



**SECURITY LINK**

RESEARCH • EDUCATION • INNOVATION

## **NEWSLETTER NOVEMBER 2015**

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# TAMSEC 2015

24 November		25 November	
11:00-13:00	<p><b>Nordisk säkerhetsforskning, sal M4</b> Ordf: Christina Grönwall, Linköpings Universitet/FOI</p> <p>Tiominuters-presentationer av tio forskningsmiljöer: Security Link, CERCES, Europeiska CBRNE Center, CNDS, Security Arena, MSB, CIEMLab, Framtidens skadeplats/CARER, LUCRAM och CenCIP.</p>	10:45-11.45	<p><b>Paneldiskussion, sal M4</b> <b>Innovationsupphandling – ett instrument för att förbättra samhällssäkerhet och krisberedskap?</b> Ordf: Hans Frennberg, FOI</p> <p>Paneldeltagare är: Johan Lundström – Upphandlingsmyndigheten, Sten-Olov Södergård - Kustbevakningen, Ulf Dahlberg – SACS (Swedish Association of Civil Security), Bo Norrhem - Lindholmen Security Arena</p>
13:00-14:00	<b>Lunch</b>	11:45-13:00	<b>Lunch</b>
14:00-15:00	<p><b>Presentationer forskning, sal M4</b> Ordf: Sofie Pilemalm, Linköpings Universitet</p> <p>14:00-14:20 Positionering av räddningspersonal inomhus med signalstyrkemätningar 14:20-14:40 Anonymisering av personliga data fungerar inte i praktiken 14:40-15:00 Anomalidetektion i smarta elnät baserat på mönsterigenkänning</p>	13:00-14:00	<p><b>Presentationer forskning, sal M4</b> Ordf: Sofie Pilemalm, Linköpings Universitet</p> <p>13:00-13:20 H2020 Säkra samhällen 2016-2017 13:20-13:40 Samarbete föder innovation 13:40-14:00 Svensk teknik för att skydda noshörningar mot tjuvjakt</p>
15:00-15:30	<b>Kaffe</b>	14:00-14:30	<b>Kaffe</b>
15:30-16:45	<p><b>Postersession, Utställningshallen</b> Ordf: Christina Grönwall, Linköpings Universitet/FOI</p> <p>Forskarna presenterar sina arbeten. <i>Tilltugg och dricka serveras</i></p>	14:30-15:30	<p><b>Postersession, Utställningshallen</b> Ordf: Christina Grönwall, Linköpings Universitet/FOI</p> <p>14:30 Prisutdelning för bästa poster Forskarna presenterar sina arbeten.</p>

## TAMSEC 2015 - Technology and methods for civil security

We would like to invite you to be part of the latest research and development of technologies and methods that will meet the future needs in civil security and emergency response. Researchers, authorities, municipalities and industry meet each other to discuss current results, projects and new initiatives. TAMSEC 2015 will be part of 'Mötesplats samhällssäkerhet', Kistamässan, 24-25 November.

### Program TAMSEC

- **Research presentations:** there are currently about 10 centers in the area of civil security, spread throughout the country and with a different focus area. Take part in what they have to offer and hear about the highlights of their business.

- **Funding opportunities.** VINNOVA presents PCP (Pre-commercial procurement), with subsequent panel discussion. An overview presentation about the EU Framework Programme for Research and Innovation Horizon 2020 is given, with particular focus on future calls within security.

- **Ongoing research** is presented through presentations, which were selected to reflect some major ongoing activities, and through the accompanying poster exhibition which shows current achievements and projects.

The Strategic Research and Innovation Agenda for security that was completed in 2013 with the support and participation of, among others, VINNOVA and MSB, noted that there is a need for an established national meeting to develop civil security in Sweden. A few national platforms with different specializations exist but no established forum with long traditions, where a multi-disciplinary and cross-sector dialogue takes place.

It is therefore gratifying that the 'Mötesplats samhällssäkerhet' arranged by Kistamässan every two years, is being established as the natural meeting place for the industry, users and decision makers. By integrating TAMSEC in the meeting place, we hope to provide opportunities for even researchers in the field to participate in the dialogue on how the Swedish civil security and emergency response can be developed for the future.



## NEWS ABOUT SECURITY LINK

### [Security Link judged positively in the evaluation of the strategic research area initiative 2010-2014](#)

During 2014, the five funding organizations VR, VINNOVA, Forte, FORMAS and Energimyndigheten, have on behalf of the Swedish Government, conducted an evaluation of the Strategic Research Areas, including Security Link, to determine the future financing of the strategic research areas. The overall evaluation was conducted by an expert panel, consisting of six internationally renowned scientists and additionally 28 external reviewers, who assessed the outcomes of the research in the strategic research environments. On 30 April the result of the recommendations to the Swedish Government was announced and Security Link was judged positively with the following comments:

- The overall grading of research output for SäkLiu in an international perspective is reaching international standards.
- The overall grading of utilization and benefits in an international perspective for Security Link has developed with great satisfaction.
- The overall grading of collaboration in an international perspective for Security Link is effective in several dimensions.
- The overall grading of integration with education for Security Link is under satisfactory development.
- The overall grading of management for Security Link is on target and developing with high standard.
- Some other highlights from the text were:
- The research environment Security Link has an outstanding group of researchers from LiU, FOI, KTH, and Chalmers
- .....having great potential for becoming world class in the coming years thanks to an excellent strategy which made use of the SRA funding instrument.
- ..... receives guidance from its industry board and has good bi-lateral collaborations with several industrial partners
- .... the research at Security Link is effective in creating new business
- In education, its graduate school, Forum Securitatis, has been successful with 20 current PhD students.....
- .... has clearly contributed to strengthen a community on crisis management systems

The funding organizations recommend that Security Link gets continued funding on the same level.

For more information, see

<https://publikationer.vr.se/produkt/evaluation-of-the-strategic-research-area-initiative-2010-2014>

### [Security Link Yearly Report 2014 is now available](#)

The [Security Link Yearly Report 2014](#) is the first of its kind. It describes the accomplishments of Security Link during 2014.

The highlights in short:

- Security Link partners have attracted external funding for 89 different research projects. Of these, 44 were funded by the EU framework program.
- During 2014, 62 scientific peer - reviewed publications in refereed journals, 73 peer - reviewed conference papers and 42 other scientific publications connected to Security Link were published.
- The yearly Security Link workshop took place 20 November 2014 in Linköping.

- Since January 2014, the multidisciplinary graduate school Forum Securitatis has been a permanent part of Security Link and is managed and financed by the Swedish Defence Research Agency (FOI) and Linköping University (LiU). During 2014, a total of 18 PhD students have been enrolled in the graduate school and a total of 2 doctoral degrees have been obtained.

## FORUM SECURITATIS

Forum Securitatis has recently renewed its website. You will find a comprehensive description of the courses and a preliminary course schedule.

These courses will provide the students with cutting-edge knowledge about the field of security in society and crisis management.

A highlight of Forum Securitatis is the *Mobility Program* which offers to opportunity to perform a part of the research project in industry, a public authority, or to spend a period at a research institute abroad. Please, visit our updated

website at: <http://www.security-link.se/education/graduate-school/> or contact Christina Grönwall, Director Forum Securitatis for more information, email: [christina.gronwall@foi.se](mailto:christina.gronwall@foi.se).



An overview of courses offered by Forum Securitatis:

<p><b>Swedish crisis management: Crisis leadership and coordination</b> 1+4+1 days, 2+2 ECTS</p>	<p><b>IT and cyber security in society</b> 1+2+1 days, 1+2 ECTS</p>
<p><b>Command and control systems and resilience engineering</b> 1+2+1 days, 1+2 ECTS</p>	<p><b>Robust wireless communication systems for safety and security</b> 1+2+1 days, 1+2 ECTS</p>
<p><b>Ethics, surveillance technologies and integrity</b> 2 days, 2 ECTS</p>	<p><b>Sensors for increased security &amp; crisis management</b> 1+2+1 days, 1+2 ECTS</p>
	<p><b>Sensor data- and information fusion for crisis management</b> 1+2+1 days, 1+2 ECTS</p>

## SECURITY LINK NEWS ITEMS

### [RICS centre on Resilient Information and Control Systems officially started](#)



The MSB granted project RICS centre on Resilient Information and Control Systems started officially at September 1, see


[www.rics.se](http://www.rics.se) for more information.

### [Award for Excellence for paper by Dr. Sofie Pilemalm](#)



Dr. Sofie Pilemalm's paper "Enabling organizational learning from rescue operations—the Swedish Rescue Services Incident

Reporting System" published in International Journal of Emergency Services has been selected by the journal's editorial team as a Highly Commended paper in the 2015 Emerald Literati Network Awards for Excellence. Dr. Sofie Pilemalm is associate professor in Informatics and the director of [CARER](#). All the winning papers are published on the [Emerald Literati Network Awards for Excellence website](#).

 [20 Million SEK to CARER-The Center for Advanced Research in Emergency Response](#)  
 CARER-The Center for Advanced Research in Emergency Response, has received funding with 20 Million SEK from the Swedish Civil Contingencies Agency (Myndigheten för samhällskydd och beredskap, MSB) to perform research focusing on effective emergency response.

How can the emergency response with accidents be strengthened in the future?

These are some of the issues that will be studied in a new research initiative funded by the MSB for 20 Million SEK over five years.

Researchers at Linköping University have been commissioned to build a new research environment in the field "Effective emergency response to future incident site".

"We believe that the evolution towards a more dynamic and flexible approach in how rescue and relief resources are organized and alerted to accidents, and we also believe that it is increasingly common to use players outside the professional emergency services," says Sofie Pilemalm, professor and director of the Research Centre CARER at Linköping University.

The work will be conducted in collaboration with rescue actors of various kinds, SOS Alarm, municipalities, government agencies and others. By developing new practice-oriented knowledge in this area, society can both save lives and reduce the damage to people, property and infrastructure. The research is expected to start in the autumn of 2015.

#### Contact

Sara Brunnberg, forskningsamordnare, MSB:s forskningsenhet. [Sara.brunnberg@msb.se](mailto:Sara.brunnberg@msb.se)

Sofie Pilemalm, professor, Linköpings universitet. [Sofie.pilemalm@liu.se](mailto:Sofie.pilemalm@liu.se)

### [Spin-off company in drinking water security started](#)

A new spin-off company from LiU, sense2bits AB, has been started by two researchers from the Security Link research environment, Ass. Prof. Mats Eriksson and Prof. Fredrik Winquist, together with two entrepreneurs. The company will commercialize sensor technology for drinking water safety and security.

### [Security Link researcher winner of Stephen O. Rice Prize Paper Award](#)

Professor Erik G. Larsson (LiU, ISY, Security Link) has together with Hien Quoc Ngo and Thomas L. Marzetta been selected winners of the 2015 Stephen O. Rice Prize Paper Award in the Field of Communications Systems.

The awarded article is “Energy and Spectral Efficiency of Very Large Multiuser MIMO Systems”, *IEEE Transactions on Communications*, Vol. 61, No. 4, April 2013, pp. 1436-1449.

Link:

<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=6457363>

### [Terrorhunt in the sewage system \(Process Nordic 2015-04-20\)](#)

Hans Öennerud, scientist from FOI and Security Link, is recognized for his work with tracking illegal manufacturing of homemade bombs in the EU project EMPHASIS.

“Terrorjakten i avloppssystemen” - Only in Swedish.

### [#Five myths about illegal wildlife trafficking \(The Washington Post 2015-04-17\)](#)

Johan Bergenäs (Expert and Strategic Advisor for Security Link, and Deputy Director of the Managing Across Boundaries Initiative at the Stimson Center) and Monica Medina (Senior Director for international ocean policy at the National Geographic Society) discuss environmental crime in the Washington Post.



*An anti-poaching ranger patrols the Ol Pejeta Conservancy near Nanyuki, some 200km north of Nairobi, Kenya. (Dai Kurokawa/EPA)*

Poaching has a long history in the United States and abroad, with armed conflicts dating back to the Oyster Wars of the 1800s. But the illegal wildlife trade has skyrocketed in recent years, and the threat of species loss looms large. The

trade has changed as it's grown, and misconceptions about who is perpetuating it and why abound. As Earth Day approaches, let's dispel some myths about wildlife trafficking.

Read the full length opinion piece in the Washington Post here: [“Five myths about illegal wildlife trafficking”](#).

### [Protects against hackers \(Mera Linköping 2015-04-14\)](#)

Exercises to meet IT security threats are carried out in the FOI Cyber Security Lab. David Lindahl, research engineer at FOI and related to Security Link in the growing field of cyber security, explains how the courses and exercises can increase resistance to attacks.

“Skyddar mot hackers” - Only in Swedish.

### [FOI develops radar technology for security solutions \(Security User 2015-03-27\)](#)

New technology for security checks are being developed at FOI. Robert Malmqvist (FOI researcher linked to Security Link in the field of sensors) is interviewed about the SSF Project MEMS THz Systems that research on a system that allows you to see through fabrics to detect dangerous objects. Such a system could for example be used to quickly identify threats in places where large crowds passing by.

“FOI utvecklar radarteknik för säkerhetslösningar” - Only in Swedish.

### [Possibility to create a national research infrastructure for cyber security research at FOI](#)


The Swedish Research Council (Vetenskapsrådet) has granted FOI a planning grant to develop an application to make the lab CRATE in Linköping into a national infrastructure for research in cyber security.

– This means that we will meet the other universities and research institutes within the field to inform them on what we can offer, but

also to hear what requirements they have for supporting our application (Detta innebär bland annat att vi kommer att träffa landets universitet och andra forskningsaktörer inom området för att informera dem om vad vi kan erbjuda, men också höra vilka önskemål de har på oss för att stödja vår ansökan), says Theodore Somme City, Principal Investigator on FOI and related to Security Link.

[“IT-attacker simuleras i FOI-labb”](#) Elektronik i Norden (2015-03-20)

[“FOI:s labb för cybersäkerhetsforskning håller världsklass”](#) (2015-03-25) - Only in Swedish.

 [Gunilla Carlsson: Östergötland saves rhinos \(Corren 2015-03-17\)](#)



Gunilla Carlsson. Tidigare biståndsminister (M). Bild: Johnny Gustavsson

The former Swedish Minister for International Development Cooperation Gunilla Carlsson draws attention to the project Smart Savannahs in an editorial in Corren.


*Kolmården var därför en perfekt mötesplats när Stimson, Linköpings Universitet och myndigheten Vinnova bjöd in för att finna smarta lösningar. Genom att jobba tillsammans, i partnerskap, med tydligt uppdrag: rädda noshörningarna. Med gott ledarskap under professor Fredrik Gustafsson, LiU, kan även näringslivets tekniska förmåga komma till användning. Vårt läns skickliga utvecklare och företagare i bland annat sensorteknik, säkerhetsföretagets Saabs kunskaper i hur man övervakar stora områden, och insikter om hur människor kan hantera system (också det genom universitetets forskning) kan erbjuda en lösning; i detta fall i*

*parken Ngulia i Kenya. Konceptet kallas Smarta Savanner och går ut på att göra en mer effektiv övervakning över stora områden, för att bättre skydda djuren och dess skötare.*

*Förutom att jag är stolt över att se de planer jag hade som biståndsminister, att lyfta Östergötlands roll i global utveckling genomförs, så blir jag inspirerad av hur samarbetet flyter mellan näringsliv, myndighet och akademi. Östergötland är en del av ett större sammanhang, på Kolmården kan behov formuleras utifrån viltvården och de afrikanska förutsättningarna. Där kan tekniken provas för att sedan ge marknadsmöjligheter inte bara för företag utan också för vårt unika sätt att se hur människor och djur behöver varandra. På sikt kan detta också bli ett verkligt exempel på hur komplext, och enkelt, det kan vara att förhindra konflikter och övergrepp.*

Read the full length editorial in Corren:


[“Gunilla Carlsson: Östergötland räddar noshörningarna”](#) - Only in Swedish.

 [New technology will save rhinos \(Norrköpings Tidningar 2015-03-03\)](#)

The kickoff of the project “Smart Savannahs” took place at Kolmården zoo earlier this week. Researchers and politicians attended to discuss how Sweden can support the struggle to preserve endangered animals and prevent poaching.

[“Ny teknik ska rädda noshörningar”](#)

*The article and the segment that is included is in Swedish.*

 [New technology will prevent bombings \(Dagens Nyheter 2015-02-12\)](#)

The EU heads of government gathers today to try to agree on a tough stand against terrorism. Mapping of air passengers and strengthening border protection is on the agenda. Meanwhile a Swedish research project is aiming to make it



difficult for terrorists to make home-made bombs.

– It’s about how we can prevent someone from making bombs of things that can be bought in stores, says Henric Östmark, research director at the Swedish Defence Research Agency (FOI). [“Ny teknik ska sätta stopp för bombdåd”](#)

*The article is in Swedish.*



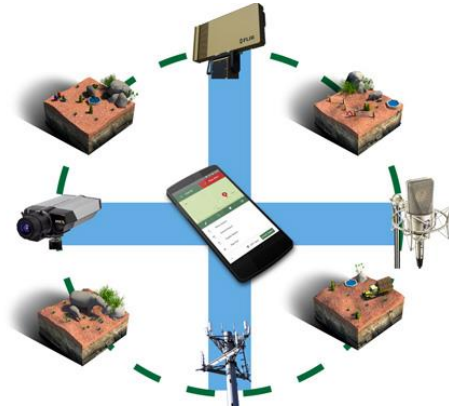
*Photo: STEFAN SÖDERSTRÖM / XP / TT*

Henry Östmark is tied to Security Link, and the Security Link projects mentioned in the article are [PREVAIL](#) (additives that hinder bomb-making), [LOTUS](#) and [EMPHASIS](#) (sensors to find the manufactures of home-made bombs).

[#Smart Savannahs gives hope for rhinos \(LiU News 2015-02-09\)](#)

VINNOVA grants Security Link 1.5 MSEK for project *Wildlife Security: Smart Savannahs*. The project is a strategic initiative with Axis, Fibersystem, Flexenclosure, FLIR, GPS Perimeterlarm, HiQ, Kolmårdens djurpark, Mowanamedia, SAAB, Termisk Systemteknik and Superfly as partners.

Poaching of endangered animals, such as rhinos and elephants, must be stopped before it is too late. Twelve Swedish companies, Vinnova, Linköping University, Stimson Center and international partners, is building a new standard for the protection of endangered wildlife and natural resources. Project *Smart savannas*, a Swedish concentrated effort to save rhinos and elephants, financed by Vinnova and companies like Axis, Fiber Systems, Flexenclosure, FLIR, GPS Perimeterlarm, HiQ, Kolmarden Zoo,



Mowanamedia, SAAB, Thermal Systems Engineering and Superfly is now to start.

[“Smarta savanner hopp för noshörningar”](#)

*The article is in Swedish.*

Smart Savannahs was also in the news in:

- Aftonbladet: [“Stoppat tjuvskytte gör världen säkrare”](#) (2015-03-24) - *Only in Swedish.*
- *Ingenjören* the official magazine of The Swedish Association of Graduate Engineers (Svenska Ingenjörer): [“Smarta algoritmer räddar noshörning”](#) (2015-02-19) - *Only in Swedish.*

[Security Link expert Johan Bergenäs comments on the new Obama National Security Strategy \(Washington Examiner 2015-02-07\)](#)



*(AP Photo/Evan Vucci)*

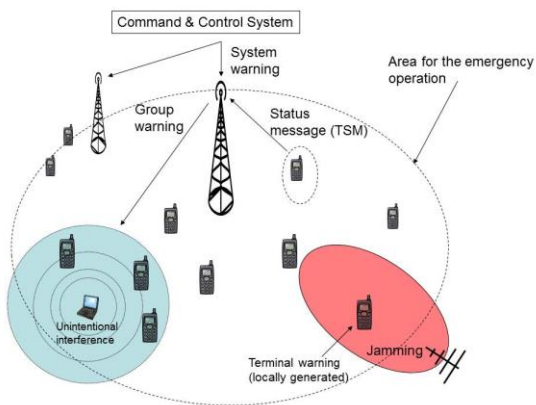
Security Link expert Johan Bergenäs comments on the new Obama National Security Strategy in Washington Examiner: “It’s definitely a stay-the-course approach because a long-term

strategy with sustained military and economic tools is what's required"

Read the article in the Washington Examiner here ["Obama: We're on track against the Islamic State"](#)

### [Patent granted for digital radio terminal](#)

Security Link connected researchers Kia Wiklund, Peter Stenumgaard and Erik G Larsson have been granted a patent (SE 537105) for their digital radio terminal with a unit for early warning and a digital radiosystem including such terminals.



### [New report: Mapping of the national research position in the field of CBRN](#)

Security Link has participated in the work leading to a new report on CBRN research (Chemical, biological, radiological and nuclear threats) written by the European CBRNE center commissioned by MSB.

Download the report [here](#) (only in Swedish).