen Red Cross volunteers who had previous experience of the organization's second-hand activities were assigned the task of organizing the warehouse. Municipal FRGs, not the Red Cross, were formally responsible for the warehouse. Also, the Red Cross

Video 3. **Västmanland Forest Fire 2014**

CLICK IMAGE TO PLAY ▶

"There are always people who are drawn to an event to help out."

A video interview with Jonas Prawitz, *manager at the Swedish Red Cross*

URL: https://youtu.be/Z-8MagGE87M

accepted the task of managing the warehouse under the condition that it would not be held responsible for dismantling the warehouse. Consequently, on August 19, when the fire was under control, the Red Cross left the warehouse.

Apart from managing the warehouse, the Red Cross also organized ten venues where crisis counselling was offered; it also attended to small burns and debriefed County Board officials once the most acute phases of the fire had passed.

Civil society

The support from civil society ranged from donations of clothes and material to evacuees in need of assistance, to the distribution of fuel for fire engines and of food to firefighters. About 200 property- and forest-owners worked around the clock, using chain saws, harvesters, and excavators, to clear firebreaks. They also helped to water the ground, using everything ranging from water pitchers to manure-spreaders. In addition, several hundred civilians contacted the FRGs on site, or on Sala municipality's web-page, to sign up as volunteers. Hundreds of people also signed up on lists, via a Facebook group, offering support with for example animal transportation and accommodation for evacuees. These lists were then sent to one of the FRGs.

4. Lessons learnt

4.1 Emergency Services

Organization, communication and coordination

Early on, as the fire spread across two municipalities, there were two different fire and rescue services responsible for fighting the fire from different directions. Although a common incident commander was assigned after a couple of hours, the fire and rescue services continued to plan and execute their operations quite independently of each other. For example, there was no joint effort to pool resources and fight the fire from the direction where the propagation speed, due to the wind direction, was highest. When it comes to forest fires, it is important to get them under control and extinguish them as soon as possible to prevent them from spreading. In this case, the lack of a joint effort in the early stages might have impaired the chance to successfully extinguish the fire early on.

The fire and rescue services have plans in readiness for the establishment of a special internal organization during crisis. However, since the fire began during summer holidays, staffing levels were rather low, and the ones who were working were all in the woods fighting the fire. The organization, in other words, was too understaffed to maintain certain functions. For example, there was no structure for keeping protocols, while notes were taken on loose paper.

This firefighting operation demanded a much larger amount of coordination and interaction than what a typical fire would require. As the operation grew, there was great demand for cross-organizational management. However, few individuals in Sweden had participated in a joint effort of this magnitude

prior to this fire, especially one that over-arched multiple jurisdictions.

Problems with ICT and communications were reported throughout the entire operation. One technical problem was that the Internet connection at the incident command in Ramnäs lacked sufficient capacity. This was later solved by a couple of volunteers who contacted the Swedish Transport Administration to ask them to connect a fiber cable. The authorities have since been critizised for not having been able to produce a functioning incident command site quickly enough, on their own, without having to rely on the knowledge and support of volunteers.

The number of helicopters deployed created a challenge for the air operations, since the aircraft were equipped with different communication solutions that were not interoperable. The problem of effective coordination of air operations was accelerated by the fact that an Air Traffic Control function was not in place until later on. The helicopter crews also received little feedback regarding the actual impact of the water-bombing.

Situational awareness

Situational awareness was poor at the beginning of the operation (maps were not up to date, nor was there any aerial overview). Fixed-wing aircraft with water-bombing capabilities would probably have been requested earlier if the situational awareness had been better. One of the early incident commanders expressed regret that he had not requested a reconnaissance helicopter on his first contact with the Armed Forces.

In the early stage of the firefighting operation, the fire and rescue services were offered support in the form of Fire Weather Index analyses and fire

forecasts. This support was declined, as the incident commanders and firefighters were not familiar with the concept, and therefore did not see the need for such analyses. Nowadays, firefighters are much better in understanding and using of the Fire Weather Index in assessing the potential risk of a forest fire.

Preparedness

There are textbooks and recommendations on how to fight forest fires, and working with demarcation lines is a recommendation commonly applied when it comes to extinguishing forest fires. In this case, however, doing so proved to be difficult. The fire and rescue services operating in the area had not planned for large forest fires inaccessible by road. The knowledge of the firefighters about how to fight a fire of this magnitude was therefore poor, that is, the level of preparedness was low. In the beginning, the firefighters did not seem to understand the magnitude of the fire and how quickly it could develop.

Previously conducted crisis management exercises were designed to meet existing recommendations. In this case, however, the problem was that the fire spread across municipal boundaries. This generated issues, such as cross-jurisdictional coordination, that previously had not been considered to any extent. The fire and rescue services from Surahammar and Sala municipalities therefore experienced coordination problems, which resulted in a non-coordinated effort.

In the beginning, there was no systematic approach to obtaining resources. For example, there were no contact lists, nor experience, on how to contact the Armed Forces about reinforcements. Contacts were made based upon personal connections, rather than on prepared contact lists. Today, the fire

and rescue service in Sala municipality is equipped with prepared contact lists, which include phone numbers to helicopter companies, for example. They also have clear descriptions of how to make requisitions for resources from the Armed Forces. In addition to that, whenever the fire risk is at its highest level, the fire and rescue service assess what resources are available in case of need.

There were no plans for distribution of water, food, and fuel for the firefighters, which became a problem early in the operation. The fire engines of the Sala fire and rescue service now all have a small supply of food and water on board.

The road that the individual who alerted the emergency services described as his location was not on the GPS maps. Also, when taking his call, the SOS Alarm service did not ask how to reach the scene in the easiest way, which is customary.

Maps were consistently a problem during the firefighting operation, even after the County Administrative Board took over responsibility. Knowledge of which maps and geo-information were available was low among many of the actors involved. It also emerged that production of situation-adapted maps is not practiced in the crisis management exercises that local and national actors take part in.

4.2 Municipalities

The municipalities' efforts during the forest fire, apart from the municipal fire and rescue services, started relatively late, in many cases not until Black Monday, when the fire had become a major event. In their risk analyses, none of the municipalities had considered the risk of a major forest fire and its implications for the municipality and its residents. There was also neither planning for evacuations nor for temporary accommodation.

Due to overloading, both Norberg municipality's and the County Administrative Board's websites went down. This created a problem as conflicting information circulated on the Internet, for example regarding the evacuation of the town of Norberg, and people were advised to seek information directly from the authorities. However, information could still be posted on the authorities' Facebook and Twitter accounts.

4.3 The Västmanland County Administrative Board

The fact that the incident commander, who was assigned when the County Administrative Board took charge of the operation, was new both to the fire and rescue services involved and to the operation, was afterwards criticized. The incident commander himself, Lars-Göran Uddholm, says that the lack of personal knowledge was certainly to some disadvantage. On the other hand, there were some cooperation difficulties beforehand that perhaps were facilitated by the entry of an incident commander without any previous background in the involved organizations.

Criticism has also been raised about the role and authority of the incident commander, that his mandate was more comprehensive compared to what incident commanders in the fire and rescue services normally have. Discussions of this issue may be an indication of uncertainties in the national crisis response system. Lars-Göran Uddholm's response is that he did what he felt was necessary to handle the situation, and that at the time no one voiced any criticism.

Finally, Lars-Göran Uddholm was also criticized by the union and the Swedish Civil Contingencies Agency for insisting on remaining as incident commander for the remainder of the operation, with-

out relief. Rotation is common practice on municipal level, contrary to praxis at state level. There was also the criticism that an incident commander must always be awake; however, there is nothing written about this in any law. According to Lars-Göran Uddholm, there is a need for continuous leadership during complex long-term events, and the deputy incident commander took on the leadership role when Uddholm was asleep.

Although coordination improved when the County Administrative Board took over responsibility for the operation, there were still some coordination and communication shortcomings. For example, Lars-Göran Uddholm points out that there was a lack of communication between himself (the Emergency Operations Center) and the municipal councils, especially regarding evacuation plans. At the time, Lars-Göran Uddholm's belief was that this information was being adequately communicated through other communication channels.

4.4 The Swedish Civil Contingencies Agency (MSB)

As there was no previous experience, the Swedish Civil Contingencies Agency (MSB) underestimated the need for resources among the involved actors. This meant that MSB sometimes acted reactively instead of pro-actively, and that requested support sometimes arrived too late. The agency's understanding of existing needs was facilitated when the agency placed two representatives on site in Ramnäs.

4.5 Other authorities

Several of the agencies that participated in the operation concluded, in their emergency management evaluations, that there was no preparation for, nor experience in handling, a major forest fire. Also, a large forest fire had not been considered in the authorities' risk assessments. This also applies to the Swedish Civil Contingencies Agency.

4.6 The Swedish Red Cross

The Swedish Red Cross realized that its internal contact system needed improvements. During the firefighting operation, the lists were not up to date, making it difficult to get hold of people in the middle of summer. Another lesson that they learned during the operation was that there was a need for more Red Cross officers on site, to organize the support and to manage spontaneous volunteers.

The information the Red Cross received regarding the need for their support was inadequate and *"jumpy"*. At times, they were informed that their support was needed right away, and then, 6 hours later, it would be announced that their support was no longer needed, only to be requested again two days later.

When it comes to donations from the public, it is important to be firm about what kinds of things are appreciated, and what cannot be accepted. Since donations often include things that are unwanted, the logistical apparatus has to be larger than otherwise needed. The Red Cross volunteers who worked in the warehouse, for example, could have been used much better. Also, about 75-80 percent of those who came to the warehouse were firefighters, who needed socks, boots, etc. In other words, it was not those who were initially intended who actually ended up benefiting from the donations. One reason for this is probably that in most cases the evacuated civilians had sufficient time to pack important belongings.

4.7 Civil society engagement

As described above, there were a large number of civilians involved in the firefighting operation. The support of volunteers has received considerable attention. This kind of support is very valuable when trying to manage the staffing of various functions, and increase endurance over time, in cases of major events. The incident commander, Lars-Göran Uddholm, expressed that he should have appointed someone with the task of taking care of the volunteers, finding out their skills, and matching them with needs. Volunteers are a necessity, he says, and without their support crisis management would suffer. There are, however, challenges associated with volunteers, such as employer responsibility. Volunteers have to be registered in order for insurance to be valid. But often there is little opportunity to do this in intense crisis management moments. Discussions of how this matter can be solved for future events have, however, begun.

Recommendations

- Plan for, and practice, coordination and cooperation for different types of situations, and for different types of organizational configurations.

- Dispatch large resources early, and accept assistance from experts, in order to increase the chances of extinguishing a forest fire as early as possible.

- Plan and prepare for how volunteer organizations, as well as spontaneous volunteers, can be used in different types of situations.

1. Tasks

A. Hand-overs, specifically transferring informa-tion, when changing incident commanders proved to be difficult during the Västmanland fire.
How would you recommend hand-overs between incident commanders be performed, and what five pieces of information do you believe are most im-portant to be transferred?

B. Describe three things that you believe could have improved the entire firefighting operation (and its outcome) at the levels of planning, prepar-ing and executing the operation.

2. Crossword
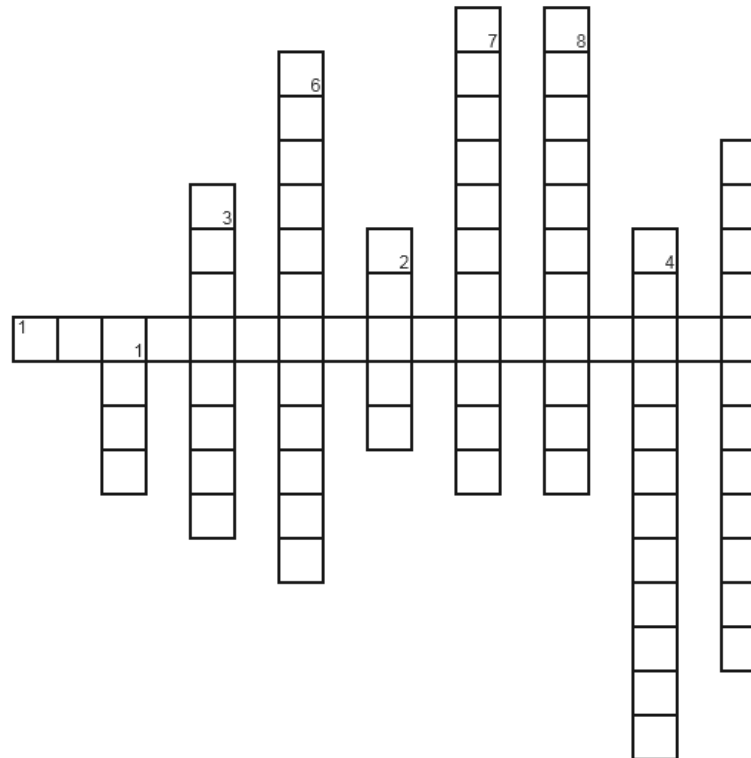
Across

1. Starting point for the forest fire

Down

1. Number of municipalities affected
2. The first fixed-wing aircraft with waterbombing capabilities that arrived originated from this country
3. Total number of incident commanders during the entire operation
4. This group of people mainly benefitted from the public donations
5. Location of the warehouse for public donations
6. Communication solution for military helicopters
7. Local police maintained this during the firefighting operation
8. The intense fifth day

Reports

- Asp, V., Bynander, F., Daléus, P., Deschamps-Berger, J., Sandberg, D. & Schyberg, E. (2015). Bara skog som briner? Utvärdering av krishanteringen under skogsbranden I Västmanland 2014. FHS/Crismart, FHS 640/201114

- Johansson BJE., Trnka J. & Berggren P. (2016). A case study of C2 agility in the 2014 Västmanland forest fire. FOI-R—4259—SE

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- Sjökvist, A. (2015). Rapport från Skogsbransutredningen. Ministry of Justice

- The Västmanland County Adminitrative Board (Länsstyrelsen i Västmanland) (2014). Skogsbranden i Västmanland 2014. (June 01 2017)

Interviews

- Jonas Prawitz, Department manager at the Swedish Red Cross. Interviewed January 27, 2017

- Göran Cederholm, Fire chief and Incident commander August 2, 2014. Interviewed February 2, 2017

- Lars-Göran Uddholm, Fire chief and Incident commander from August 5 until the operation was concluded. Interviewed February 21, 2017

- Maria Hugosson Bygge, Property owner in the affected area. Interviewed June 7, 2017

Development and evolution of the municipal flood plan in Pamplona.

Erlantz Loizaga, Judit Gómez Bengoa, F. Javier Herrera

1. Introduction

Pamplona is the capital city of Navarre, a region in northern Spain. Over 200,000 people live in this city of roughly 25 square kilometres, located in the middle of a rounded valley, known as the Basin of Pamplona, which links several mountainous formations in the North with the Ebro valley.

As represented in Figure 1, Pamplona is surrounded by several rivers: the River Arga, which flows across the city; the Ulzama River, a tributary of the Arga in the north of the city, the Elorz River, a tributary of the Arga in the south; and the Sadar River, a tributary of the Elorz.

As all these rivers converge near Pamplona, the city is subjected to a periodic flooding phenomena that impacts both citizens and critical city infrastructures. The map represented in Figure 2 shows the flood risk areas in Pamplona according to different flooding periods. Considering the effect these flooding phenomena have on the population, the Hydrographic Confederation of the Ebro River (CHE[1]) has categorized the risk of the River Arga in Pamplona at the maximum level *(see Fig 3)*.
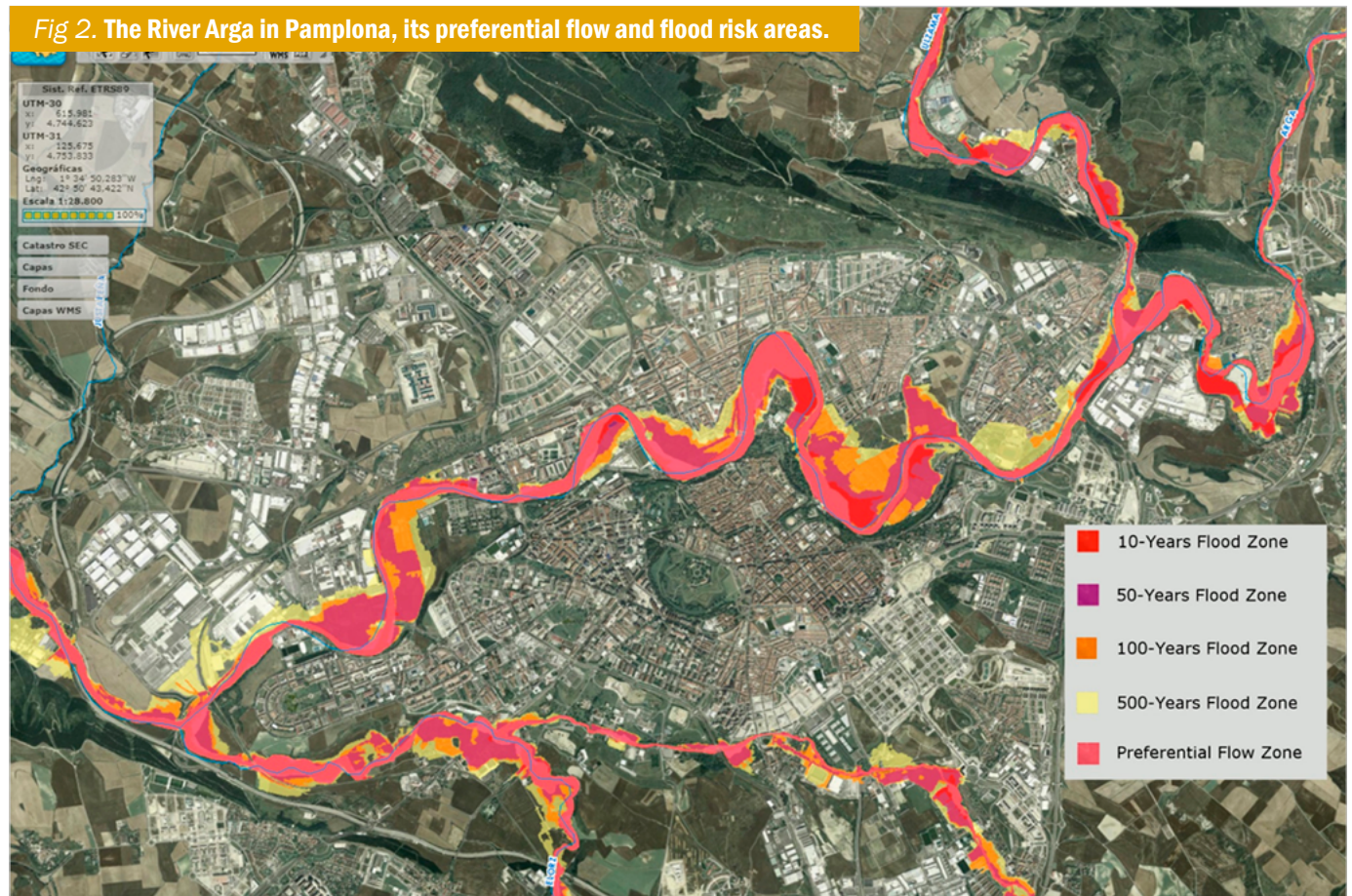
1 From its Spanish name: "Confederación Hidrográfica del Ebro"

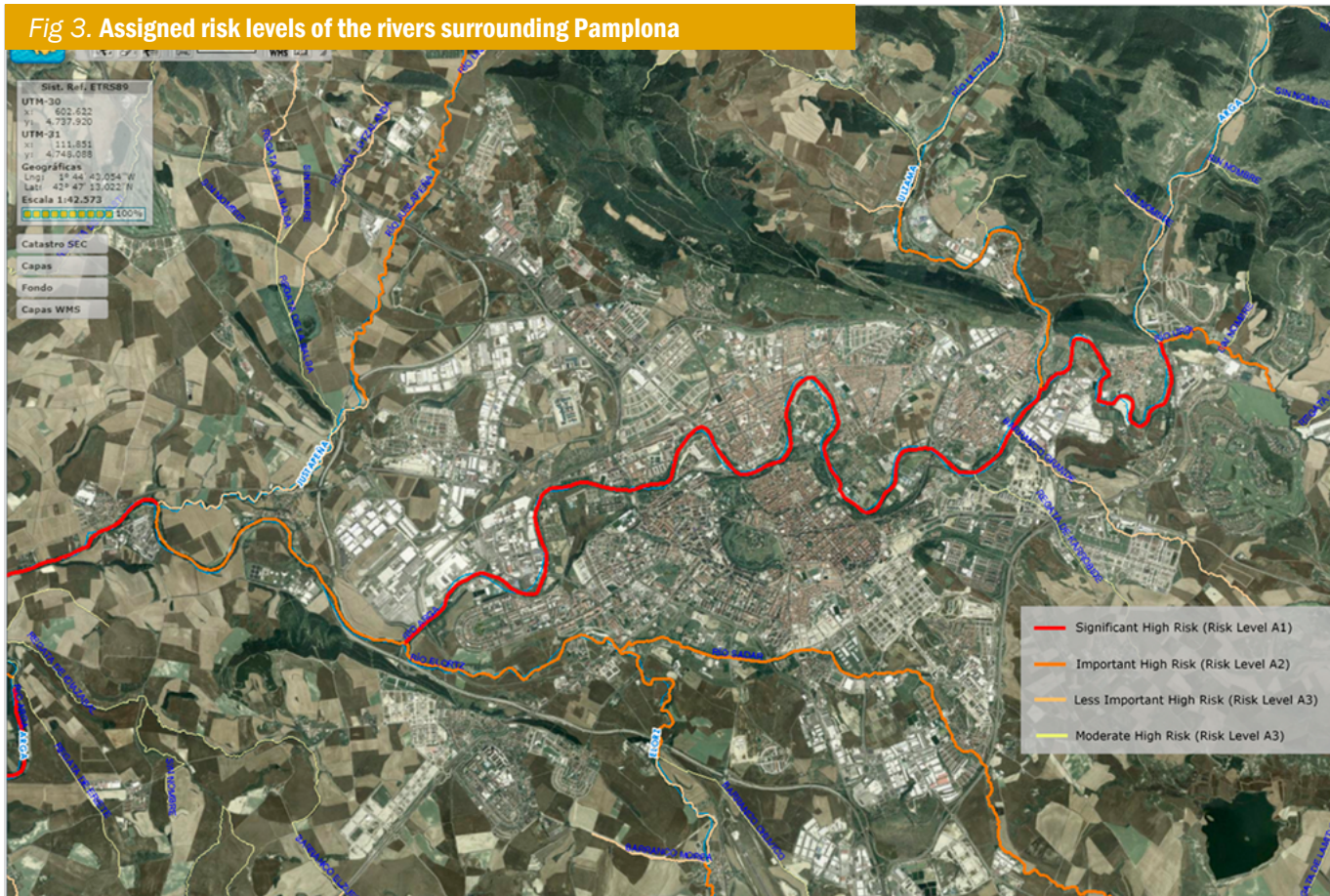Fig 1. **Main rivers surrounding Pamplona: the Arga, Ulzama, Elorz and Sadar.**
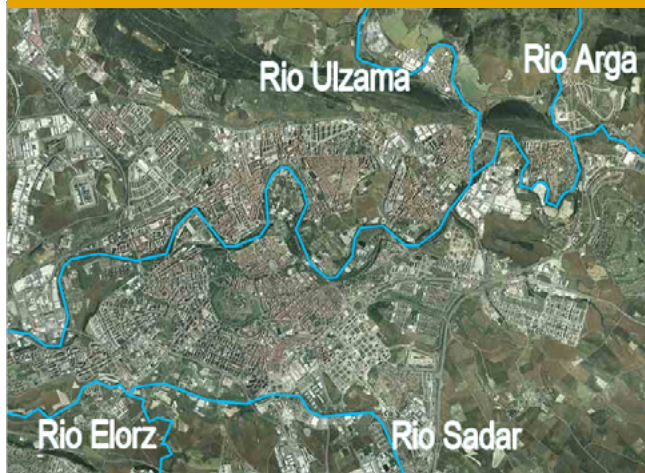
(Source: Sitna Navarra Geoportal)

Fig 2. **The River Arga in Pamplona, its preferential flow and flood risk areas.**

10-Years Flood Zone
50-Years Flood Zone
100-Years Flood Zone
500-Years Flood Zone
Preferential Flow Zone

(Source: Sistema de Información Territorial del Ebro)

Significant High Risk (Risk Level A1)

Important High Risk (Risk Level A2)

Less Important High Risk (Risk Level A3)

Moderate High Risk (Risk Level A3)

(Source: Sistema de Información Territorial del Ebro)

2. Geographical, hydrological and historical context

Throughout history, several settlements were built near the River Arga and its tributaries, which led to the formation of Pamplona as the main city of Navarre. However, during the last decades, the lack of available urban space in Pamplona and surrounding municipalities has forced several developments to occupy the natural river banks, altering the natural river flow and intensifying the impact of the natural periodical river floods.

Fig 4. The River Arga's upper flow, from source to Pamplona
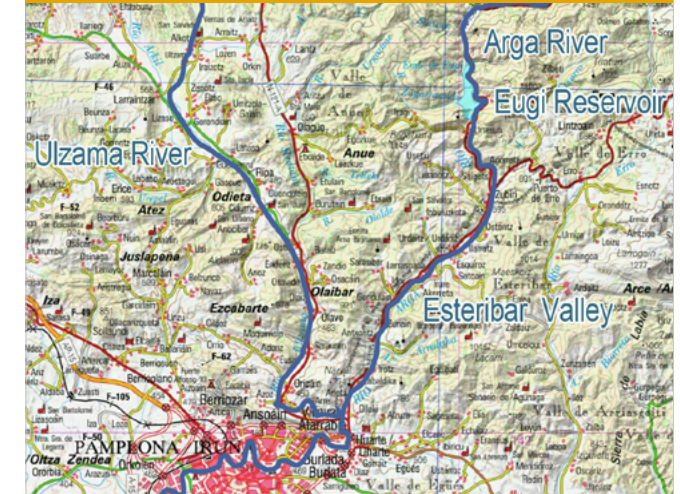
(Source: Sitna Navarra Geoportal)

Fig.4 shows the current flow of the River Arga, along with the most significant milestones until it enters Pamplona. The River Arga rises in the mountains of Quinto Real, on the southern slope of the Urquiaga Pass, north of Navarre. Flowing south, its waters feed the Eugui reservoir, which constitutes the main drinking water reservoir of the region. Afterwards, it keeps its southerly course through the Esteríbar Valley, arriving at the entrance of the Pamplona Basin in the municipality of Huarte,

As a consequence of a significant flood in 2009, the City Council began to introduce a new emergency protocol to cope with recurrent river flooding. They also promoted the collaboration with a local engineering company, to create an innovative application to simplify the effective management of the established protocol. The new application, named NOE (Noah in Spanish), was integrated into the Flood Plan in autumn 2013 and its effectiveness was tested in the 2015 flooding[2].

This case emphasizes the importance of including analysis of past cases and a continuous search for improvement when setting emergency plans. It also highlights the benefits of collaborating with private companies that can provide the necessary technological solutions to improve the implementation of the established protocols.

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2 No flooding episodes took place during 2014.

where it joins the Ulzama River, a tributary of great importance. On an average basis, the Arga river in Huarte has an annual 7.18 m3/s flow rate, with the Ulzama River carrying another 7.18 m3/s, which doubles the original flow rate. At this point, the former mountain river transforms into a meander river, being joined by a succession of other tributaries like the Elorz, the Juslapeña, and the Araquil rivers, until finally discharging into the River Aragon (a main tributary of the Ebro river).

In Pamplona, the riverbank is 500 to 1500 meters wide, and its hydrological system shows spectacular floods, which can affect a wide area of land. Consequently, the River Arga should be considered as a river of great dynamism that causes significant erosion phenomena on the external face of the meanders and slats. This natural dynamism is greatly influenced by the presence of many infrastructures, buildings and harnessing. During the last years, several efforts have been made to conduct the flow and some flood forests have been created to minimize the societal impact.

As mentioned, the River Arga is prone to natural flooding near Pamplona. Data from *Table 1* and *Figure 5* show the monthly average flow rates from October 2008 to September 2016.

The data marked in yellow both in *Table 1* and in *Figure 5* represent historical flood periods when the River Arga produced significantly high water flow rates. These data are from February 2009, January-February 2013, February 2015 and March 2016. Furthermore, as shown in *Table 1*, the water flow in June 2013 is significantly higher than in any other June data. A narrower search, based on daily data, indicate that a flash flood took place that month, precisely on 9 June. *Table 2* shows an extract from the water flow reading for the aforementioned period. Data reveals that on the 9th of June 2013 the water flow experienced an extraordinary spate, only surpassed by the reading from 12th of February 2009.

Tab 1. Historical monthly average flow rate of the River Arga in Pamplona[4]									
	2008	2009	2010	2011	2012	2013	2014	2015	2016
January		31.85	24.38	6.86	12.56	67.68	33.71	25.56	13.81
February		44.09	22.83	17.25	12.14	61.66	28.15	71.40	29.51
March		12.95	5.94	22.24	5.57	32.58	37.05	28.94	39.31
April		12.09	4.60	3.77	17.34	18.19	9.68	6.54	18.41
May		7.18	16.35	1.52	12.65	15.73	10.17	2.60	4.54
June		1.61	3.24	1.65	1.71	24.15	3.67	6.02	1.57
July		0.81	1.25	0.94	0.81	1.51	7.44	1.35	1.17
August		0.65	1.04	0.76	0.68	1.14	1.19	1.06	0.71
September		0.93	1.68	0.94	0.92	1.23	1.58	1.52	1.11
October	2.08	1.22	1.71	0.97	5.21	1.04	1.57	1.29	
November	21.92	14.93	11.92	7.67	11.32	18.64	4.46	10.25	
December	26.80	17.49	12.99	11.61	24.69	8.51	19.92	3. 23	

(Source: Historical data recorded by the national meteorological agency (AEMET))

Fig 5. **Historical monthly average flow rate of the River Arga in Pamplona**[4]
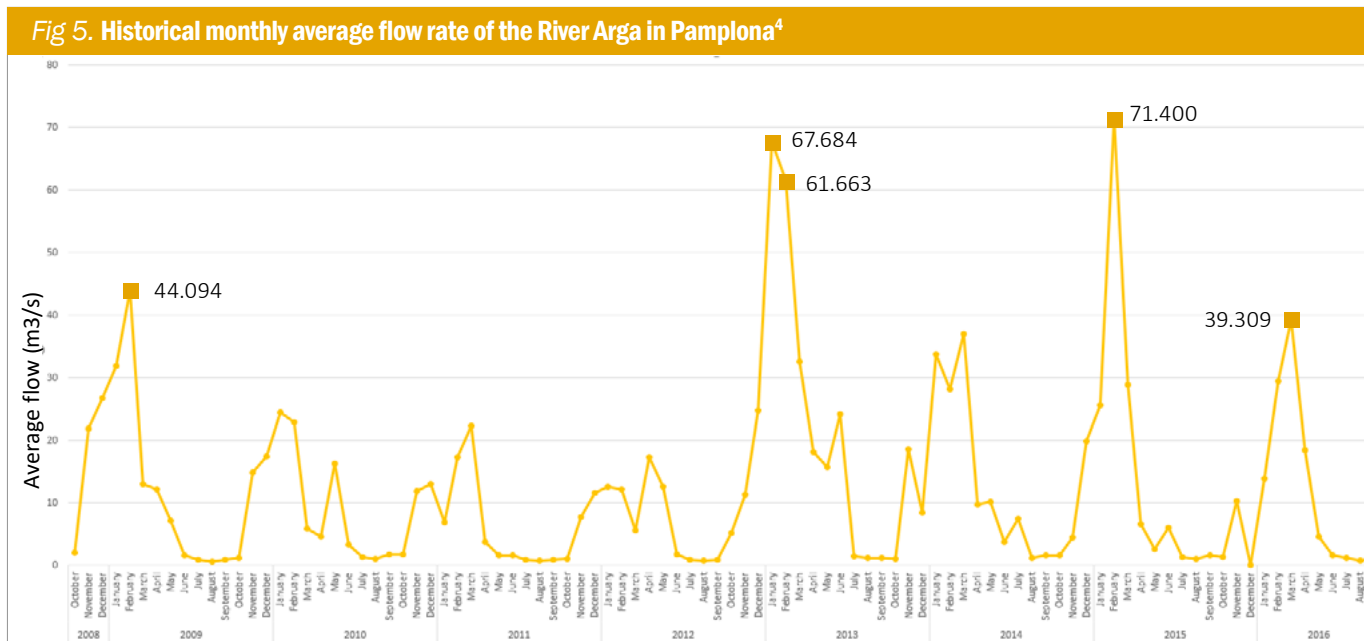
(Source: Historical data recorded by the national meteorological agency (AEMET))

This overview of the water flow in the river over time offers insight into two relevant features for understanding the nature of the floods in Pamplona. First, the fact that this spate occurred during the summer period indicates that, even if floods follow a certain periodical nature (mostly on rainy or snow melting seasons), incidents may occur any time of the year. Second, comparing that day's reading with those of previous days, we see no spate warning or anticipation signal. This is closely related to the extremely dynamic nature of the River Arga, which makes it possible for large amounts of water to arrive in Pamplona in very short time periods.

Tab 2. **Daily flow rate data**[5]	
DATE	FLOW
1-Jun-2013	60.437
2-Jun-2013	34.627
3-Jun-2013	22.362
4-Jun-2013	16.399
5-Jun-2013	13.479
6-Jun-2013	11.719
7-Jun-2013	11.240
8-Jun-2013	24.883
9-Jun-2013	270.704
10-Jun-2013	63.052
11-Jun-2013	29.963
12-Jun-2013	20.717
13-Jun-2013	15.005
14-Jun-2013	12.041
15-Jun-2013	9.749
16-Jun-2013	9.452

(Source: LINK last access 18th July 2017)

The conjunction of these phenomena makes it imperative for Pamplona to be able to rely on both a good emergency protocol and the necessary tools to guarantee its effective deployment.

3. An adaptive solution

In 2009, Pamplona suffered the first significant flood episode in the recent history of the city, which had a major impact on the area of La Rotxapea, the oldest part of the city. According to several testimonies[3] from the historical Archive of Navarra Directo[4], there was no warning of the upcoming flood and so it caused serious commercial loss due to spoiled merchandise, ruined cars in flooded underground garages and on-street parking areas and much more material damage.

The Pamplona City Council responded to this damage by deciding to implement direct action to prevent damage occurring in the future. First, preventive actions were reinforced by contacting CHE[5] and promoting the installation of a new stream gauging station that could provide more useful data to predict the water level and allow the early activation of the corresponding alarm or alert levels. Second, they implemented a free SMS service to inform the subscribing citizens about the different water levels, alerts and future predictions. Third, they elevated the river embankments and installed new manifolds to diminish the flooding risk. And fourth, they updated the "Municipal Flood Plan"[6], integrating new protocols to be carried out in case of emergency.

The Flood Plan was finally approved in 2010. The Plan defines three different risk levels according to the water level (normality, emergency and alert), plus an additional normalization phase. The plan includes several actions of differing natures (like raising citizen's awareness of the situation, retrieving endangered vehicles or limiting traffic circulation) to be undertaken in case of an emergency. Some of them even involve municipal services that usually don't carry out security related activities; for example, waste management services retrieve garbage bins from flooding endangered areas to avoid any damage.

Considering the size of the Plan and the necessity of implementing it rapidly and efficiently in case of emergency, the Department of Public Safety decided to contact a local engineering company, Tesicnor, in order to find alternatives that could ease the activation of the different Plan levels. Both the City Council and Tesicnor agreed on a public-private partnership, under a R&D funding umbrella, to collaborate on finding a solution. After some years of active collaboration, they developed a new software platform named NOE, which is currently in use by the City Council *(see Fig 6)*.

While the solution was still under development, in 2011 and 2012, Pamplona experienced new flooding episodes, and the SMS alert service was used to warn the citizens, thus minimizing the water damage. The flash flood that took place in June 2013 damaged several underground power substations, causing a severe three-hour blackout affecting 16,000 citizens. This event aggravated the water damage, as several vehicles were trapped inside underground garages and water pumps could not be operated. The Flood Plan was updated to incorporate this previously unprecedented issue, waterproofing the main substations in the city and advising several major services to work out preventive plans of their own to cope with any blackouts.

In the fall of 2013, the Flood Plan was finally implemented in the NOE application. According to the Plan, NOE establishes five phases linked to the flow of the river: Alert, from 150 to 200 m3/s; Emergency01, from 200 to 300 m3/s, Emergency02, from 300 to 350 m3/s; Emergency1, from 350 to 5,000 m3/s; and Emergency2, from 5,000 m3/s onwards. The Municipal Flood Plan describes each of these actions in detail, explaining different safety procedures, for instance, for controlling water flow records, checking the status of non-return water valves, diverting roadside traffic, announcing the
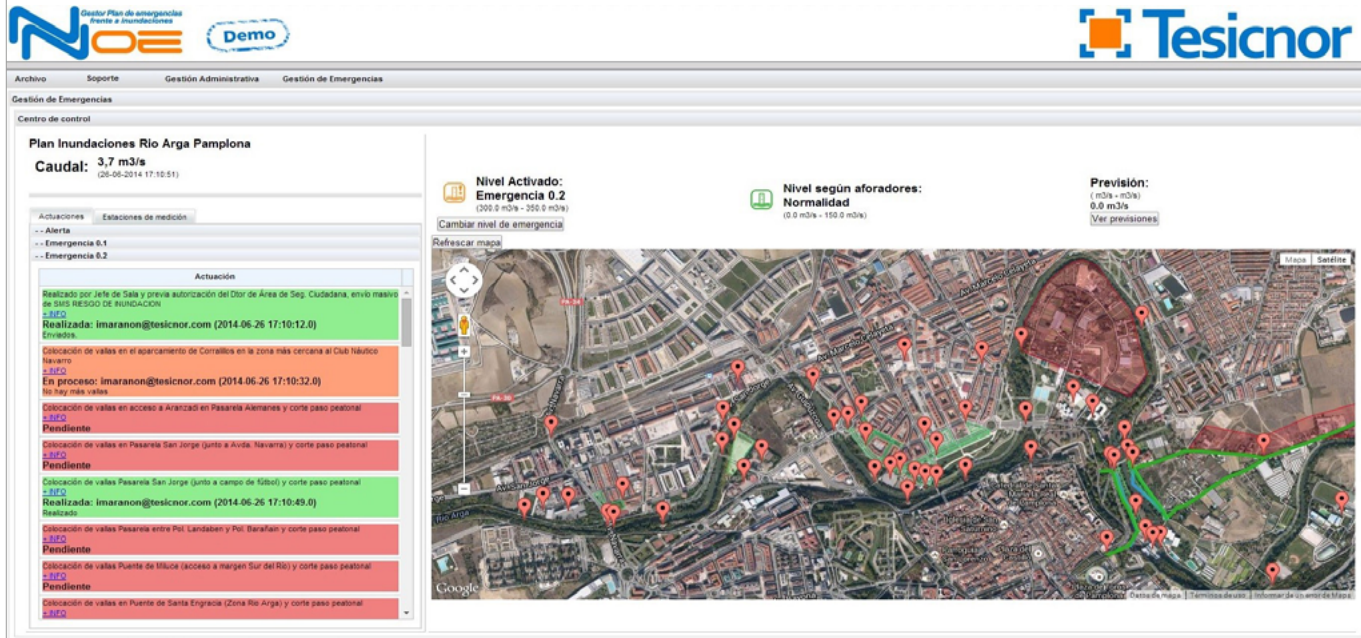
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3   Extract from local news covering the event (last access 18th July 2017)
4   News bulletin from a Local TV station
5   Hydrographic Confederation of the Ebro River (from Spanish: Confedereación Hidrográfica del Ebro)
6   Plan Municipal ante inundaciones del municipio de Pamplona

Fig 6. NOE application screenshot

(Source: *Tecnicor*)

4. A deeper insight

In order to get a deeper insight into the solution developed, we met representatives from the Civil Security Department of the Pamplona Council. We interviewed Mr. Xabier Ibañez, Head of the Civil Security Department *(Fig 7)*; Mr. Javier Goya, Municipal Police Chief Inspector *(Fig 8)*; and Mr. Santiago Pangua, Managing Director of Tesicnor *(Fig 9)*, the engineering company that developed NOE.

As Head of the Civil Security Department, Mr. Ibañez is in charge of activating the various alert levels of the Municipal Flood Plan. Considering the complexity of the Plan, the actions to be undertaken in a short period of time and the amount of people involved in the coordination, he emphasizes the usefulness of a solution like NOE for dealing with the crisis. Apart from managing the emergency, there are several preventive actions the Civil Security Department performs on regular basis to diminish the

locations subject to risk of flooding, erecting barriers, placing warning signs on buildings, informing the population by various means of communication, evacuating citizens, towing away vehicles, allocating and providing shelters for the affected citizens. Each phase of the Municipal Flood Plan defines the extent to which these procedures must be undertaken in different areas of the city.

NOE helps coordinate the various actions of the plan, by determining the procedures to be activated in every emergency phase. It also offers the projected evolution of the crisis and a list of concrete and graduated actions that must be undertaken every time. The application also automatically associates each of the procedures with the responsible area and/or specific individuals, providing their contact information if necessary, and provides a visual checklist of all the actions and their status (To Do/Doing/Done).

This works both as reminder and a monitor of the actions performed, consequently facilitating the coordination in extremely tense situations.

Fig 7. **Xabier Ibañez, Head of the Civil Security Department in Pamplona**

(Source: Video screenshot)

"One of the most important things about the emergency plan is to inform the population, and the tool that we use sends massive text messages"

A video interview with with:
Xabier Ibanez, *head of Civil Security,*
Javier Goya, *head of Emergencies*
and Santiago Pangua, *general manager at Tesicnor*

URL: https://youtu.be/CarWPzyKoFI

impact of any flood in the city, like maintenance duties involving the entire water infrastructure (sewer system, swing valves, etc.) and cleaning operations at the riverside to get rid of branches and mud that could influence the water flow. These actions have proven to be effective preventive measures.

Even if the Department lacks a labour force specialised in Civil Protection (the Municipal Police is the closest match to this role), in case of emergency, every single person working in or for the Council is instructed to act under the governance of the Civil Security Department. For instance, during the flood in 2013, several garbage containers floated out of control and were found several kilometres downriver. From that point on, if another flood is to impact the city, Mr. Ibañez can have the garbage management subcontractors remove the garbage

containers in the affected areas. These extra hands are necessary, as the floods in the area are very rapid in nature.

In order to anticipate the emergency management, the Civil Security Department stays in touch with different agencies (e.g. AEMET[7], SOS Navarra[8], CHE[9], the Water Agency of Navarre) that provide useful information for predicting an oncoming flood. All this data is also used by the NOE application to foresee how the water flow will evolve in the later hours, predicting the real-time evolution up to two hours in advance. This was a key feature

7   Spanish Meteorological Agency (from Spanish: Agencia Estatal de Meteorología)
8   Emergency Services Coordinator in Navarra (112)
9   Hydrographic Confederation of the Ebro River (from Spanish: Confederación Hidrográfica del Ebro)

when the NOE solution was conceptualized, as the Civil Security Department uses these early warnings to activate the Flood Plan before it is too late. Besides meteorological and hydrological data sources, NOE's algorithm is built based on water level data from previous floods which is meant to predict the outcome of the flood and the areas within the city that will be affected.

Mr. Goya, the Municipal Police Chief Inspector, is responsible for coordinating the emergency operations during floods, and activating the various procedures described in the Flood Plan. NOE assists in this by listing each of these tasks and setting them on a map, thus providing a visual representation of every action he must perform. The solution also allows changing the pointer colour once a task is completed, so it's an intuitive way to monitor the

(Source: Video screenshot)

status of each task. This enables the operation manager to perform the prearranged actions efficiently, and to focus on finding solutions for the unplanned situations that arise as a consequence of the flood.

Even if no emergency situation arises, NOE may also be used on Simulation Mode, enabling all the people involved to act as if a real flood was taking place. This is a very important feature because these situations are extraordinary events. Their rarity and immediacy may cause people to get imprudent, so a regular simulation-based operation allows the Municipal police to train and organize during low water level seasons, ensuring an smoother response when the real emergency takes place and the Plan must be activated. In addition, this is an efficient way of detecting vulnerabilities in emergency situations that could lead to miscoordination and consequently, identifying the areas needing improvement.

Because NOE emerged as an adaptative tool for the integration of the Municipal Flood Plan, the collaboration between Tesicnor and the City Council still continues to conceive and support future plans: for example, a better integration of more entities within the city. Right now, NOE coordinates the municipal resources and sends alarms to the residents in the areas that could be affected, but future developments will also consider other major stakeholders and essential services like water and gas/power supply or transportation agencies. These companies usually incorporate their own self-protection plans, but integrating them into NOE would allow early warnings to be raised so they could activate their own procedures in coordination with the Flood Plan.

Fig 9. **Santiago Pangua, Managing Director of Tesicnor**

(Source: Video screenshot)

The City Council understands that NOE is already part of the Flood Plan and as such, susceptible to periodic reviews, changes and improvements. Once the emergency ends, and after the emergency plan

is deactivated, the evaluation phase begins. In the aftermath of a flood, all the relevant stakeholders gather and analyze the outcome of the situation, in order to look for possible failures and improvements for future incidents. One of the ever-evolving points for improvement is the communication with citizens. For instance, during the last flood in 2015, the protocol was altered because the flood took place overnight and the early warning established on the Plan set 2:00 am as the time to raise the alarm for citizens. The main priorities in development at present are a mobile app, which will provide even more detailed information and the inclusion of more communication channels, like Twitter.

Finally, Mr. Ibañez and Mr. Goya summarize that the main goal of the Flood Plan and NOE is "Not to fight against the river, but to live along with it. That's why it's important for the citizens to know that there is a risk and be prepared for it. Natural disasters just happen, you can't do much to prevent them, but we can work to reduce their risk and impact. We can do it, by means of technological solutions, an efficent operative team and the promotion of social awareness."

1. Multiple choice test

Select the correct answer(s):

1. The main arguments to consider when analysing the reasons leading to periodic river floods in Pamplona *(select all that apply)*:

a. The city has experienced a significant and uncontrolled growth in the last century, altering the natural basin of the River Arga.

b. The River Arga experiences a significant growth in its water level close to Pamplona due to its main tributary river.

c. Pamplona lies in a rainy territory, so the Hydrological Agency frequently has to open the Eugi Reservoir, causing a highly significant rise in the water level in the River Arga.

d. Being an extremely dynamic river, the River Arga carries several materials like stone and branches that get stuck between bridge's piers in Pamplona. Inadequate river maintenance leads to periodical floods.

2. The NOE platform offers several tools and services with which to combat the flood, such as *(select all that apply)*:

a. It works with data from several agencies, like AEMET and CHE, as well as historical data to predict an oncoming flood.

b. The platform connects with different social media platforms like Facebook and Twitter to alert citizens and keep them informed of the situation.

c. People in charge of the emergency may use NOE to access personal data like addresses and phone numbers of both citizens and Civil Security Department staff.

d. The platform integrates various emergency plans from different agencies, like power and gas suppliers, allowing a coordinated activation of protocols in the case of an emergency.

e. A 3D view of the river basin is available during the emergency, offering real time information about the water level and the affected areas.

f. The application uses real-time data from a number of sensors provided by CHE, so it can't offer any special operation mode if no emergency arises.

g. During the emergency, a full list of the must-do actions is present at all time, along with their status, and those responsible for the action.

3. In case of a flooding emergency, the person in charge of operating the NOE platform to coordinate the different actions described in the Municipal Flooding Plan is:

a. The Mayor.

b. The Technical Chief of Tesicnor, a subcontracted engineering company.

c. The Head of the Civil Security Department.

d. The Municipal Police Chief Inspector.

4. The driving force behind the development of NOE was:

a. A private company (Tesicnor) looking for economic profit.

b. A citizens' initiative.

c. The city council, due to the complexity of the Municipal Flood Plan.

d. The necessity for complying with several European safety regulations.

5. Regarding the nature of the floods in Pamplona:

a. They are periodic and always take place in the same time of the year.

b. The local hydrography allows the Municipal Government to deploy preventive measures several hours prior to the flooding phenomena.

c. They can be prevented by performing adequate river basin cleaning and maintenance works.

d. As a natural phenomenon, there is little that can be done to prevent them, so human efforts must focus on reducing the flood's impact and promoting social awareness of the risks posed by the river.

2. Assignment

Think about the following topics and answer according to your own experience:

1. Reread the text and extract all the functions offered by NOE. Which ones do you consider to be most useful for coping with the emergency? Is there any function, besides those already planned and explained in the text, that you consider being significantly relevant in dealing with an emergency?

2. The platform NOE uses several data from various agencies to predict the outcome of a flood. Think about the most frequent natural disaster in your country/area and consider which data would help to foresee these emergencies and minimize their impact.

3. In your opinion, which is the main factor involved in the successful implementation of the NOE platform within the Civil Security Department in Pamplona?

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Storm surge in the Bay of Biscay

Erlantz Loizaga, Judit Gómez Bengoa, F. Javier Herrera

1. Introduction

Early February 2014, Western and Central Europe endured several windstorm events, as the storms Nadja, Petra, Tini, and Ulla brought high winds and heavy rains. The effect of the extra-tropical cyclone "Nadja" was especially significant in the Bay of Biscay, as it evolved into a 945-hPa explosive cyclogenesis that concurred with spring tides. As shown in Image 1, these concurring effects provoked extreme raging sea and high swells that caused severe damage all along the coastal region, from Galicia to the Basque Country.

With more than 185.000 inhabitants, San Sebastian is one of the major cities in the Bay of Biscay. The city is located in the north of the Basque Autonomous Community, just 20 km away from the French border. It sits at the mouth of the River Urumea and is built to a large extent on the river's wetlands, drained during the last two centuries.

In fact, the downtown and the districts of Amara Berri and Riberas de Loiola lie on the former bed of the river. The northern part of the city lies directly on the seaside, providing the city with a unique shoreline.

The effects of Nadja impacted San Sebastian heavily. On the 2nd of February, the swell height rose from 3 metres in the morning to 5-6 metres in the evening. Early the following morning, around 6:00 a.m. local time, the situation turned critical as the higher swell level converged with the spring tide. These circumstances created a destructive storm surge. Later that day, the swell height dropped from 7 metres to 5. This trend continued the following day, until the 3.5 metres swell height was achieved, marking the return to normal levels.

As a coastal city, San Sebastian is no stranger to storm-force winds and raging seas. There are several historical references regarding severe weather conditions. According to Margarita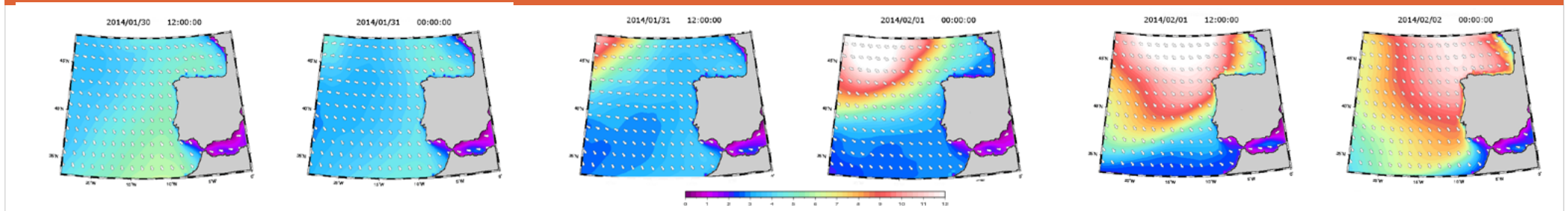 Martín (delegate in the Basque Country from the National Meteorological Agency - AEMET[1]), San Sebastian had previously suffered from heavier storms, for example, in 1930, 1965 and 1978[2]. According to buoy records of the events, the main swell height rose up to 13 metres during the 2014 event. This peak is comparable to others registered in 1996 (11 metres) and 2008 (11'5 metres). Currently, the highest mean swell height was registered in 1965 when it rose to 16 metres.

Historical data from both national and regional meteorological agencies demonstrates that similar emergencies have previously occurred in San Sebastian, so safety officers do have experience in dealing with these situations.
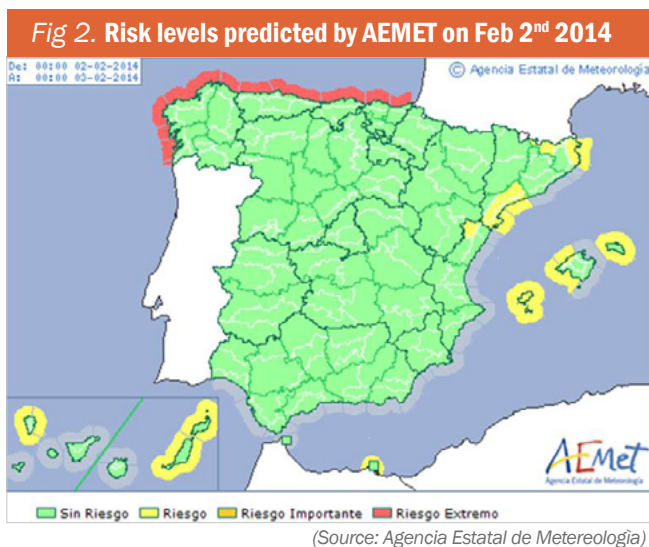Although the meteorological risk was successfully forecasted and a red alert was declared (see *Fig 2*), the destruction caused by these events

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1 AEMET declares meteorological alerts in most Spain, but due to competence distribution in the Basque Country, only DAEM may declare an alert in the Basque Autonomous Community.
2 An historic news report featuring storm surges at the Bay of Biscay (Skip to 7min 20sec).

Fig 1. Significant Wave Height evolution (in metres) during the storm surge

(Source: Meteovigo.es)

Fig 2. **Risk levels predicted by AEMET on Feb 2nd 2014**

(Source: Agencia Estatal de Metereología)

was extraordinary, even if no human causalities occurred. Later analyses of the situation showed that the predictive models established at the time were not as accurate as expected. They took only the significant wave height into account when predicting the outcome of the event and underestimated other factors like wind speed and tides. Consequently, the meteorological service Euskalmet refined this predictive model to include more significant variables for future scenarios. This study demonstrates how the Government prepared for, and responded to the meteorological adversity, how the crisis was managed both at regional and municipal level and it explains the unexpected damage that the storm surge caused in San Sebastian.

2. The Basque Emergency Response and Civil Protection System

As one of its competences, the Basque Government has designed a regional Emergency Response and Civil Protection System. This system is built upon several plans, procedures, mechanisms, means and resources from the Basque Public Administration. This enables the effective management of any emergency that takes place in the Basque Country. The Basque Emergency Response and Civil Protection System defines a set of actions to prevent, reduce and/or amend any damage to vulnerable elements resulting from natural, technological or anthropic incidents, especially when their potential or actual effects imply a serious collective detriment, catastrophe or public calamity, when the emergency may result in great damage or when it may require the coordination of different services and operations.

These vulnerable elements are listed as follows:

- The people and their bodily integrity
- Basic or essential services
- Public services and critical infrastructure
- The environment and biodiversity
- Property in general
- Normal course of daily social activities

In order to accomplish its goals, the Basque Emergency Response and Civil Protection System is organized along three kinds of entities, which are further detailed in the following sections:

- *Emergency services:* Permanently operational public services.

- *Volunteering:* Non-profit organizations that account for civic participation in civil protection and emergency relief.
- *Complementary services:* Mobilization and use of private resources, according to the criteria established by the Basque Emergency Management Act[3].

2.1 Emergency services

The professional emergency services in the Basque Country operate on a permanent 24-hour basis. Each service performs a specific function and is equipped with the necessary means to act at the scene of emergency. The following professional services are considered emergency services:

- Emergency Response and Meteorology Directorate (DAEM[4]);
- Medical emergency service (Osakidetza);
- Basque police force (Ertzaintza);
- Firefighting and Rescue services.

Emergency Response and Meteorology Directorate (DAEM)

DAEM was created in 2010, after the merger of the Emergency Response and Civil Protection Directorate and the Meteorology and Climatology Directorate, the latter joining the Department of the Interior. This merger was intended to reduce the impact of adverse weather events, to coordinate efforts towards their prevention and to improve early warning, modelling and monitoring systems.

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3   The Act in force during the described events was the original Act from 1996 (Ley 1/1996, de 3 de abril, de Gestión de Emergencias), which was amended in 2016 (Ley 5/2016, de 21 de abril, de modificación de la Ley de Gestión de Emergencias).

4   DAEM stands for "Dirección de Atención a Emergencias y Meteorología".

Fig 3. Schematic representation of DAEM structure and dependancies
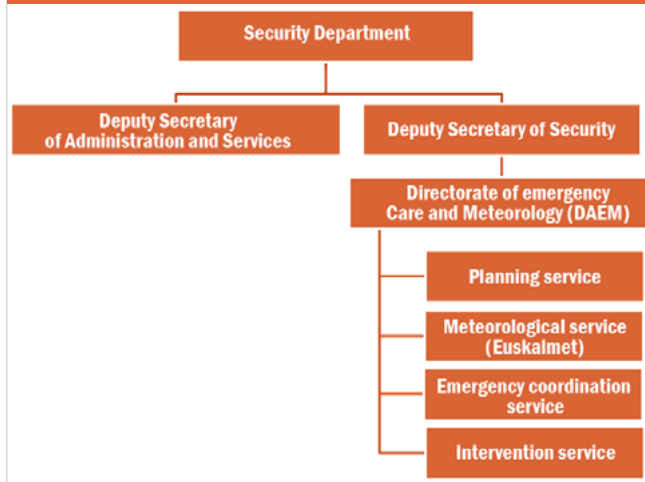
(Source: IMHO)

DAEM is in charge of coordinating the Basque Emergency Response and Civil Protection System, and ultimately accountable for the response to emergencies in the Basque Country. It falls under DAEM's remit to collaborate with other agencies and public services to offer the most suitable response to an emergency while assuring an appropriate use of public resources. To do so, DAEM acts during emergency prevention (including planning, education, and dissemination), intervention and recovery stages.

DAEM's inner structure is based upon its coordination and functional integration needs and divided into four interdependent and complementary services (see *Fig 3*):

Planning service: It anticipates risks and establishes various plans and protocols to address potential emergencies.

Meteorological service (Euskalmet): This service issues meteorological alerts based on mathematical models and the analysis of adverse meteorological situations.

Emergency coordination service (SOS-Deiak): By means of a single emergency call centre (112), DAEM assures an effective management and coordination of first responders available to cope with the emergency.

Intervention service: A designated technical team coordinates the implementation of plans and protocols, both in regular and catastrophic events. Gaizka Etxabe (*Fig 4*) is the head of this service and chairman of a group of nine experts that operates the service on 24-hour basis.

The Intervention Service coordinates the various agencies and services involved in crisis management and defines their operative structure. Consequently, they act in continuous contact with other members of the Basque Emergency Response and Civil Protection System. This system covers both catastrophic events and smaller incidents that still require coordinated management. During an emergency, they coordinate with all actors of the Basque Emergency Response and Civil Protection System, which include members from the emergency services, volunteers and political representatives from the regional and/or local institutions affected by the emergency.

The Basque Emergency Management Act of 1996 introduced a single system to manage the response to both low-scale emergencies and catastrophic events. DAEM's Planning Service has established different protocols to be activated in each situation, described in the Basque Civil Protection Plan (LABI)[5]:

In case of a low-scale emergency, the coordination centres receive a resource request through 112. This creates an emergency report that automatically triggers the activation of the necessary human and material resources. Additionally, an officer from the

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5 LABI stands for the basque "Larrialdiei Aurregiteko Bidea". The full text is accessible in Spanish at: LINK

Fig 4. Gaizka Etxabe, Head of the Intervention Service at DAEM.

(Source: Video screenshot)

intervention service is informed and coordinates the necessary actions to resolve the emergency.

In case of an extraordinary or catastrophic event, the Security Counsellor of the Basque Government triggers the activation of the corresponding emergency plan. This implies the creation of the necessary Crisis Committees[6] to develop a timely response to the situation. Simultaneously, communication protocols with both local/regional agencies and media organizations are activated in order to keep the citizens informed and to coordinate extraordinary measures.

Following the Coordination Service Directives, every actor in the Basque Emergency Response and Civil Protection System (including volunteers) employs a digital mobile radio system based in the European TETRA (Terrestrial Trunked Radio) standard.

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6 A Municipal Crisis Committee is established in every municipality affected or to be affected by the emergency.

Medical emergencies (Osakidetza)

Osakidetza was founded in 1984 as the Basque Healthcare System. Its Emergency Service is responsible for providing urgent healthcare on demand, ensuring a 24-hour service within the Basque Country.

The Emergency Service of Osakidetza is structured as follows[7]:

- Coordination Centres: Osakidetza runs three provincial Coordination Centres, one for each Basque province. The Coordination Centres are integrated in SOS-Deiak (the coordination service of DAEM) and are responsible for managing all emergency calls made through the 112-emergency number.
- Emergency and Medical Life Support Teams: These respond to requests from the Coordination Centres and provide in-situ medical assistance wherever an emergency occurs. They are also responsible for the assisted transportation of injured persons and for the sanitary management of incidents involving multiple victims.
- Nursing platform: In case of emergency calls that don't require the provision of medical equipment, they can provide basic healthcare assistance.
- Teaching and Research Service: This service is responsible for the preparation of emergency plans and protocols in response to the most common emergency situations.

Basque police force (Ertzaintza)

Ertzaintza is the regional police force of the Basque Country. It assumes the role of a central, integral and general police force, complemented at the local level by the Municipal Police, which have specific competences within the urban area[8]. Ertzaintza is structured in several divisions, the most relevant to crisis management are the Police Administration Division and the Citizen Security Division. The Police Administration Division's mission is to assist the police in management tasks. It includes a data processing centre for the police services, a police liaison service, a video surveillance service, a press service and it supports and coordinates with DAEM during an emergency. The Citizen Security Division's main purpose is the maintenance and, if necessary, reestablishment of public order and citizen safety. It is also responsible for surveillance, traffic control, criminal investigations and security analysis.

Municipal Police (Udaltzaingoa[9])

The Spanish Local Regimen Act[10] establishes and regulates the competences to be assumed by the municipalities. According to this Act, the Municipal Police has a prominent role regarding the citizenship's safety and security, as, in several aspects, it replaces the National Police[11] as the law-enforcing agency within the corresponding urban area. The Basque Local Police Bodies Act[12] further develops the necessary conditions to be met by the municipalities to create their own Local Police Forces with direct dependency to the municipal mayor.

Even if they may collaborate with Ertzaintza to develop their duties, the Basque Police Act[13] empowers the Municipal Police within their corresponding urban areas with full competence regarding the following tasks:

- Protecting municipal authorities, their buildings and facilities;
- Organizing the urban traffic, in accordance with the traffic regulations;
- Recording and processing traffic accidents in the urban area;
- Ensuring compliance with local environmental regulations;
- Providing assistance in accidents and catastrophes, participating in the execution of civil protection plans;
- Carrying out preventive measures and actions necessary to avoid the committing of criminal acts;
- Controlling the public spaces in order to protect and maintain the public order during demonstrations and other large human concentrations;
- Assisting in the resolution of private conflicts if requested.

Due to its local entity, Udaltzaingoa is usually not listed as an emergency service within the Basque Emergency Response and Civil Protection System. However, due to its characteristics, the Local Police is fully integrated in the system and, in certain circumstances, it substitutes Ertzaintza at the local level.

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7 Emergentziak Osakidetza, Cartera de Servicios.

8 See section Municipal Police (Udaltzaingoa)
9 Udaltzaingoa is the official word to refer to the whole Municipal Police Force in the Basque Country, regardless of the municipality they belong to.
10 The Spanish Local Regimen Act.
11 In the Basque Country the role of the National Police is assumed by the Ertzaintza in accordance with the Statute of Autonomy of the Basque Country.
12 The Basque Local Police Bodies Act.

13 Basque Police Act

Firefighting and Rescue services

The Firefighting and Rescue Service is an essential service of the Basque Emergency Response and Civil Protection System, as recognized by the Regulation of the Basque Public Security System Act[14]. However, the firefighting service, unlike other services such as the Police (Ertzaintza) and Health Care (Osakidetza), lacks a specific law that regulates and structures it. Thus, its legal regimen is covered by the general aspects included in the Basque Emergency Management Act. According to this Act, the Firefighting and Rescue service fulfils several functions and responsibilities such as the prevention and elimination of fires, the rescue of people in danger, the procurement of equipment and technologies and the organization of awareness-raising campaigns.

2.2 Volunteering

The Basque Emergency Management Act[15] foresees in the participation of volunteers in the Basque Emergency Response and Civil Protection System. According to the Act, volunteer organizations guarantee the participation of citizens in civil protection and emergency response and enhance social awareness concerning risk prevention and emergency intervention. In collaboration with professional first responders, the law considers skilled volunteers as an invaluable resource in the face of emergencies or catastrophes. A specific regional decree aims to regulate and empower volunteer organizations as a key component of the Emergency Response System. The decree sets out requirements for civil protection volunteer organizations to be recognized as such by the public administra-

tion and to be allowed to integrate into the Basque Emergency System, while maintaining their autonomy. Furthermore, it delimits the functions that may be assigned to them and specifies the minimum training and equipment standards to ensure the consistency and professionalism of the Basque Emergency Response System.

Non-profit organizations may request integration into the Basque Emergency Response System. To do so, they must agree to act according to DAEM directives and sign a Collaboration Agreement with the Department of Security of the Basque Government, committing to participate regularly in Civil Protection and Emergency Response duties. These organizations may organize themselves as an association (as such, they keep their own legal identity) or as an 'agrupación' (as such, they are regulated by the municipal councils).

In case of emergency, and if their participation is required, the volunteers will act under the functional dependence of the competent authority and will follow the Civil Protection Plans and Operational Tactics of the Basque Emergency Response and Civil Protection System.

Volunteering associations in the Basque Country Several associations, e.g. the Red Cross, the Rescue Dogs Association or the Basque Mountain Federation, have signed different agreements to support DAEM during emergencies. A key component of these agreements is that these groups intervene not only in catastrophic situations but also during regular incidents[16]. This policy ensures that volunteers develop a comprehensive knowledge of the established protocols and all the necessary coordination procedures. DAEM sees the regular collaboration with volunteer organizations as a vital cornerstone
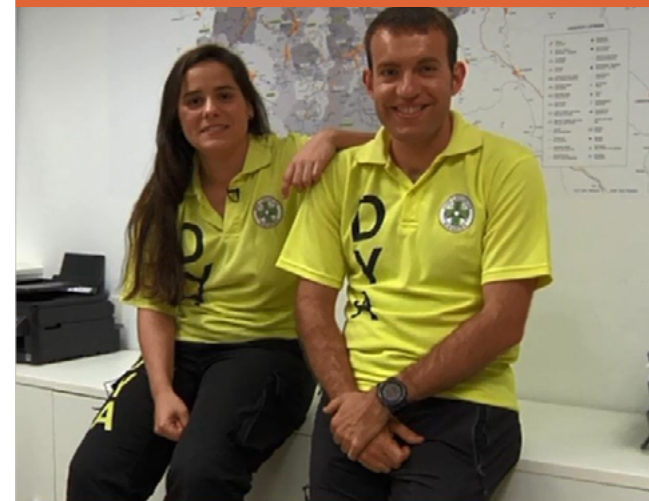
of the Basque Emergency Response System, allowing for smoother emergency operations.

DYA is one of the volunteer organizations that actively cooperated with the local authorities during the storm surge that devastated San Sebastian in February 2014. The organization was founded in Biscay in 1966 by Dr. Juan Antonio Usparitza Lecumberri (1919-2012). He was preoccupied with the lack of appropriate medical assistance and transportation following road accidents. However, the association has evolved into an organization providing more complex services like search and rescue and social assistance services. In addition, they undertake healthcare training and provide education activities to the public. DYA operates all over Spain and even in other countries, such as the Philippines and the Dominican Republic. However, every centre works within the local network and manages its own resources. Mikel Nogués (*Fig 5*), an experienced volunteer in DYA-Gipuzkoa[17], was part of the Municipal Emer-

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14 Ley 15/2012 de Ordenación del Sistema de Seguridad Pública de Euskadi.
15 DECRETO 24/2010, de 19 de enero, sobre la participación voluntaria de la ciudadanía en el sistema vasco de atención de emergencias.

16 DAEM classifies every emergency into two categories: regular and extraordinary, depending on frequency, magnitude and resources required

17 The regional chapter of DYA in Gipuzkoa, the region of which San Sebastian is the capital.

gency Board in San Sebastian during the storm surge. This Municipal Board was in charge of co-ordinating emergency services and volunteers in San Sebastian during the event and was in frequent contact with DAEM and the regional Crisis Committee through Euskarri, the crisis management platform of the Basque Country.

2.3 Complementary services

According to the Spanish Civil Protection Act[18], all citizens of legal age are obliged to collaborate, personally and materially, in civil protection, if requested by the competent authorities. In general, this requirement is limited to the fulfilment of preventive and protective measures established by the Act and by the competent authorities. However, in

the event of a serious threat or catastrophic event, all residents in the national territory are obliged to provide any personal service or material facility required by the competent authority. In that case, the competent authorities may temporarily confiscate or occupy all kinds of property needed to resolve the emergency or to prevent damage to people or critical infrastructure.

The mobilization and use of private property depends on the circumstances of the emergency response, such as proximity to the place of emergency and general resources availability. However, any confiscation of private property must take place in full accordance with the law.

3. Evolution of the storm surge

The storm surge of 2014 fell under the category 'coastal impact' within the Emergency Plan, signifying potential damage not only to persons but also to critical infrastructure. The thresholds established to classify such an emergency are based on climatological information, in this case the significant swell height, and defined along four threat levels, represented in a colour system.[19] 'Green' implies no existence of any adverse weather conditions, 'Yellow' a condition which may cause minor damage, 'Orange' a condition which may cause mod-

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18 Ley 2/1985, de 21 de enero, de Protección Civil.

19 Dirección de Atención a Emergencias y Meteorología, "Procedimientos DAEM. Predicción, vigilancia y actuación ante fenómenos meteorológicos adversos" (Revisión: V-9), LINK.

Video 1 . **Storm surge in the Bay of Biscay, San Sebastian: The Role of Volunteer Agencies**

CLICK IMAGE TO PLAY ▶
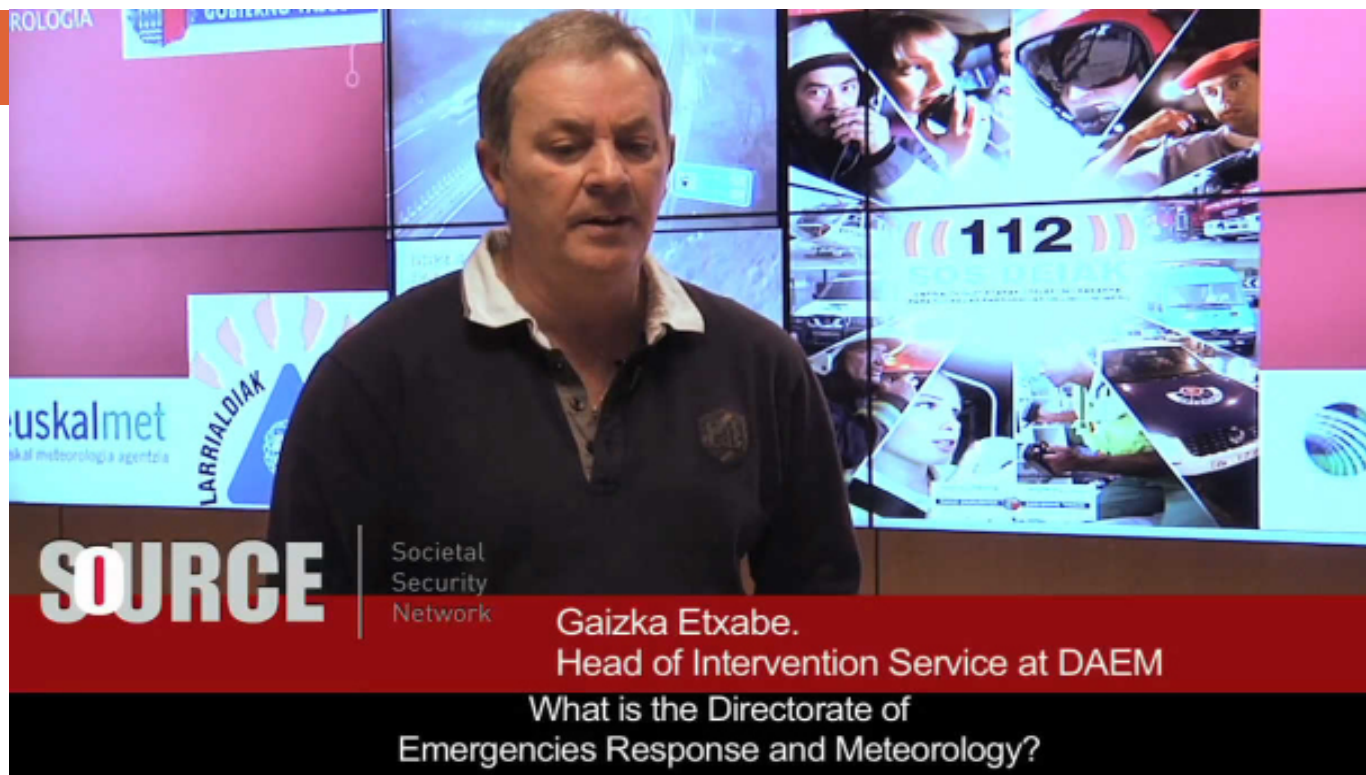
"There are incident patterns that can occure everywhere. We analyze them and together we determine new areas of improvement."

Gaizka Etxabe

A video interview with
Gaizka Etxabe, *Head of intervention service at DAEM,*
Maialen Carrión, *territorial secretary of DYA Gipuzkoa,*
Mikel Nogués, *head of rescue and civil protection at DYA Gipuzkoa,*
Mari Mar de Sosa, *coordinator of Zaharrean,*
Josean Pérez de Arriluzea, *retailer at Michael's.*

URL: https://youtu.be/5OAFgEIVCFA

erate and/or location-specific damage and '*Red*' a condition which may result in severe, widespread damage.

For the 'significant swell height'-parameter, the thresholds are set as follows:

Green/Normality	swell height below 3.5 m
Yellow/Warning	swell height between 3.5 and 5 m
Orange/Alert	swell height between 5 and 7 m
Red/Alarm	swell height above 7 m

Before the storm surge resulted in a crisis, Euskalmet, the Basque Meteorological Agency and part of DAEM, warned that meteorological models had shown high probabilities of extreme coastal phenomena that could endanger the population and the infrastructure. Considering this information, the Security Counsellor created a Crisis Committee with regional and local representatives and *lehendakari*[20] Iñigo Urkullu activated the Coastal Phenomena Emergency Plan (see *Fig 6)* in order to provide the necessary resources and to activate the procedures established. Municipal Emergency Boards were activated along the compromised municipalities, including political representatives, civil protection agencies and volunteer organizations to coordinate the local first responders. A press release was sent to main newspapers and radio stations, alerting citizens and providing them with essential guidelines to follow during the emergency.

According to the models presented by Euskalmet, not only San Sebastian, but every coastal town would suffer the consequences of the storm surge. Experts were especially concerned for Bermeo, a small fishing village whose port seemed unable to withstand such a strong impact. As an exceptional

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20 President of the autonomous government of the Basque Country.

measure, the Crisis Committee called on the Bermean fleet to shelter in the Port of Bilbao, which had the capacity to resist the incoming surge.

As the storm evolved, DAEM agencies issued the following alerts[21] and activated the corresponding risk levels of the Coastal Phenomena Emergency Plan in order to adapt the efforts to the changing situation: In San Sebastian, the Municipal Emergency Board

Sat., 1st Feb 2014	09:00 – 15:00	*Coastal events warning (Yellow level)*
	15:00 – 24:00	*Coastal events warning (Orange level)*
Sun., 2nd Feb 2014	00:00 – 03:00	*Coastal events warning (Orange level)*
	03:00 – 09:00	*Coastal events warning (Orange level)*
	09:00 – 24:00	*Coastal events warning (Orange level)*
Mon., 3rd Feb 2014	00:00 – 12:00	*Coastal events warning (Yellow level)*

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21 Euskalmet Twitter Account.

hosted at least one member from each Civil Protection agency and volunteer organization involved in the crisis management, thereby ensuring a consistent communication channel and a fluent coordination between the different actors. Additionally, the Municipal Emergency Board set aerial controls to monitor the real-time evolution of the situation using live recording from helicopters and activated an SMS service to warn the citizens of the imminent flood. As the flood also threatened several parking areas, the Municipal Emergency Board also recommended moving cars to a higher area in the city and organized a bus service to facilitate the evacuation.

3.1 Involvement of the different actors

As soon as it became clear that the storm surge would result in an emergency situation, the various actors of the Emergency Response System took the necessary measures to prevent major damage. The measures differed from one municipality to another, taking into account local particularities. Unless otherwise stated, this section will describe the emergency response in San Sebastian, based on the interviews held with DAEM and DYA.

As the principle actor in emergency situations, DAEM activated the Coastal Phenomena Emergency Plan, and modified its risk levels according to information provided by the meteorological service (Euskalmet). It also acted as coordinator of the various municipal emergency boards. As such, they provided additional resources to municipalities in need. For instance, DAEM coordinated the transport of the fleet of Bermeo to the port of Bilbao. In the case of San Sebastian, the municipal board did not ask for further resources, and so, DAEM didn't intervene. As part of its coordination responsibilities, DAEM informed media organizations in order to alert the population of the upcoming emergency situation. The meteorological service Euskalmet also used its social media account to inform people about the expected evolution of the emergency.

In response to the predicted development, Osakidetza reinforced its active medical staff, increasing the number of doctors on duty. The service was not only concerned with the storm surge itself but anticipated injuries as a result of traffic accidents and other incidences related to the strong winds. In San Sebastian, no injuries were reported, however, in the Biscay province, four people were injured by debris and received treatment in hospital.

Regional Police Forces and the Municipal Police of San Sebastian were tasked with securing the traffic in rural and urban areas. Several coastal roads were severely damaged by the impact of the storm surge and consequently impassable. The regional police diverted traffic where necessary to alternative routes. Within the city of San Sebastian, the Municipal Police had to continuously monitor the traffic situation and intervene when required. This included sealing off parts of the city to pedestrians and vehicles and blocking bridges that had sustained structural damage.

Damages to infrastructure and buildings in San Sebastian were monitored and evaluated by Municipal fire fighters, who coordinated the closure of bridges with DAEM and the Municipal Police. After the storm surge had eased, fire fighters started to remove debris and to pump out flooded buildings in an effort to restore normality as quickly as possible.

After having been notified about the potential consequences of the storm, DYA Gipuzkoa organized an ad-hoc operation, involving 20 vehicles equipped for major emergencies and a team of 150 volunteers. Given these substantial resources, DYA was able to attend more than ten prearranged locations in the coastal area simultaneously. In San Sebastian, DYA collaborated with the Municipal Police during the emergency intervention under the instructions of the firefighting brigade.

Although DAEM was ultimately in charge of any official communication activities towards the public, other actors, such as Euskalmet, the Municipal Police and DYA, also used social media to provide information concerning the emergency and its developments. These 'informal' communication channels were vital, given that DAEM was not able to cover location-specific developments in every single municipality in real-time.

Fig 7. Municipal police (in orange) and DYA members (in yellow) cooperating during the emergency

(Source: Basque Government)

Fig 8. **Map of San Sebastian. Circled in red, all the bridges that were damaged by the surge; circled in black, the old-town.**
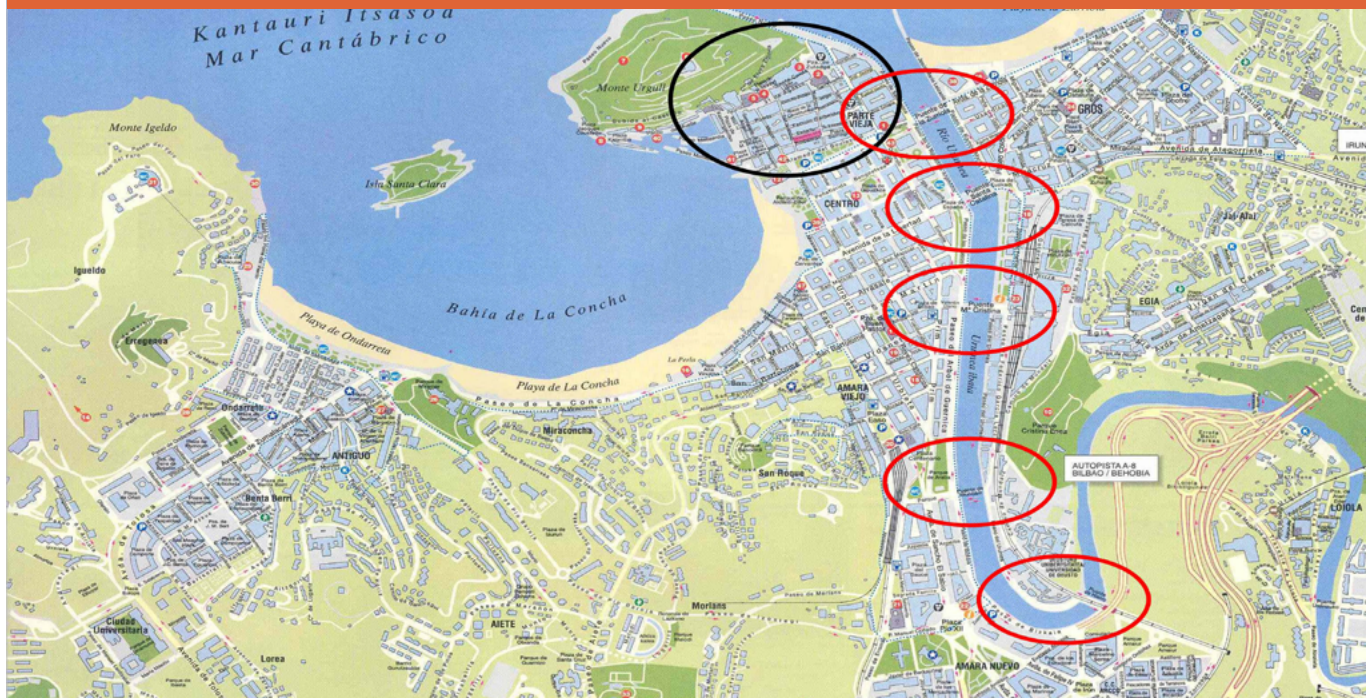
(Source: Tecnalia)

3.2 The Consequences of the Storm Surge

In San Sebastian, the storm surge climbed upstream along the Urumea River, causing severe damage to the five bridges that connect both parts of the city (see *Fig 8*). The water also broke through the promenade of the city's old town and flooded several local establishments.

Representatives of Zaharrean[22], an association of retailers in San Sebastian's old town, were notified by the fire department of the upcoming storm surge. The organization warned its members by phone, email and in person and urged them to take precautionary measures.

However, the magnitude of the surge surpassed all expectations and caught most citizens and business owners of the old town (circled in black, see *Fig 8*) off-guard.

San Sebastian had experienced several red alerts due to adverse weather conditions in the past, but there was no precedent for the destructive power of the storm in February 2014. Consequently, most retailers underestimated the situation and took only poor safety measures, e.g. boarding up the entrances of shops with wooden planks. As the water gauge in the old town reached critical levels (see *Fig 10*), these low-scale safety measures proved to be insufficient.

To the detriment of the situation, the flooding over-

burdened several catch basins of the power supply system, resulting in a blackout. Consequently, shop owners could not operate their electric shutters and were forced to break into their own shops in order to save parts of their merchandise.

In addition to the damage caused in the city of San Sebastian, DAEM reported that several other municipalities suffered the consequences of the storm surge (see *Fig 12*), the village of Bermeo in particular.

The storm surge demolished one of the port's seawalls, causing severe damage to the port's infrastructure. Had the fleet not been moved to the port of Bilbao, the damage to the village's economy would have been immense. Also, roads and highways that connect the municipalities on the coast of Biscay were affected, such as the N-634 between Zumaia and Zarautz, which was destroyed by a landslip.

Fig 9. **Mari Mar, coordinator of Zaharrean, a retailers' association in San Sebastian's old town.**

(Source: Video screenshot)

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22   A large association of retailers with businesses in the Old Town of San Sebastian. The association has more than 55 members.

Fig 10. **Part of the Old Town, flooded due to the surge.**

(Source: Basque Government)

Fig 11. **Josean, manager of "Michael's" and member of Zaharrean.**

(Source: Video screenshot)

Fig 12. **Some of the most affected locations. Bilbao acted as a safe-port for the most vulnerable fleet in Biscay.**

(Source: Tecnalia)

4. Conclusions

One characteristic of natural disasters, such as the storm surge of Biscay in 2014, is that they cannot be prevented. Hence, in this kind of situation, only accurate prediction and professional preparation can help mitigate the negative impact of such crises. For this reason, the Basque Meteorological Agency (Euskalmet) and DAEM merged in 2010. Being able to reliably forecast weather phenomena is key to activating the corresponding emergency plans, in order to reduce the potential damage. In the case described above, it proved to be an effective way of preventing human casualties.

However, even if the storm surge was successfully predicted and the corresponding protocols were activated in a timely manner, the sea caused havoc far beyond expectation. Consequently, the coastal impact emergency model was redefined. As mentioned above, the existing model only took the swell height into consideration. However, after the events described, it was decided that the swell height was not enough as the most significant parameter and it was replaced by the swell overflow index.

This new parameter[23] expresses the potential of sea water to flow over natural and artificial coastal barriers and is calculated by summing up the sea level (mostly dependent on the tides) and the expected swell run-up (mostly dependent on meteorology and coastal geography). It considers not only the swell height, but also the existence of spring tides, the concurrence of the surge with high or low tides, the swell type, power and direction as well as the coastal geography. With all the data, two overflow indices are calculated: CiMax, which expresses the highest level that will be affected by the flood, taking into account a completely north orientation of the wind, the expected sea and swell height levels and a high tide concurrence; and Ci2%, which indicates the level that will be surpassed just by 2% of the swell, under the same circumstances just described.

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23 Josu Zubiaga (Segurtasun Sailburuordea - Viceconsejero de Seguridad), "Itsasertzeko fenomeno larrien abisu-sistema berria. Nuevo sistema de avisos por fenómenos costeros adversos.", LINK

These two parameters set the current threshold for the coastal impact emergency levels as follows:

Green/Normality	Ci2% < 5.75 m	CiMax < 6.5 m
Yellow/Warning	Ci2% 5.75 to 6.5 m	CiMax 6.5 to 7 m
Orange/Alert	Ci2% 6.5 to 7.25 m	CiMax 7 to 8 m
Red/Alarm	Ci2% > 7.25 m	CiMax > 8 m

In an effort to constantly improve crisis management policies, DAEM analyses every emergency that takes place, in order to incorporate lessons learnt. As both DAEM and volunteer associations work together on a daily basis and continuously provide feedback to one another, the various protocols regarding emergencies are under constant supervision. Furthermore, the disaster contingency plans are regularly reviewed, especially in those aspects related to plan activation and team coordination.

The original Basque Emergency Management Act of 1996 integrated emergency responses to both ordinary, low-scale and extraordinary, disastrous events into a single system. This concept was based on the assumption that cooperation and coordination of emergency services in non-extraordinary situations benefited the preparedness for catastrophic events. Several years of experience show the success of this model. The emergency response to daily, regular incidents in continuous collaboration with established volunteer organizations, make the procedures known to every actor involved in emergency management and help maintain communication channels that are fundamental to coping with any extraordinary emergency. In Gaizka's (Head of the intervention service from DAEM, see *Fig 4*) own words: "If you don't deal with these regular emergencies, you can't expect to jump out of your seat and be successful when dealing with an extraordinary one."

However, the experiences made since the introduction of Basque Emergency Management Act have also revealed necessary updates to some aspects of the regulation. These include a strengthened coordination and interrelation of operations of the different institutions and services, improved communications systems, the standardization of action procedures, and a better integration of private and social initiatives with the activities of the public sector. Consequently, in 2017, the Basque Government introduced a new Basque Emergency Management Act, repealing and replacing the old one.

1. Multiple choice test

Select the correct answer(s) for each case:

1. Volunteer emergency services are activated:

    a. in the event of a catastrophe being imminent.

    b. in the event of any emergency, even a minor one.

    c. On a daily basis.

    d. Volunteer emergency services are never activated.

2. The training of the volunteers is provided by:

    a. Professional first responders.

    b. The volunteer organizations themselves.

    c. A joint programme of educational institutions and individual experts.

    d. None of the above. Each volunteer must arrange for their own training.

3. In the present case, the use of technology to warn citizens and shop managers was:

    a. Extensive, as all of them are connected to the emergency services through special channels and receive constant information on any incident that may affect them.

    b. Limited to warnings only for the most affected areas.

    c. The authorities contacted the association of shop managers and left it to the association to contact its members.

    d. No technology was used.

4. The creation of an emergency board is the responsibility of:

    a. The highest authority in the region, represented by the department in charge of the emergency response.

    b. The firefighters, on behalf of the municipality.

    c. A coordination committee put together by a representative of each organization participating in emergency service.

    d. Any organization can create the emergency board by activating an alarm in a shared system.

5. One of the lessons learnt in the aftermath of the storm surge in San Sebastian was that:

    a. Most of the volunteers didn't appear to be well enough trained to accomplish their tasks and better training mechanisms must be developed.

    b. Communication technologies weren't sufficiently utilized so a tender was launched to fund the development of a new communication platform.

    c. The meteorological data wasn't adequately processed and so the forecast wasn't accurate enough.

    d. The collaboration with individual citizens was so successful that the municipality launched the creation of a citizen brigade to support emergency services.

2. Discussion

Think about the following topics and provide a suitable answer according to your experience:

1. In your opinion, what similarities do you see in this case with the emergency response in your country and what differences are there due to cultural, legal, or operational factors?

2. In your opinion, what can be improved in the coordination, management, or training of volunteer organizations to provide better support in emergency operations?

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Solutions to assignments:

2016 Brussels bombings.

Quiz answers:

1-b; 2-b; 3-a; 4-a; 5-b; 6-a; 7-a; 8-b; 9-a; 10-c.

Västmanland 2014 forest fire.

Keys to crossword

Across:

- Deforestation area

Down:

- Four
- Italy
- Fourteen
- Firefighters
- Riddarhyttan
- Text messages
- Checkpoints
- Black Monday

Development and evolution of the municipal flood plan in Pamplona.

Quiz answers:

1-b; 2-a,c,g; 3-d; 4-c; 5-d.

Storm surge in the Bay of Biscay.

Quiz answers:

1-b; 2-b; 3-c; 4-c; 5-c.