SIAM
SECURITY IMPACT ASSESSMENT MEASURES

Partners

Project Group Constitutionally Compatible Technology Design, **University Kassel**
Centre for Technology and Society, **Technical University** Berlin
Digital Imaging Research Centre, **Kingston University** London
Law, Science, Technology & Society Studies, Vrije Universiteit **Brussel**
Global Urban Research Unit, **Newcastle University**
Higher Institute on Territorial System for Innovation Torino, Italy
Interdisciplinary Centre for Technology Analysis & Forecasting, **Tel Aviv University**

Case studies:

Berlin Brandenburg International Airport (BER), Germany
Ben-Gurion Airport Tel Aviv Israel
Metro of Turino (Metropolitana Torino), Italy
Transport for London, UK

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www.siam-project.eu

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Supporting Security Technology Assessment Procedures

SIAM provides security managers, security operators and transport and civil aviation authorities with guidelines and tools to plan Security Technology Assessment Procedures that take into account social, ethical and legal preconditions and effects of security technologies deployed at airports and in public underground transport systems.

SIAM `s research is focused on how decision makers do assessments of security technologies. The focus here is on the implicit and explicit methods and criteria that they use for assessments. Based on this data, we develop models that will help decision makers to bring more reflexivity into assessment procedures by applying methods and criteria that are based on a mutual understanding of the stakeholders involved in doing assessments. This will help them to better cope with the complexity of their tasks.

Promoting normative reflexivity

It is SIAM`s objective to promote the normative reflexivity of security technology assessments through main-streaming the following sets of questions in security assessment procedures: Are security technologies and -measures

- capable to contain current and future criminal actions and/or threat scenarios?
- capable to avoid freedom infringements?
- operating with effective safeguards to protect legal requirements like accountability?
- compliant with legal frameworks?
- compatible with future technological developments?
- invoking any culturally specific impacts?

Work package 1-13

SIAM is subdivided into 13 Work packages

- WP 1 - Project Management
- WP 2 - Security technology innovation journeys
- WP 3 - Impact analysis on criminal actions liegt;
- WP 4 - Regime interaction and freedom infringements
- WP 5 - Future technologies
- WP 6 - Threat scenarios
- WP 7 - Criminal actions – patterns & places
- WP 8 - Freedom scenarios
- WP 9 - Legal frameworks – Regulative Techniques
- WP 10 - Cultural differences
- WP 11 - The SIAM database
- WP 12 - The Security Impact Assessment Measure
- WP 13 - Dissemination

Duration: February 2011 – February 2014

Building an assessment support system

All partners in SIAM are working to build an assessment support system that incorporates analysis from case studies at the airports in Berlin and Tel Aviv and the underground transport systems in Torino and London. The system will provide users with representations of knowledge derived from the case studies, from literature surveys and expert workshops.

1. As a first step, the partners are engaged in building typologies representing the knowledge and to program a database that maps the semantic relations of those typologies. This is the basis to make knowledge about who is involved at what point of assessment procedures.
2. As a second step, models of
   - Threat scenario and crime pattern methodologies,
   - Counter-Infringement methodologies,
   - Legal frameworks,
   - Prospective technological innovations, and
   - Techno-normative issues related with security technologies
   - will be built that visualize the issues at stake, descriptions of the role of the stakeholders involved, lists of criteria that can be used to plan assessments.

Publications

- M. Hildebrandt & A. Rouvroy (2011) Law, Human Agency and Autonomic Computing. The Philosophy of Law Meets the Philosophy of Technology. Routledge
- S. Gutwirth, Y. Poullet, P. De Hert & R. Leenes (2010) Computers, Privacy and Data Protection: An Element of Choice. Springer
- E. Mordini & P. De Hert (2010) Ageing and Invisibility, IOS Press, The Netherlands

Recent Events

Kick Off in Berlin

All SIAM partners met in Berlin in March for the project kick off. Seven research institutions from Belgium, Germany, the United Kingdom, Israel and Italy are cooperating in the project. The project will run until January 2014. The objective of the project is to produce a tool that increases the reflexivity of security technology assessment procedures by mainstreaming criteria to assess legal, ethical, cultural, accountability issues and the effectiveness in countering threats of security measures and technologies at airports and in urban public transport networks. The partners are conducting research at, and in cooperation with, the airports in Berlin and Tel Aviv, and the transport operators in Torino and in London.

1st project meeting in Newcastle

All partners met again in September in Newcastle and discussed the progress that has been achieved so far, the work schedules and methodological challenges in building an assessment support system. The partners agreed to hold regional user forums in order to test first versions of the tool until the middle of next year and to hold a first international user forum with managers, operators, officials, legislators and civil society representatives in the autumn of 2012.

Tel Aviv

Project partners visited in October the Ben Gurion Airport site in Tel Aviv (Israel) at which the respective security managers presented the security processes at the airport. **top**

Conferences

09/12/2011 - Festos

Final FESTOS Conference – Brussels, Belgium on 9 December 2011 (provisional date)Showcase of FESTOS results and achievements. **Link**

25-27/01/2012 - CPDP Conference

Since 2007 LSTS co-organizes the Computers, Privacy & Data Protection Conferences that have become a 'must' for all those involved in legal, technical, philosophical and social science research into computing, privacy and data protection. **Link**

SIAM consortium Feb. 2012

It will hold their next project meeting in Tel Aviv in February 2012 to discuss and plan the following 6 months of SIAM.

Results

Results

In work package 2, called "Security Technology Innovation Journeys", the partners have drafted literature reviews and starting interviewing experts at the case study sites. A typology of security technologies has been constructed that functions as a typology for all work packages and for the assessment support system.

In work package 6, called "Threat Scenarios", the partners have reviewed past security events at airports and in public underground transport systems and started to develop new threat scenarios. The scenarios will be validated on expert work shops in the coming months. Two more work packages are currently being launched. They will be considering Future Technologies (work package 5) and Freedom Infringements (work package 4).

Ongoing activities

A heavy emphasis is currently being placed on the design of the assessment support system that SIAM is working to develop. As a first step, security managers, operators and legislators have been identified as the core user group of the tool. Currently the scope of the system is being defined precisely in terms of the questions that the tool will help to answer.

Introducing Partners and their task

Department 'Security-Risk-Privacy', Technical University Berlin, Project Coordinator

At the department 'Security, Risk, and Privacy' we analyze organizational, political, and technological developments, which affect and constitute social perception and operational arrangement of e. g. security. One of the department's central concerns is to integrate political and socially acceptable as well as user-friendly design options into the development of security technologies. Special emphasis is laid on an integral approach of the dimensions human - technology - society. At TUB, four researchers (Leon Hempel, Lars Ostermeier, Tobias Schaaf, Dagny Vedder) are coordinating and managing the project and leading work packages on security technology and innovation journeys (ongoing), on crime patterns, and on building the assessment support system (starting 2012). **Link**

Global Urban Research Unit, Newcastle University

The Global Urban Research Unit is a multi-disciplinary research center at Newcastle University concerned with developing critical understandings of cities and urban life in all forms. Housed within the School of Architecture, Planning and Landscape, GURU is comprised of over 25 scholars supporting a variety of active programmes of research. Newcastle University's contributions to SIAM are managed by Dr. Philip Boyle, Research Associate in the Global Urban Research Unit, in association with Dr. David Murakami Wood, Associate Professor and Canada Research Chair (Tier II) at Queen's University, Canada, and Dr. Steven Graham, Professor of Cities and Society at Newcastle University. This team is directly responsible for Work Packages 3 and 4 of the project, of which WP Four is under active development at the present time. Current research activities include interviews with representatives from the UK Department for Transport, the British Transport Police, and Transport for London scheduled for October as part of WP2 of the project. **Link**

Project Group Constitutionally Compatible Technology Design, Kassel University

The Project Group Constitutionally Compatible Technology Design (provet), headed by Prof. Dr. Alexander Roßnagel, is carrying out interdisciplinary research projects on the legal issues arising in the field of information and communication technology. Its 19 members specialize in methods of technology design that are compatible with legal standards. Provet is part of the Research Center for Information Technology Design (ITeG) at Kassel University and was founded in 1986 in Darmstadt, but moved to Kassel in 1998.

Its major contribution to the SIAM project is and will be its expertise on legal matters concerning the design and use of technology. Therefore Kassel has been named work package leader of WP 9 of the project which deals with the legal framework of security measures and technologies.

Kassel`s contribution to the SIAM project is carried out by Christian Geminn. Current activities include support for WPs 5 & 6 after the conclusion of Kassel's contribution to WP 2 in August. **Link**

Digital Imaging Research Centre at Kingston University

The Digital Imaging Research Centre (DIRC) at Kingston University is one of the largest computer vision groups in the UK, with internationally recognised expertise in visual surveillance, medical imaging and intelligent environments. In the past, members of the group have worked with the Home Office, the Police and transport operators across the UK and Europe.

In the SIAM project, a primary area of DIRC's work is concerned with the development of structured representations of the manifold aspects of knowledge involved in the domain of SIAM, and with finding and modelling the interrelations between these knowledge aspects.

Kingston University has been assigned leader of WP 11, which is about the design and implementation of a computational system for supporting the assessment of security measures and technologies. This system will integrate many of the research results of previous work packages into a toolkit, usable by different stakeholders, such as investment decision-makers and policy setters.

Within DIRC, the main contributors involved in the realisation of the SIAM project are Graeme Jones and Ronald Grau. Current activities include support for WPs 2 & 5, and 6 and preparation of the deliverables of WP2. **Link**

Higher Institute on Territorial Systems for Innovation

SiTI – Istituto Superiore sui Sistemi Territoriali per l'Innovazione (Higher Institute on Territorial Systems for Innovation), is a no profit association set up in 2002 between the Politecnico di Torino and the Compagnia di San Paolo, to carry out research and training oriented towards innovation and socio-economic growth. SiTI activities are focused on the following sectors: Logistics and transport, Environmental heritage and urban redevelopment, Environmental protection. Building on the various skills available within the Politecnico di Torino, SITI augments its capacity by cooperating with numerous researchers and specialists and other Universities and national and international research centers. SiTI carries out projects funded by public and private institutions and it is co-financing partner in several research and territorial cooperation projects, funded by the European Union.

The main role of SITI in SIAM project is to support the reconstruction of Innovation Journeys of Security Technologies, to help in gaining a perspective on future technologies and measures' scenarios, and to analyze the threats scenarios that security decision makers have to deal with. **Link**

Law Science Technology & Society at Vrije Universiteit Brussel

The interdisciplinary Research Group on Law Science Technology & Society at the Vrije Universiteit Brussel (LSTS) was established in November 2003 as a result of the transformation of the Centre for the Interaction Law & Technology (CIRT), which carried out research in the field of computer law (privacy and data protection, EDI, computer crime, intellectual property, ...), criminal investigation and police law, environmental law, the relationships between law and psychiatry, etc. since the early 1990s.

LSTS has a well-established reputation in research concerning privacy and data protection, profiling technologies, ambient intelligence and 'autonomic computing' in a broader sense. Next to this LSTS research deals with the regulation of technology; with the impact of security and crime-fighting policies upon human rights; with issues at the crossroads of intellectual property law and science and technology; with the impact of profiling techniques and statistics on the law and the individual; with the participation of the citizens, civil society and publics, into science and technology policies (participatory Technology Assessment, rethinking representation) and with the legal and ethical issues relating to the commodification of human body material (focussing especially on organ transfer, biobanking and patenting of human body material). The team has been involved in internationally networked research projects and publishes widely.

LSTS STAFF WORKING ON SIAM:

- Professor Serge Gutwirth is Director and Initiator of LSTS, and full professor of Human Rights, Comparative law, Legal Theory and Methodology at the Faculty of Law and Criminology of the Vrije Universiteit Brussel (VUB), where he studied law, criminology and also obtained a post-graduate degree in technology and science studies.
- Professor Mireille Hildebrandt leads the LSTS team on SIAM, she is a legal philosopher and a lawyer, Associate Professor of Jurisprudence at the Erasmus School of Law, Rotterdam and a full professor of Smart Environments, Data Protection and the Rule of Law at Radboud University Nijmegen.
- Kristof Verfaillie has degrees in criminology European criminology and criminal justice systems and is finishing his PhD on public opinion and legitimate criminal justice at Vrije Universiteit Brussel.
- Rosamunde Van Brakel holds degrees in educational science and criminology and she is preparing a PhD on pre-emptive surveillance at Vrije Universiteit Brussel. In the next Newsletter we will provide a more extended account of the LSTS staff that is working on SIAM. **Link:**

Interdisciplinary Centre for Technology Analysis and Forecasting at Tel-Aviv University, Israel

Founded in 1971, ICTAF is a leading institute in technology forecasting, foresight, assessment and long-term planning, and is very active in the international community. The multidisciplinary center taps the expertise of world-class scientists at Tel Aviv University and other well-known research establishments to create a core body of researchers with unrivaled knowledge in a diverse range of fields in the exact sciences and engineering, geography, economics, education and social sciences, information technology and communications. ICTAF is active in the security FP7 program. It is the coordinator of the FESTOS project dealing with future terror threats. It also leads the PRATIS research projects on the future perception of Privacy. In SIAM the ICTAF team is responsible for conducting a threat analysis and scenario building (WP6). **Link**
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SIAM in China	Impressum

SIAM was presented in China for the first time. The 2. General Aviation Convention CIGAC 2011 was held in Xi'an, Province Shaanxi, China, from 13. – 17.10.2011. The General Aviation is up to now extremely limited in China, still a liberalization will take place during the next years to come. The chances connected with this development are extraordinary. Experts see a similar growing market like in other luxury fields, like in car and property markets.

The market for airplanes for private and business people will be opened in 2012, and, so the experts, will expand dramatically. In addition this will be connected with the build up of airfields and small airports as well as all services around these new activities. And of course, there is enhanced security also needed.

So the SIAM project was presented on a exhibition stand of the Berlin-Brandenburg Aerospace Allianz, together with another 15 exhibitors. This should serve as a first step to give notice about the SIAM-activities and to analyze potential chances for cooperation in China. For further questions and information please contact **Andreas Timmermann, BBAA**

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