The mission of MSB is to enhance and support societal capacities to *prepare for*, and to *prevent* emergencies and crises. When one does occur, we support the stakeholders involved by taking the right measures to control the situation.
Information Assurance Section

Overall governmental responsibility for society’s information assurance issues in Sweden

Incidence Response

Since 2011: CERT-SE

Exercises

Systematic Information Security

Critical Information Infrastructures

Secure Communications

Health Care

Standardization

Education and Research
Sample Activities

Security in Cloud-Computing

Secure Mobile Computing
Information Security and Integrity in the Healthcare Sector
Today’s children deal with a large amount of digital informations. ICT and internet is heavily integrated into their lives. However, they do need knowledge and tools in order to handle the challenges and risks that comes with the information society.
I don’t know what a security backup is.

I use the same password and username for several different accounts.

I would talk to my teacher if I found something threatening on the Internet.

64%

77%

22%

81% talk to their parents
"IT-based systems manipulating the real world"

Industrial Control Systems
Process to be controlled
Acutator
Sensor
Controller (PLC, RTU)
Human Machine Interface
Connect to Administrative Network
Geographically Distributed Systems

Industriellt informations- och styrsystem

Ibilden visas den principiella uppbyggnaden av ett kontrollsystem. Den fysiska processen kan innehålla ett stort antal mätstationer som kan vara spridda över ett flertal anläggningar över stora geografiska områden.

1. Lokala obemannade system
De lokala systemen samlar in signaler från sensorer och sänder ut styrsignaler till processgränsnittet.

2. Dataöverföring via nätverk
Mellan de lokala och centrala systemen skickas information via trådlösa nätverk och olika typer av färsta nät. Nu kommer det att mer mot öppna lösningar som Internet.

3. Centrala bemannade system
Här sker själva drifttagningen av systemet

Exempel på liknande system
Samma uppbyggnad av kontrollsystem finns förekommer på många håll.
Cultural Clashes

Process engineers know nothing about IT

The IT-people know nothing about running a process
Almost 4% of BNP goes into research

75% of research carried out in the private sector
Research in Sweden Related to Information Security

Approximately 150 researchers in academia and research institutes are working on information- or it-security related topics.

Almost 50% of them hold a Ph.D.

Research is distributed over approximately ten Institutes and Universities.
Typical Research Areas

Security in Industrial Control Systems, SCADA
Security in Smartgrids
Cryptography
Network Security
Security Metrics
Security Culture
Traditionally, Swedish research in information-security has been biased towards technical aspects.

SECURIT will study:

- Security-relevant characteristics of humans and organizations
- The effect of applied social measures
Research Strategy

Information Security is an interdisciplinary field

Each sector cannot afford big projects on their own

By coordinating the sectors we can reach a critical mass
International Research Collaborations
Projects supported by MSB

**TTA 3 – Usable Security**
Implicit and Continuous Mobile User Identification/ Authentication Using Smartphone Sensors

**University of Houston**

**TTA 6 – Modeling of Internet Attacks**
Advanced Situation Awareness of High Impact Malware Attacks Against the Internet Routing Infrastructure

**Columbia University**

**TTA 8 – Incident Response Communities**
Improving CSIRT Skills, Dynamics and Effectiveness

**Dartmouth College**

**TTA 9 – Cyber Economics**
Reducing the Challenges to Making Cybersecurity Investments in the Private Sector

**University of Maryland**