# Summary

IMPROVER workshop

*13th of October 2016*

For the group work the participants were divided into 4 groups to discuss approximately 2-5 questions for 1, 5 hour. Each facilitator was provided with a list of participants and a list of questions depending on the group numbers.

## Group 1 summary - Hazard scenario identification

**Q1: What methods do you use for scenario identification when doing risk assessment?**

There are different approaches to identifying scenarios depending on the operator. In addition to the risk assessment of scenarios given by the authorities, critical infrastructure operators also define their own scenarios internally in their organisation. Context related regulations can also affect the methods being used.

In Denmark, the major electricity provider assess risk scenarios given from authorities every 3rd year. In addition to these scenarios, they define their own scenarios.

In the case of the port of Oslo the administration reports to the municipality, who distributes a general plan for risk assessment in the municipality with a list of scenarios, and the port adds their own scenarios to the list. This has not been working sufficiently, and the municipality is now working on a new acceptance criteria. All enterprises in port have their own regulations and plans.

In France the framework for identifying risks and risk analysis is regulated by French authorities, but not the methodologies. Methodologies are agreed upon between risk experts and industrial sites, and methodologies are chosen specific for each site.

**Q2: Do you assess risks of every possible hazard to your infrastructure?**

Assessing risk for possible hazards are carried out to a different degree by operators, from evaluating all relevant risks to evaluating risks which have a high probability or potentially large consequences. These risks involve both man-made and natural risks. In some cases the evaluation of these risks along with hazard maps are defined by experts and municipality. If the site belongs to risk areas, the operator has to study these risks. Now new regulation takes terrorism into account, this poses an administrative challenge due to the number of reports and their confidentiality.

There is a change in the way of considering hazards, being more directed towards business continuity now than before.

**Q3: Do you use experts in risk assessments?**

Experts are used in the risk assessment to different extent. Some only use internal experts whilst others only use external experts. In the case of Oslo port it would not be accepted to do internal risk assessments for activities that are important for the port activity, therefore they buy risk assessment services from companies i.e. experts.

Danish electricity provider uses internal experts conduct the assessment, nevertheless they also gather data from other experts, i.e. meteorological agencies.

**Q4: Are you happy with current procedures?**

There are side effects of using scenarios which would perhaps require external assessment. These side effects are not assessed today. Too little is included about cascading effects e.g. who, i.e. which organization, will be responsible for actions in a cascade of events? One organization states that they are mostly satisfied with how it is done today, stating that some procedures are good and some are not.

## Topic 2

**Q1: Do you know the public expectations, and do you measure them?**

None of the group members identify or measure public expectations. One group member stated that they know about e.g. potential disruption to services, but not about the public expectations related to these services.

**Q2: Do you use social media**

Operators use social media to different degrees. Some only uses their web site to give information and others use Twitter and SMS services to communicate with the public, authorities and journalists. Here one operator collaborates with another company that provides telephone numbers etc. whereby they send SMSs to areas where people live. Information spreads quickly this way, and it makes the public prepared for an expected power outage, or informs about estimated time to recovery if there is an outage. This works well because information increases people's acceptance and the operators avoid that everyone calls you.

**Q3: Do you have a company strategy for social media**

Times are changing and people have expressed the need for two-way communication in crisis, cf. all the Facebook groups that are created in crisis. The operators are at different stages when it comes to a social media strategy. Where some have a clear strategy others have SMS services that are currently being updated to a regular company strategy.

# Group 2 summary - Public expectations

**Q1: Are operators aware of which levels of reduced service the public is willing to tolerate in the face of a disaster (and for how long)? If so, how do they measure them/take them into account?**

Operators need to understand the needs of the public. Operators are aware that there are minimum levels of tolerance in relation to reduced services of disruptions but there is a need for criteria and guidelines. At the moment there is no knowledge and no measurements in regards to public expectations. Therefore, it is difficult to respond efficiently to meet public expectations. There is also the challenge that people, during their daily life, have different expectations compared to emergency situations; as soon as the operator informs the public about a "crisis" (mentioning the word "crisis") public expectations suddenly change.

**Q2: Do you think that minimum acceptable service levels are a good lens with which to examine resilience?**

There is a general view that minimum service levels are a good thing. Countries should always work to provide minimum levels. It is further believed that people need to be prepared when they are not going to have minimum acceptable services levels; because it is strongly believed that communication calms the public. The question remains of who should determine these minimum levels. Should it be defined by politicians or the public? Minimum acceptable service levels need to be defined by politicians together with the public. One way could be to develop guidelines upon the events that happened in countries with crisis.

In countries where there are not many accidents there is not much attention on emergency and crisis events. In countries like America, they are prepared compared to Copenhagen, where fewer accidents make the basis for measuring emergency events and tolerance levels less evident.

Professor at the University Of Regensburg, Germany expressed that minimum acceptable services levels should be thought of in relation of the variable of 'time': interactional time and normalization time during which the 20% of services should still be served.

In Denmark the fire services are partially regulated and are working on developing the appropriate regulation. The service that they deliver depends on the training that the firemen have. The representative of the Danish Fire Brigade also adds that the public should 'ask the right questions' in order to allow them to provide a good service. They also need to speak a language understandable by the public. Furthermore, if someone calls in 'sick' during crisis they have 4 substitutes in place. In Portugal on the other hand they do not have enough personnel to substitute the employees who call 'sick'.

Referring to a fire in Madeira the tourists were going towards the fire meanwhile local people were helping them asking them to go toward the sea and wait. The strong communication barrier and lack of communication produced panic. To improve action in the event of emergency meetings are held every second year, where politicians and community representatives decide how to work during disasters.

**Q3: What types of information should operators share with the public during a disaster? How should operators communicate with the public during a disaster (traditional media, social media)?**

There is the necessity to define the type of communication to employ on social media as well as face-to-face communication e.g. mediators on the spot. At the moment operators use different types of information media such as radio, Facebook, Twitter and SMS to communicate with the public. The general attitude is that information should be shared although not all operators the whole truth all the time.

One operator within fire services states that although they use social media, there is a need to know more in relation of the type of communication within different media, maintaining consistency between promises and reality. They do not use SMS because they are too expensive. They measure their communication impact in relation to people's reaction online. The communication strategy is formed by: informing and dictating (i.e. what to do, what not to do). Then, after 5-20 minutes they follow up with additional

information in relation to people responses. In the case of an emergency they employ interpreters to communicate and inform in Danish and English after 5 hours.

The water suppliers in Portugal have a smart app now. They send mediators to look after fragile people e.g. the elderly. In that way they talk about potential solutions face-to-face. They say almost everything during big disasters to contain the panic.

**Q4: Would a communication guide on how to use social media to communicate directly with the public during a disaster be useful for operators? What would you expect from such a guide?**

The communication during crisis needs to be coordinated, facilitated, and needs to go beyond linguistic barriers; hence there is a need for an internationalization of the communication guide.

There are mixed views on whether it is necessity to take into account tourists and different languages. One example that speaks for diversification is a fire in Madeira last summer (2015) where nobody informed tourists of what was happening and where to go. There were simply no policies in place in these types of emergency events. The use of new technologies might help, such as a tip device that sends notifications to people's phone.

At the moment the process of communicating and uploading information can be time consuming. Therefore there is a large potential for making information on social media easier.

## *Group 3 summary – Public communication practices*

**Q1: How do/should operators communicate with the public during a disaster using traditional and social media?**

During national or local disasters a reliable source is important to get information to the public. Due to the risk of webpages crashing they should not be used alone. The Twitter app is reliable as it uses little bandwidth. Using several channels helps disseminate the information more broadly.

An app for disaster information can be used, but it should be more than just a disaster app. The app should also contain a useful information in times when there is no disaster to keep it useful at all times.

An example is that in Japan every smartphone sold has an app that authorities can use for emergency messages. Some cultures would accept this but others would not, as it would be seen as if "Big Brother" sees everything you do.

There is also a question as to the difference between what an operator and authorities should disseminate during crisis.

Another observation is that on-site operations/rescue work and information to the public is not always coordinated nationwide, but work better on regional and local level.

At the moment some operators use websites and social media to communicate with the public while others do not have specific means to communicate with the public in case of crisis. At present there is no plan on how to solve this issue. In some cases Twitter is used together with the national warning system.

**Q2: What factors have influenced your use of social media for communicating with the public during a disaster? And what kinds of information do/should operators share with the public during a disaster?**

The public has a need to share information but there is not always a practical way to solve this.

In Denmark the disaster message is the same nationwide. There is no adaptation after culture, region etc. as it is perceived that there is no need for this. At e.g. a terrorist attack the public needed and demanded updated info. In this situation the police gave new updates every 30 minutes even if there were no new issues to report.

## *Group 4 summary - Resilience methodology*

**Q1: What are your requirements for moving from risk assessment to a broader resilience assessment?**

- **Type of tool (survey, software)**
- **Resources (cost, competence requirement, user-friendliness of tool)**
- **Etc.**

To make the move from risk assessment to resilience it is important to identify who is responsible for making this happen i.e. who is responsible for ensuring resilience (top accountable entity).
The mechanisms of risk assessment and resilience assessment are perhaps similar, but a change in the mindset of management is needed. Currently the main focus is to avoid scenarios and the recovery aspects are usually missing.

The view is that it can be very expensive to be “resilient”, without being visible. There needs to be something to justify the efforts and motivate operators to move from risk assessment to resilience. This could be with a push from authorities and legislation in order to facilitate this transition. This also means that authorities should be informed about resilience aspects to be able to formulate requirements/approve assessments and methods. (Authorities sometimes want to know how much CI operators can provide vs. CI operators want the authorities to guide them.)

In terms of tools they need to be easy-to-use with simple interfaces e.g. spreadsheets, list of actions in case of crisis, and a way to note where something is not good enough. The presented methodologies are really scientific, theoretical and not practical for operators.

Furthermore the assessment needs to be repeatable, objective and transparent. Security of the tools is also important. Perhaps authorities should provide the assessment tools.

There are pros and cons for both internal- and external audit. Perhaps it is good to get assistance from a public and/or competent organization to the audition of an infrastructure and give precise and realistic measures for improved resilience of the infrastructure.

Resilience aspects need to be broken down in “chunks” so the operators can understand the underlying mechanisms and how it can be improved.

**Q2: Do you prefer to evaluate risk/resilience as absolute or relative measures? "Relative" may imply evaluation of resilience relative to other similar facilities, or monitoring change over time within your own facility.**

Absolute evaluation is difficult!

It is important that the evaluation should facilitate improvement of resilience. Tools for this might already be available, but need to be combined: e.g. business continuity management + historical data + risk assessment.

It is important to note the difference between business continuity and service continuity.

## *General discussion main points*

- There is a need for comprehensive cooperation between critical infrastructure operators and authorities.
- When discussing how we should involve the public more fully in the process, it was suggested that if you provide information, especially under normal conditions, then the public will find you.
- Operators should be prepared to receive information – it is up to each sector / operator / actor to deal with the information which is received.
- Resilience, as a problem or subject is owned both by the operators and regulators but also emergency management agencies.