

Societal Security in the Nordic Countries



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Societal Security in the Nordic Countries

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Cover: Oslo 6 July 2012. The area around the Norwegian government buildings is about to open to the public after having been closed since the terrorist bomb exploded 22 July 2011.
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Preface

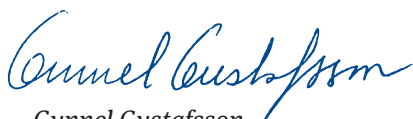
This report is the result of a process starting with the 2009 Haga Declaration from the Nordic ministers responsible for societal security. In Denmark and Sweden the responsibility for societal security lies within the Ministries of Defence, in Finland and Iceland within the Ministries of the Interior, and in Norway within the Ministry of Justice and Public Security.

As part of the follow-up to the Haga Declaration, a Nordic working group issued a report outlining possible actions to stimulate increased Nordic research and development collaboration in this field. One of the actions recommended was to initiate a Nordic research programme on societal security. NordForsk was asked to support a pre-study framing such a programme, an undertaking that NordForsk considered to be of great importance and well in line with our strategy.

A NordForsk working group comprising both researchers and research funders was appointed to carry out this task. This group concluded that a Nordic research programme on societal security should employ a multidisciplinary approach and focus on cross-sectorial, trans-boundary issues and consequences for the Nordic countries. In addition, the group identified thematic areas where there is a need for new knowledge and where Nordic research collaboration would lead to added value. It is argued that such a Nordic research programme on societal security could provide a solid knowledge base for political and practical actions needed to help strengthen Nordic solidarity and cooperation within the field of societal security.

NordForsk would like to express our gratitude to the chair of the NordForsk working group, Professor Bengt Sundelius, Uppsala University and Swedish Civil Contingencies Agency (MSB), as well as to the other members of the group: Bjørge Ofstad (Research Council of Norway), Kurt Petersen (Lund University), Pirjo Markkola (University of Jyväskylä), Alyson Bailes (University of Iceland), Jan Hovden (Norwegian University of Science and Technology) and Ninna Nyberg Sørensen (Danish Institute for International Studies).

Oslo, February 2013



*Gunnel Gustafsson
Director of NordForsk*



1. Executive summary

Objectives

The objective of the multidisciplinary research programme on societal security is to develop new knowledge about and solutions for the many aspects of societal security affecting the Nordic countries. Societal security comprises the ability of a society to sustain vital societal functions and secure its population's life, health, needs and basic values under extraordinary stresses, known as crises. The programme will address questions of vulnerabilities, resilience and capabilities for crisis management related to prevention, preparedness, response and recovery. An investment of this type in research excellence may promote greater security for the inhabitants of the Nordic countries by helping to reduce societal vulnerabilities and build common capacities. Advanced knowledge, acquired competences and innovative tools will contribute to safeguarding the security of populations and societies from various threats while upholding fundamental human rights and basic democratic values.

Rationale

Research on societal security issues has developed separately in the Nordic countries. The recent emphasis at the political level on Nordic solidarity in the face of disasters, acts of violence and cyber attacks has created a clear demand for collaborative research across the region. A higher degree of excellence and significant, targeted results can be achieved together by means of a common investment in a multi-year programme that links together existing research groups. The new, research-based knowledge developed can then be effectively diffused to those in positions of authority throughout the region, to be drawn upon in national and cooperative efforts. It may also help to raise awareness among the general public.

The Nordic societies are small and open, and are highly exposed to the pressures of globalisation. Engagements in global flows are beneficial to economic growth and prosperity. However, globalisation and more open European borders have made it easier for organised groups and persons acting outside of the law to take advantage of the Nordic societies' interdependencies and relative openness. The nexus between internal societal security and international or global security has an important role to play in research designed to underpin future capacity-building.

While the Nordic countries are in no way identical, they do share many values and features that can facilitate shared mind sets and joint actions in the field of societal security. Their geographical proximity means that disasters in one country may have consequences in another and that many societal security challenges will cross boundaries. The potential for mutual assistance is good, but there are multiple obstacles to interoperability. By taking advantage of the typical Nordic openness towards the work of scientists and the range of comprehensive, accessible databases in the Nordic countries, a coordinated research initiative can pave the way for comparative studies of various social and political phenomena of importance to societal security.

A Nordic research programme is also important to gaining strategic leverage and strengthening Nordic contributions within the wider and larger-scale security research components of the forthcoming EU Framework Programme, Horizon 2020. The Brussels-based programmes do not primarily focus on topics of importance to the Nordic region or on issues in which Nordic scholarship excels. Nordic research entities are often very small and can become marginalised in a wider European setting. In order to gain leverage in these European processes, larger, better networked, more highly profiled and targeted Nordic research centres are needed.

Thematic profile

The difficult but widely embraced concept of “resilience” may capture the essence of what is required to meet the grand challenges relating to societal security in the future. Research is needed on the various components of resilience as set in a human, socio-technical, societal, organisational, political and transnational context. Resilience may be defined as the capability of a social system (e.g. an organisation, city or society) to proactively adapt to and recover from both expected and unexpected disturbances. The programme should have a multidisciplinary approach and focus on cross-sectoral, transboundary issues and consequences for the Nordic countries. Generic and problem-focused research topics can be examined in various empirical domains in which expert knowledge and contextual aspects are added.

Methods of constructing national or regional risk maps with indications of consequences, including economic and social costs, need to be developed and conveyed to various users, including the public at large. In particular, the identification of second-order consequences of identified risks must be included in the analysis. Comparative studies of methodologies and profiles are called for. The open Nordic countries may serve as a laboratory for such comparative studies across space and time.

Research on institutional design issues is required in order to deal with crises in a multi-organisational and transboundary context. Further research is especially needed on inter-organisational coordination and collective management of all phases of crisis handling, from prevention and preparedness to response and recovery. The judicial and ethical foundations of governance for societal security must also be critically examined through research. This will involve comparative research on variations in ethical and value-based foundations for security governance, where social cohesion, trust, openness and other factors may characterise the Nordic societies to a higher degree than many other societies.

Research may, for example, focus on the individual and small groups in society and on the relationships between these actors. An understanding must be gained of the fabric of a networked, diverse society in which many individuals feel secure, but some have a sense of being excluded from the community. Such knowledge-building is part of a strategy to help to prevent acts of extreme violence that may erode open democracies and fundamental civil rights.

Research is also needed on the role of the media and the Internet as transmitters of messages and meaning, and as actors and stakeholders in dramatic emergencies. While social media are useful tools, they are also a source of complexity in information management and communication – a topic which has become increasingly important.

Learning processes during and after disasters are not well understood. Building resilience over time may be seen as a continuous learning process, resting on research-based knowledge that is turned into novel practices by people and organisations in authority. This adaptation-learning dynamic is under-studied in the field of disaster management. Comparative examinations of the processes taking place in the aftermath can lead to a better understanding of the ability to recover and learn from disasters.

There are many emerging security challenges that need to be examined in the Arctic region and the High North, where conditions for emergency management are especially difficult, and where vulnerability to natural and manmade damage is high. Many stakeholders are increasingly active in this vast area, where commercial, environmental, energy, territorial and military interests are interwoven. Vulnerable local populations are under pressure from outside forces. Many of the generic problem areas addressed above are relevant in relation to the rapidly transforming Arctic. Taking a comprehensive

approach to promoting societal security by advancing knowledge and enhancing practices could make a difference in this potential crisis zone, where the Nordic nations are on the front lines in terms of both hazards and opportunities.

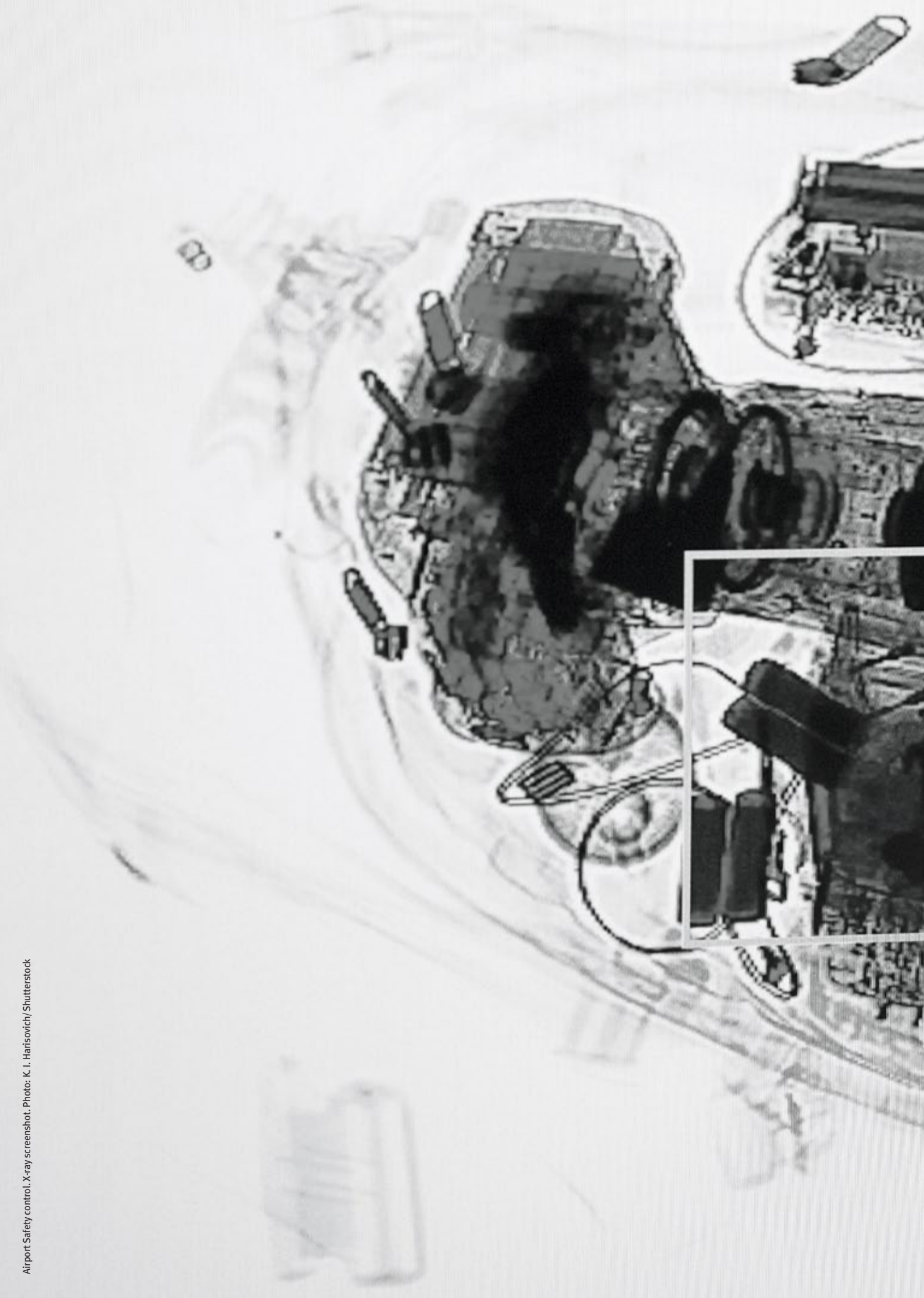
Forms of funding Nordic research

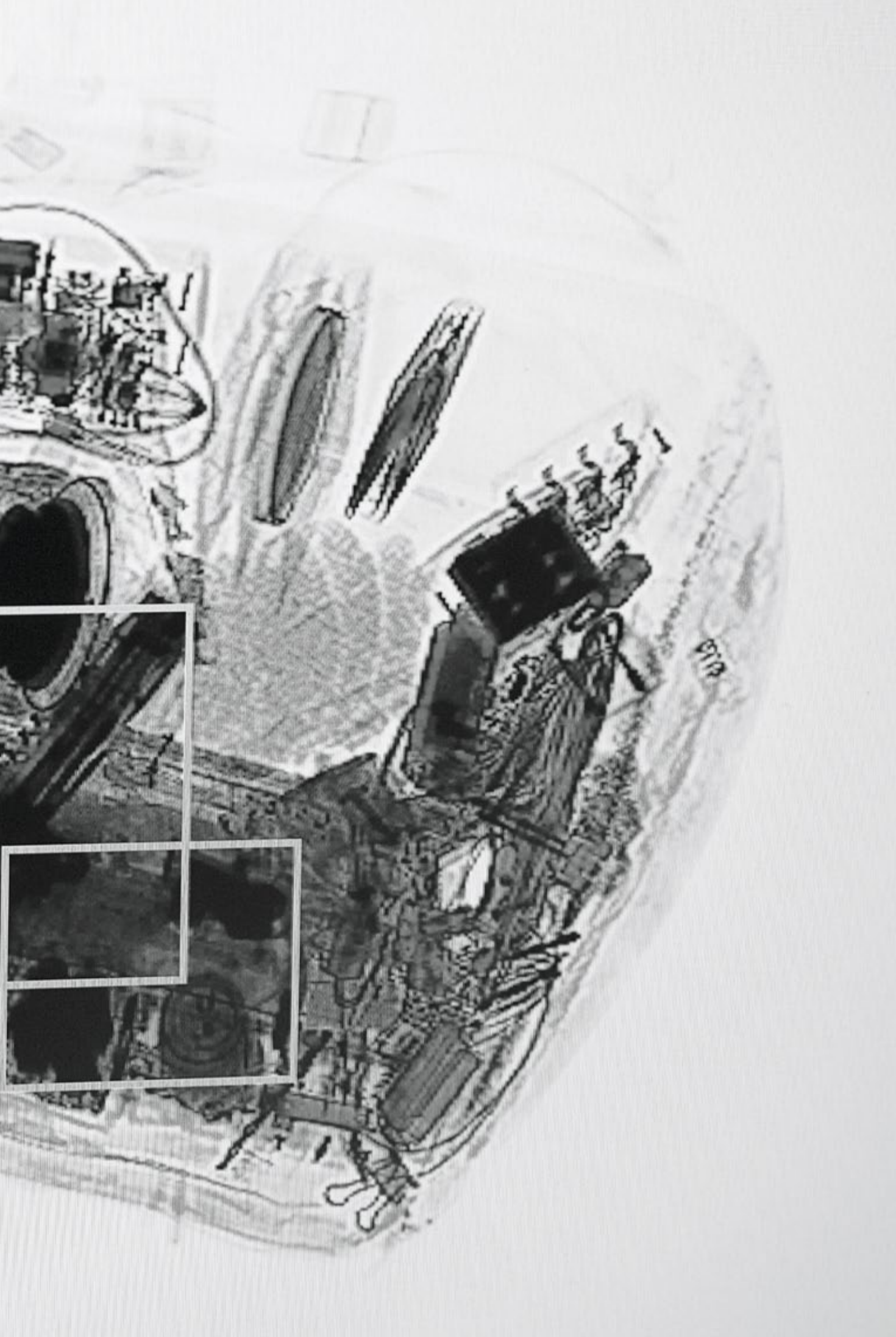
Just as the management of societal security is organised under different government portfolios in the Nordic countries, funding for research in the field stems from a variety of different entities. These should contribute to a “common pot” to co-fund the programme over several years.

The Nordic research programme should facilitate the establishment of a number of Nordic Centres of Excellence within the overall thematic area of societal security. If each centre is established with a different thematic focus, then the benefits of systematic, high-quality research could be obtained within a number of the topics addressed above. These centres should build on established, high-calibre research groups in the Nordic countries and cultivate links between selected groups. Each centre should take a multi-disciplinary and problem-focused approach, and should be well networked with the wider international scientific community in its individual field.

To promote cooperation among the centres and with other actors, funding should also be awarded for building research networks, organising thematic conferences and establishing joint Ph.D. courses. Institutions from at least three Nordic countries should be included in each activity. In addition to conducting research of high scientific quality, the centres should establish enduring working relationships with different types of end users in the field of societal security.

– *Bengt Sundelius, July 2012*





1.2 Sammendrag

Målsetning

Et multidisiplinært forskningsprogram for samfunnssikkerhet kan utvikle ny kunnskap om og løsninger for de mange aspektene ved samfunnssikkerhet som berører de nordiske landene. Samfunnssikkerhet vil si et samfunns evne til å opprettholde viktige funksjoner og å sikre befolkningens liv, helse, grunnleggende behov og verdier i tilfeller av ekstraordinære hendelser og kriser. Programmet vil ta for seg spørsmål vedrørende sårbarhet, motstandskraft og evne til krisehåndtering sett i sammenheng med evne til å forhindre, være forberedt, reagere og komme tilbake til normal situasjon etter en krisesituasjon. Resultatet av programmet skal være økt sikkerhet for befolkningen gjennom mer kunnskap og nye verktøy, samtidig som grunnleggende menneskerettigheter og demokratiske verdier ivaretas.

Bakgrunn

Forskning på samfunnssikkerhet har utviklet seg forskjellig i de nordiske landene. Politisk fokus på solidaritet i Norden i forhold til katastrofer, voldelige eller digitale angrep har skapt et behov for regionalt forskningssamarbeid. En felles investering i et flerårig program med klare målsetninger og resultatkrav basert på fremragende forskning på tvers av landegrensene vil kunne gi en klar merverdi. Forskningsbasert kunnskap på dette feltet kan gi stor nytte både i nasjonal og nordisk sammenheng.

De nordiske samfunnene er små og åpne og er svært utsatt for press utenfra. Deltakelse i global utvikling er fordelaktig for økonomisk vekst og framgang. På den annen side har globalisering og mer åpne europeiske grenser gjort det enklere for kriminelle organiserte grupper og enkeltpersoner å utnytte våre samfunns innbyrdes avhengighet og åpenhet. Det er derfor viktig å se på sammenhengen mellom nasjonal og internasjonal samfunnssikkerhet.

De nordiske landene er ikke identiske, men de har fellestrekk og felles verdier som legger til rette for samarbeid. Geografisk nærhet betyr at en katastrofe på ett sted kan få konsekvenser på et annet, og mange samfunnsmessige utfordringer krysser landegrenser. Mulighetene til å hjelpe hverandre er gode på forskningsfeltet, med åpenhet og tilgjengelige databaser som utgangspunkt.

Et nordisk forskningsprogram er også viktig for å styrke Nordens bidrag i forbindelse med EUs store satsing, Horizon 2020. For å få en betydning her vil større nordiske fremragende forskningssentre få mye større gjennomslagskraft enn en mer fragmentert satsing i hvert land.

Tematisk profil

Evne til krisehåndtering og gjenopprettelse av normalsituasjon ("resilience") omfatter det som kreves for å møte de store utfordringene for samfunnssikkerhet i fremtiden. Forskning er nødvendig for å belyse ulike sider ved dette; menneskelig, sosio-teknologisk, samfunnsmessig, organisatorisk og politisk på tvers av landegrenser. "Resilience" vil si et samfunns evne til å komme tilbake til normalsituasjon etter

både ventede og uventede hendelser. Forskningsprogrammet bør ha en tverrfaglig tilnærming på tvers av sektorer og grenser for temaer med betydning for de nordiske landene.

Metoder for å studere nasjonale og regionale risiki, inklusive mulige konsekvenser, bør utvikles og kommuniseres til ulike brukere, inklusive allmennheten.

For å bli i stand til å håndtere kriser på tvers av grenser og organisasjoner er det behov for forskning på hvordan institusjoner fungerer. Det er også behov for koordinering og felles ledelse i alle faser av krisehåndteringen. I tillegg bør juridiske og etiske problemstillinger ved samfunnssikkerhet i Norden spesielt undersøkes nøye gjennom forskning.

Ett forskningsfokus kan være på individet og mindre grupperinger i samfunnet, og på forholdet mellom disse. Det er behov for forståelse for mekanismer i et sammensatt samfunn der mange føler seg trygge, men hvor noen har en opplevelse av å være ekskludert fra fellesskapet. Kunnskap om dette er viktig for å kunne bygge en strategi for å forhindre ekstrem vold som kan true demokrati og grunnleggende rettigheter.

Det er behov for forskning på medias og Internets rolle som overførere av budskap og synspunkter og som aktører i dramatiske situasjoner. Sosiale medier er nyttige verktøy, men er også kilde til kompleksitet i kommunikasjonssammenheng.

Læringsprosesser i løpet av og etter katastrofer er ikke forstått godt nok. Arbeidet i kjølvannet av katastrofer kan betraktes som en kontinuerlig læringsprosess, som vil lede til nye fremgangsmåter for folk og organisasjoner i maktposisjoner. Dynamikken i tilpasnings- og læringsprosesser er ikke studert i særlig grad innenfor krisehåndtering.

I nordområdene og Arktis er forholdene spesielt vanskelige med kompliserte forhold for krisehåndtering, samtidig som sårbarheten ved naturkatastrofer og som følge av menneskeskapte ødeleggelser er store. Mange aktører er aktive i dette området med ulike interesser som henger sammen, og de lokale befolkningene er sårbare. De nordiske landene står i frontlinjen både når det gjelder muligheter og trusler.

Finansiering

På samme måte som at samfunnssikkerhet sorterer under ulike departement og styringsstrukturer i de nordiske landene, er også finansiering av forskning på området organisert forskjellig.

Det foreslås et felles-nordisk program i regi av NordForsk, med ett eller flere Nordic Centres of Excellence (NCoE) innenfor fagområdet samfunnssikkerhet. NCoEer bygger på eksisterende forskningsmiljøer av høy kvalitet og skal stimulere til samarbeid. Et NCoE innen fagområdet samfunnssikkerhet bør ha en tverrfaglig problemstilling og knytte kontakter til bredere internasjonale miljøer på sitt felt. Forskerutdanningsaktiviteter og brukeropplæring kan inngå i et NCoE.

I tillegg til forskning på et høyt vitenskapelig nivå skal et NCoE etablere varige relasjoner til ulike kategorier brukere innenfor fagområdet samfunnssikkerhet.



2. Nordic research programme on societal security

Objectives

The objective of the multidisciplinary research programme on societal security is to develop new knowledge about and solutions for the many aspects of societal security affecting the Nordic countries. The programme takes as its point of departure the following definition: societal security comprises the ability of a society to sustain vital societal functions and secure its population's life, health, needs and basic values under extraordinary stresses, known as crises.

The programme will address questions of vulnerabilities, resilience and capabilities for crisis management related to all four phases of a security event: prevention, preparedness, response and recovery. The programme will study crises of an extraordinary nature, either in terms of the scale of the consequences or in terms of multi-organisation or multi-country impact. Such crises may be caused either by a sudden change, intentional or not, or by slow, long-term evolution. Advanced knowledge, acquired competences and innovative tools will contribute to safeguarding the security of populations and societies from such threats, while upholding fundamental human rights and basic democratic values.

The proposed Nordic programme will seek to ensure that the new, research-based knowledge generated can be transformed into enhanced practices by the leaders and operators who are responsible for providing and developing societal security and for dealing with various security challenges effectively and legitimately. New knowledge may also help to raise public awareness of these issues. In this way, investment in research excellence may directly and/or indirectly promote greater security for the inhabitants of the Nordic countries by helping to reduce societal vulnerabilities and build common capacities.

Background

The Nordic countries have cooperated closely in the area of societal security for decades, despite different military alignments during the Cold War. In recent years this tradition of practical and problem-focused cooperation across national borders to ensure the safety and security of the countries' inhabitants has been strengthened through several political initiatives. Thorvald Stoltenberg, a former Norwegian Minister of Defence and Minister of Foreign Affairs, was commissioned by his Nordic colleagues to present recommendations for more intensive security collaboration in the region. His 13 recommendations (10 on civil issues) were tabled in 2009 and his report has generated a number of initiatives in the area of societal security.

One such initiative was the 2011 Nordic Declaration of Solidarity, which complements the solidarity clause of the 2009 Lisbon Treaty of the European Union. This political pledge can only be effectively implemented in real disaster or crisis situations through the establishment of a number of common capacities that are interoperative and tested through transboundary exercises. Capacity-building for mutual assistance must be based on new knowledge acquired through critical research.

Another recent step in intensifying concrete cooperation in the area of societal security was the signing of the Nordic Declaration at Haga in 2009. In this political statement, the ministers responsible for societal security agreed to further develop emergency management cooperation within specific areas. Several expert working groups were established and these are required to report annually to the relevant political leaders. Societal security falls under the purview of different government ministries in the Nordic countries: the Ministry of Defence in Denmark and Sweden, Ministry of Justice in Iceland and Norway, and Ministry of the Interior in Finland. This inconsistency at the top level necessitates cross-sectoral and cross-administrative coordination in the working groups.

One expert group was assigned the task of exploring the prospects for Nordic research cooperation in the field of societal security. The Norwegian chair formally presented the group's report to the Haga ministers in November 2010. In December 2011 the ministers met again and decided to forward the report on research cooperation to the heads of the national societal preparedness agencies. The Nordic Council has repeatedly called upon the Nordic governments to initiate and support a joint research initiative in the field. One of the recommendations of the Haga working group was for NordForsk to take the lead in developing a joint research programme on societal security. NordForsk took the first step towards this in October 2011.

Rationale

Research on societal security issues has developed separately in the Nordic countries. The appendix provides a summary of the modest national efforts. However, the more recent emphasis at the political level on Nordic solidarity in the face of various types of disasters, acts of violence and cyber attacks has created a clear demand for collaborative research across the region. A higher level of excellence and significant, targeted results can be achieved together by means of a common investment in a multi-year programme that links together existing research groups. The new, research-based knowledge developed may then be effectively diffused to those in positions of authority throughout the region, to be drawn upon in national and cooperative efforts. Such advanced knowledge may also provide benefits in terms of increasing public awareness and involvement.

There is a need to build a common knowledge base to promote a shared understanding of the risks and threats that the Nordic societies may have to confront in the future. Emerging risks and unexpected events must be recognised at an early stage if prevention and response strategies are to be effective. A number of common capacities to enhance local, national and regional resilience in the context of highly complex, interconnected societies need to be established in order to live up to the 2011 Nordic Declaration of Solidarity.

The Nordic societies are small and open, and are highly exposed to the pressures of globalisation. Openness is one of the most significant values, strengths and expressions of resilience of the Nordic societies. Engagements in global flows are beneficial to economic growth and prosperity. However, globalisation and more open European borders have made it easier for organised groups and persons acting outside of the law to take advantage of the Nordic countries' interdependencies and relative openness. These challenges to societal security can be met more effectively through the implementation of common policies and concrete actions. It is crucial that programmes designed to enhance societal security are grounded in research-based knowledge.

It is important to highlight the nexus between internal societal security and international or global security in research that will underpin future capacity-building. This can be exemplified by IT-based financial transactions, which move across space at tremendous speed and intensity. Cyber security knows no geographical boundaries and is becoming a topic of ever greater concern among political and corporate leaders.

The openness that has made the Nordic societies among the most liveable in the world must comprise the point of departure for a future-oriented joint Nordic research agenda on societal security. Which societal processes of change may give rise to both new tensions and conflicts and new forms of cohesion and community? An understanding of the underlying conditions, factors and dynamics at play will make it possible to map the issues that can help to protect the openness of the Nordic countries and the Nordic region in a globalised world.

While the Nordic countries are by no means identical, they do share many common values and features that can promote shared mind sets and joint actions in the field of societal security. Their geographical proximity means that disasters in one country may have consequences in another and that many challenges will cross boundaries. Similarly, the potential for mutual assistance is good. There are, however, constraints to interoperability, which must be recognized and overcome through research and exercises.

The Nordic countries have a common cultural heritage, and share fundamentally similar values and views regarding safety and security, social stratification and gender roles, as well as a similar linguistic basis. This provides them with a good foundation on which to work towards a common end in this field. The political systems and administrative structures are similar in many ways and existing differences can be easily understood by all. The emphasis on community relations, the evidence of great public trust in the authorities and among people in general, and a high level of social capital are features shared by all the Nordic societies.

By taking advantage of the typical Nordic openness towards the work of scientists and the range of comprehensive, accessible databases in the Nordic countries, coordinated research activities can pave the way for comparative examinations of various social and political phenomena of importance to societal security. In this manner, the Nordic region may serve as a testbed for wider European research ambitions related to the solidarity clause, Article 222 of the 2009 Lisbon Treaty.

A Nordic research programme is also an important tool for gaining strategic leverage and strengthening Nordic contributions within the wider and larger-scale security research components of the forthcoming EU Framework Programme, Horizon 2020. Many Nordic researchers are already engaged in EU-funded projects. However, the Brussels-based programmes do not focus primarily on issues of importance to the Nordic region or on topics in which Nordic scholarship excels. Nordic research entities are often very small and run the risk of becoming marginalised in a wider European setting. The prioritised Nordic thematic emphasis on research for societal security represents a modest, but expanding aspect of the huge EU security research investments in certain social sciences and widespread technology development.

A Nordic programme should identify potential strengths for success in EU consortia and project applications. A certain concentration of limited Nordic resources and available talent may be necessary in order to have a meaningful impact on parts of the wider European security research agenda.

The European Commission's draft version of the EU Horizon 2020 Framework Programme identifies a number of priority themes for security-related research from 2014 onwards:

- Fighting crime and terrorism;
- Strengthening security through border management;
- Providing cyber security;
- Increasing Europe's resilience to crises and disasters;
- Ensuring privacy and freedom in the Internet;
- Enhancing the societal dimension of security.

The Commission's proposal of 31 May 2012 includes the above topics and adds three more:

- Protecting and improving the resilience of critical infrastructures, supply chains and transport modes;
- Strengthening security through border management;
- Enhancing standardisation and interoperability of systems, including for emergency purposes.

Nordic research groups must look at these priority themes and consider where they can offer substantive inputs through novel approaches. Larger, better networked, more highly profiled and targeted Nordic research centres are needed to gain leverage in European processes. Research groups must also be given long-term funding to provide stable conditions for research for years to come and to attract the next generation of scholars.



3. Thematic priorities for a Nordic research programme

Generic and problem-focused research topics

Risk and vulnerability assessments based on formal methods of risk analysis have traditionally been the basis for crisis (disaster) management. This is still a valid and useful approach for known risks, but it needs to be supplemented, as we are increasingly dealing with complex, dynamic systems and emerging risk and human actions. The task at hand is more about assessing uncertainties rather than probabilities in a strict sense. We need to address the challenges of managing the unexpected and the unknown. The difficult but increasingly widely embraced concept of “resilience” may capture the essence of what is required to meet the grand challenges relating to societal security in the future.

Research is needed on the various components of the ambiguous concept of resilience in a human, socio-technical, societal, organisational, political and transnational context. A working definition of resilience that fits the present thematic focus is: Resilience is the capability of a social system (e.g. an organisation, city, or society) to proactively adapt to and recover from both expected and unexpected disturbances. Hopefully, the underlined words will inspire researchers to deconstruct the concept in order to identify more specific areas for scientific inquiry. Such analytical activities would help to underpin and give direction to research in the field, which is often mission-oriented and applied.

A risk governance framework for strengthening resilience is useful in identifying thematic priorities. Resilience should be emphasised in the problem-framing phase in particular. The programme should furthermore employ a multidisciplinary approach and focus on cross-sectoral and transboundary issues and consequences for the Nordic countries.

Such generic and problem-focused research topics can be examined in various empirical domains, to which expert knowledge and contextual aspects may be added. Traditional but still important domains include the societal effects of the vulnerabilities in interdependent critical infrastructures and critical societal functions. Examinations of new stressors to these systems and functions may be appropriate for a resilience management approach. New stressors (hazards and threats) of increasing relevance are related to climate change and extreme weather, including space weather, new infections affecting humans, animals and plants, or other natural hazards. Priority should be given to topics that cross sectors and geographies, such as energy grids, transportation arteries, telecommunications or financial flows. Cross-border efforts between the Nordic countries will be required to address the sources, consequences and management of disasters in these areas.

Prevention

The relationship between various hazards and basic societal values needs to be examined. Perceptions and social constructions of risk and threats are important additions to traditional methods of measuring these phenomena. Since risks cannot be entirely eliminated, the approach to prevention should include research on the attributions of risk and how people and organisations live with and handle recognised risks.

The European Commission has initiated a process to construct national risk maps, along the examples of the work done in the United Kingdom, the Netherlands and Norway. Many governments are in the midst of putting together such national risk maps, which the Commission will eventually combine into an EU-based risk registry. These efforts need to be problematised and grounded more firmly in research.

Methods of constructing national or regional risk maps with clear indications of consequences, including economic and social costs, need to be developed and conveyed to various users, including the public at large. In particular the identification of second-order consequences of identified risks needs to be included and weighted in the analysis. Comparative studies of methodologies and profiles are called for.

The open Nordic countries may serve as a useful laboratory for such comparative studies across space and time. Data are available and practitioners are generally accessible to scientists who need information on their practices. Within an overall framework of similarity between the countries, research can point to essential differences and try to explain these through robust comparative studies. The most-similar systems design for comparative analysis is suitable for application here.

Capacity-building for response and recovery

The Nordic countries are embedded in wider global networks and structures that offer opportunities both for prosperity and for exposure to emerging risks. Capacity-building is needed for managing risk within an “all-hazards” approach that encompasses all risk contingencies. Research on institutional design issues is required to deal with crises in a multi-organisational and transboundary context. Among the many important elements of crisis management, further research is especially needed on inter-organisational coordination and collective management of all phases of crisis handling, from prevention and preparedness to response and recovery.

Research on the institutions and processes of security governance over time, across sectors and at various levels of authority is vital to placing this field of technical operations and specialised organisations in its proper context. The evolving judicial and ethical foundations of governance for societal security also need to be critically examined.

The sources of and obstacles to interoperability in its multiple dimensions need to be understood in various contexts. Examining this topic will involve comparative research on the constitutional, legal and administrative structures of the individual states. Another aspect of potential study is the variation in ethical and value-based foundations for security governance, where social cohesion, trust, openness and other factors may characterise the Nordic societies to a higher degree than many other societies. This difference could form part of the explanation of the Nordic dynamic behind enhancing resilience. Comparisons with most-different systems would be useful to pinpoint the essence of the Nordic profiles.

Capacities beyond the public sector are of crucial importance for resilience. Comparative experiences with engaging actors outside the public sector, such as private business ventures, civic associations, NGOs and individuals, should be examined.

The concept of societal security is widely applied within the Nordic region in relation to capacity-building. It is part of the historical social contract between those who govern and those who are governed. This relationship is manifested in the principle of the responsibility to protect. Such responsibility may also be said to lie in the hands of individuals and non-governmental actors.

The fundamentals of the evolving social contract that underpin community-building, social cohesion, a sense of belonging and trust in the public authorities are drivers behind resilience. One focus for research may be on the individual and small groups in society and the relationships between these actors. In order to be able to explain the behaviours of those who wish to exclude others and those who are excluded or have a sense of being excluded from the community, one needs to understand the fabric of a diverse, networked society where many feel secure. Such knowledge-building is part of a strategy to help to prevent acts of extreme violence that may erode open democracies and fundamental civil rights.

The societal effects of 20 years of reform along the lines of new public management (privatisation, outsourcing, just-in-time logistics and commercialisation) on the capacity for building resilience need to be examined in a multi-disciplinary research context. The goals of efficiency and economic

growth have been prominent in these reforms in the Nordic countries. The consequences for and costs to other fundamental values that characterise the Nordic societies remain to be analysed. For the purposes of this research programme, focus will be placed on the direct and indirect effects on societal resilience and on the protection of Nordic inhabitants.

Communication

Communication about risk in preparing for and during crises is fundamental. Research is needed on the role of the media as transmitters of messages and meaning, and as actors and stakeholders in dramatic emergencies. Research is needed to better understand the rapidly evolving role of the Internet and social media. Social media as a source of complexity in information management and communication has become an increasingly important topic.

Previous studies on the establishment of a common operational picture or a common situational awareness in emergency situations need to be revised in light of emerging media phenomena. Social media may be useful tools or channels for rapid, proactive information collection in crisis management. They may also overwhelm operators and high-level decision-makers already experiencing information overload. Comparative experiences and different methodologies for dealing with the evolving media landscape need to be examined.

The human factor in communication and the construction of meaning must be investigated in order to understand individual and group motivations and perceptions of fear, risk, and social inclusion or exclusion. The abstract concept of the general public is in reality a collection of unique individuals whose attitudes, values and tolerance to risk and hardship need to be better understood in a comparative perspective. The general public may be disaggregated into different age cohorts, genders, abilities and cultural backgrounds for the purposes of empirical research.

Learning

Learning processes during and after disasters or crises are not well understood and more research is called for. In particular, more knowledge is needed about how observed, and often documented, “lessons” are transformed into enhanced practices by various distinct actors responsible for future crisis management. Building resilience over time can be seen as a continuous learning process, resting on research-based knowledge that is turned into novel practices by people and organisations in authority. There have been too few studies on the adaptation-learning dynamic in the field of disaster management.

One aspect of the aftermath of national disasters, regardless of their origin, involves increased public accountability processes. In democratic societies governed by the rule of law, accountability is fundamental to public trust. Yet these processes may turn into “blame games” where the focus is less on accountability and more on finding a scapegoat, which is often inspired by the media. Comparative examinations of the processes taking place in the aftermath can lead to a better understanding of the ability to recover and learn from disasters.

Geographical domains

There are many emerging security challenges that need to be examined in the Arctic region and the High North, where conditions for emergency management are especially difficult, and where the vulnerability to natural and to manmade damage is high. Many stakeholders are increasingly active in the vast area around the North Pole, where commercial, environmental, energy, territorial and military interests are interwoven. Vulnerable local populations are under pressure from outside forces. As noted by former Minister Thorvald Stoltenberg in 2009 and the Nordic Council in 2012, the Nordic governments have a special responsibility for future development in the region. There is still time to address these issues in order to base strategic choices and institutional designs on research results. Many of the generic problem areas addressed above are relevant for a forward-looking debate on the rapidly transforming

Arctic. Existing international research on the Arctic deals with environmental, defence-related, legal and/or commercial issues; a more comprehensive approach to societal security that ties these concerns together needs to be explored. The proposed research programme on societal security may help to advance knowledge and enhance practices in this potential crisis zone, where the Nordic nations are on the front lines in terms of both hazards and opportunities.

The changing maritime conditions in the Baltic Sea Region are also a matter of concern to a number of actors, including the energy and shipping industries. Interests relating to environmental protection, transportation by sea, commercial viability, energy supply, criminality and military issues are interwoven in this region as well. The Council of the Baltic Sea States has dealt with these issues for 20 years with the help of various expert committees, and has encouraged research to support regional policy development. Adopted in 2009, the EU Strategy for the Baltic Sea Region identifies four pillars of cooperation, one of which is safety and security. The region may serve as a testbed for empirical research on many of the generic problems outlined above. Targeted comparative studies could be undertaken with cases drawn from both the Nordic and the Baltic Sea regions.

National programme profiles and potential stakeholders

National programmes on societal security already exist in several of the Nordic countries. A Nordic programme in the field should take into account and complement the national programmes, focusing on topics where Nordic collaboration will create added value. Just as the management of societal security is organised under different government portfolios in the Nordic countries, funding for research in the field stems from a variety of different entities.

In Sweden, mission-oriented research on societal security has been funded by the Swedish Civil Contingencies Agency (MSB) over the past ten years, and there are a number of currently active projects. MSB spends around SEK 120 million annually on funding of mission-oriented research in the field. In addition, the Swedish Research Council funds basic research in relevant fields of medicine, humanities, social, natural and engineering science, among others. The Swedish Governmental Agency for Innovation Systems (VINNOVA) supports needs-driven research and the development of strong research environments capable of attracting R&D investment and expertise. VINNOVA has co-financed the National Programme on Security Research 2007-2010 with MSB. The programme period has been extended through 2013.

In Norway, the Research Council of Norway administers funding for basic research, applied research and innovation activities. The Council administered the Research Programme on Societal Security and Risk (SAMRISK), which ran from 2006-2011 with a total budget of NOK 45 million. Financed by the Ministry of Justice and Public Security, the Ministry of Foreign Affairs, the Ministry of Transport and Communications, and the Directorate for Civil Protection and Emergency Planning (DSB), the programme covered research topics such as risk, critical infrastructure, extreme weather, learning, legal issues, disaster relief and prevention of terrorism. A new programme, SAMRISK II, is in the initiation phase. This programme will have a larger budget, NOK 100 million, and priorities within the programme will partially be based on the research needs identified through the first SAMRISK programme. In Finland, the Academy of Finland provides funding for basic research on relevant topics. Tekes – the Finnish Funding Agency for Technology and Innovation – administers the programme Safety and Security 2007-2013, allocating funding to technology development and innovation activities of relevance to societal security. The programme has a budget of EUR 160 million, of which Tekes contributes half.

In Denmark, the Danish Agency for Science, Technology and Innovation administers public funding for basic research and research in politically prioritised fields. In 2007, the Agency initiated an effort to map strategic research needs, which resulted in a basis for priority-setting for strategic research on social development. The principal research topics are energy, climate and environment, knowledge and education, production and technology, health and preventive health work, innovation and competitive ability, people and social development. Societal security is covered under several of the above-mentioned topics, although it is not a standalone topic.

In Iceland, a comprehensive national risk assessment was published by an independent commission in 2009. It is now being followed up by a multiparty parliamentary working group, whose mandate is to submit a proposal for elements of a future national security policy, including security research, by October 2012. Meanwhile, Icelandic researchers have explored civil security issues as part of EU and Nordic-funded projects.

Forms of funding Nordic research on societal security

The national research councils and civil protection agencies in the Nordic countries need to pool their efforts and collaborate with the Nordic Council of Ministers and NordForsk to create a “common pot” for co-funding over several years in order to realise the proposed research programme on societal security. The Nordic Council has repeatedly called for a joint research initiative in the field and would provide political support for such an initiative.

The proposed Nordic research programme should run for a period of several years, with start-up in 2013. It should support the establishment of and provide funding for at least one Nordic Centre of Excellence within the overall thematic area of societal security. If each centre is established with a different thematic focus, then the benefits of systematic, high-quality research of great relevance to the security of Nordic inhabitants could be obtained within a number of the topics addressed above.

Such centres should build on existing high-calibre research groups in the Nordic countries and cultivate links between selected groups. A higher degree of excellence and significant, targeted new knowledge can be achieved together by means of a multi-year programme that links together existing research groups. Each centre should have a multidisciplinary and problem-focused approach. Further training of doctoral students and post-doctoral research positions should be included in the activities to be funded. The centres should be very well networked with the wider international scientific community in their respective fields.

To encourage more intense cooperation among the centres and with other actors, funding should also be awarded for building research networks, organising thematic conferences and establishing joint Ph.D. courses. Institutions from at least three Nordic countries should be included in each activity. The inclusion of participants from other countries should be encouraged and may be financed by the Nordic partners.

In addition to conducting research of high scientific quality, the centres should establish enduring working relationships with different types of end users in the field of societal security. Emphasis should be placed on continuous dialogue with core actors in the rather fragmented user community. This could take the form of involvement in the education and training of operators and policy shapers at different levels of government. Activities to reach out to the informed public through the media and popular publications should be encouraged. For some centres, it may be more appropriate to forge links to the private sector or NGOs than to the public sector.



4. Appendix:

National programme profiles

The proposed Nordic programme must take into account existing national programmes. Administered by the Research Council of Norway, the Research Programme on Societal Security and Risk (SAMRISK) ran from 2006 to 2011. The final report from the programme inspired the overall direction of this proposal. The Finnish national security research strategy of 2009 identified themes and topics, but the planned programme was never funded. Denmark does not have a dedicated programme on security research, but the Danish Ministry of Defence allocates funding to the Danish Institute for International Studies (DIIS) for research on security-related topics. In Sweden, mission-oriented research on societal security has been funded by MSB for the past ten years, and there are many active projects. In Iceland, a national risk assessment was initiated in 2009 and is being followed up at the political level with a multiparty working group that has been given the mandate to propose a national security policy by October 2012.

The Norwegian SAMRISK programme covered several generic thematic areas:

- Risk analyses
- Preparedness and learning
- What is security?
- Humanitarian assistance
- Security and basic human rights
- Prevention of terrorism and other crimes
- Linkages to the EU Security Programme

The Research Council of Norway has started the process of planning a new research programme on societal security, with suggested start-up in 2013. The new programme will follow up the thematic areas recommended in the SAMRISK final report:

- Risks, critical infrastructure and learning
- Violent extremism and terrorist acts
- Information and communication
- Relationship between security and societal values such as openness, trust and democracy
- Control agencies and exertion of state power
- Disaster relief and crisis management
- Food, water, health security
- Security and vulnerabilities in the High North
- Need for qualified staff and resource capacity in Norwegian research institutions
- The planned programme will also take into account the EU's forthcoming security programme under Horizon 2020 and the NordForsk initiative.

The Finnish report from 2009 identified a number of priority topics:

- Security implications of climate change
- ICT security, critical infrastructure and the economy
- Cooperation between public authorities, security administration and the situational picture
- Public-private partnerships
- Security of society and communities
- Crime and terrorism
- Crisis management and the security of the international operating environment

The Danish Institute for International Studies (DIIS) has put special emphasis on the following topics:

- Danish defence and security
- European and transatlantic security
- Global security dynamics
- Fragile states, conflict resolution and capacity-building in Africa
- Weapons of mass destruction, non-proliferation and disarmament
- Tendencies within security

The current (through 2013) **Swedish** Civil Contingencies Agency (MSB) research programme on civil protection and emergency preparedness encompasses a number of thematic areas:

Area 1: • A safer society

- Societal trends
- Building a safer society
- The role of the individual in societal safety work

Area 2: • Risks, threats and vulnerabilities

- Emergencies and antagonistic threats
- Everyday emergencies and fires
- Hazardous substances
- Natural disasters
- Critical infrastructures
- Information security

Area 3: • Prevent, prepare, manage and learn

- Before, during and after
- Entities, responsibilities and organisation
- Tools for prevention and preparedness
- Management, collaboration and decision-making
- Information management
- Communication
- Training, exercises and learning
- International humanitarian operations



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