

ENCS The European Network for Cyber Security

A not-for-profit European Public Private Partnership on cyber security for critical infrastructures Initial focus: smart grids and process control, to be extended to other critical infrastructures

Bram Reinders



Securing critical European infrastructures

European context

Effects: Potential fall-out of systems lead to huge damage



Focal Problem: How to protect and secure critical European common infrastructures.



Causes: Increased insecurity in ICT infrastructure due to hackers, terrorists, current weaknesses within those infrastructures etc.

The ENCS initiative

Mission: Your Partner for securing critical European infrastructures



Purpose: Decrease risk levels for Smart grids and process automation in public-private domain. Set industry standard. Making impact!



Outputs/immediate results: Sustainable network of people & organisations, services for Information & knowledge sharing, R&D, Testing and Education services.



Activities: 4 Service Lines. The realisation schedule in the **roadmap**

ENCS Objective & Background

A Unique position: A European not for profit public-private-partnership on cyber security of smart grids and process control domain is important. At this moment such an initiative does not exist.

We have a unique opportunity to connect initiatives

- Between institutes in the field of Cyber Security
- Between Private and Public stakeholders
- Between end-users and vendors
- Between critical infrastructure, research institutions and academia
- Between sectors dealing with cyber security

We have a unique opportunity to provide new input

- By setting standards to improve cyber security in the NL and EU
- By adding a program to raise cyber security awareness at management level

Due to the Private Public Partnership we are able to respond quickly to the rapid developments in the field of cyber security and spread this knowledge to other organizations, but also stimulate short- and longtime research.

ENCS Profile

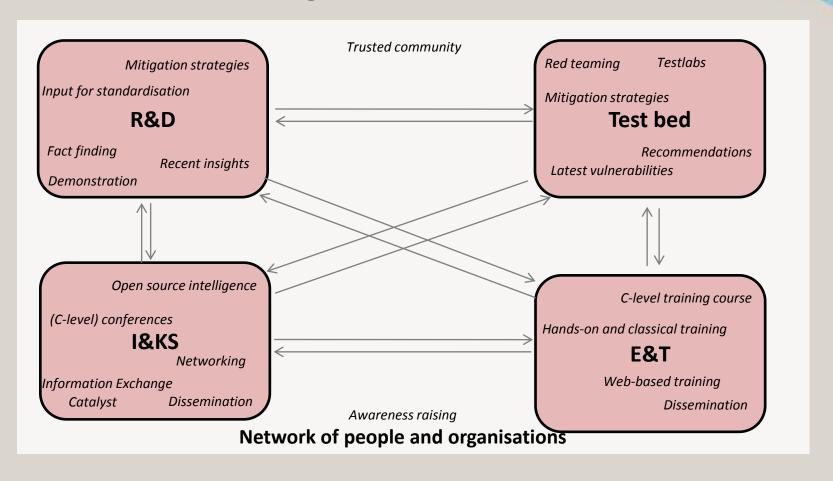
Development towards the European Cyber Security Research and Technology Centre.

- 1. World class education and training (including DHS/INL in the US):
 - Red Team Blue Team training
 - Education of top management (CEO/CIO level) / process engineers / (risk)
 managers / (information) security professionals
- 2. R&D facilities:
 - Innovation
 - Simulation
 - Demonstration
- 3. Test facilities:
 - Product testing
 - Product evaluation
- 4. Development & Sharing of information and knowledge:
 - Cross sector open innovation
 - Public private partnerships
 - National and international coordination

European sectors to include after energy:

- Water supply
- Chemicals and oil
- Food
- Telecom / ICT
- Financials
- Transport
- Defense
- Governments
- Others

ENCS reinforcing Service Lines



Principles of collaboration

Not aiming to compete

- The ENCS strives for a coordinating and organizing role on European level
- Different national and European initiatives should be complementary and be executed accordingly

Pan- European and Global level

- Alliances within the EU
- Alliances to be developed outside EU (United States (DHS-INL) / Israel)

Public Private Collaboration

 The ENCS strives for a push & pull of scientific, governmental and industrial expertise and experience

Transparency within the trusted community

 The ENCS bridges the gap between cyber security related closed communities (e.g. government intelligence agencies and the CERT-community) and the society (industry, academia, consumers)

Market research

A quantitative analysis providing detailed information about the potential market for the ENCS in the area of cyber security in the smart grid and process control domain.

Some results of the IDC top-down market research are:

- ENCS EU Total Addressable Market (TAM) is some €95.5M in 2011.
- Most of investments are currently directed to **R&D**, which represents some **74% of current spending** in ENCS TAM.
- By **2016**, IDC EI expects the ENCS TAM to reach **€389.7M** in the EU, following strong growth rates in all areas.
- By then, R&D will still represent the largest share of the ENCS TAM, but its share will have decreased from 74% to 65%.
- Following very strong growth, testing services will move from €6.5M to more than €80M in 2016. By then, they will represent nearly 10% of the ENCS addressable market.
- Training & education will show less impressive, but still strong growth rates, to reach a size of €56.3M in 2016 (€18.1M in 2011).

Type of Membership	What is the target group	Why
Owners/Operators Most likely members DSOs, TSOs etc.	Direct beneficiaries of main objective: - creating secure critical infrastructures	Are interested in all of ENCS Service Lines
Manufactures/Supplier Service providers like vendors, advisory	Members that benefit indirectly of Cyber-TEC by: - getting access to new markets, members or knowledge. - Have the opportunity to provide existing services to customers by Cyber-TEC	Are interested to connect their services to ENCS. This group will get the opportunity to promote their services by- and in ENCS and gets access to a large European Network of potential customers.
Associate Members Most likely member small & medium enterprises	-Small enterprises and enterprises that are mainly interested for reputation reasons	Low commitment or low budget; this category is necessary to attract new members
Academic Members Most likely member Research institutes	-Research institutes -Universities	Different funding possibilities, different interests, important input in R&D
Government Governmental agencies/ NGO's	- Governments/ Governmental agencies/ NGO's	Regulation and standardization

ENCS Progress Update

Received encouragements

- Letter of Support by Minister Verhagen, Dutch Ministery of Economic affairs, Agriculture and Innovation
- Letter of Support signed on behalf of Neelie Smit-Kroes, DG INFSO
- Growing number of Letters of Support signed by various industrial parties across Europe

Dissemination of the ENCS initiative

- Presentations on a wide variety of (industry) conferences
- Fabrizio Barbaso deputy Director-General of DG Energy, Mark Dierikx Director-General of Dutch Ministery EL&I and Peter Molengraaf CEO Alliander referred to ENCS in their keynote speeches at Metering Europe
- One pager ENCS for EU-US summit, November 28

Activities conducted by ENCS

- Network of Excellence FP7 call regarding the building of a cyber security network (Radboud University, TNO, Alliander, IBM Research, University of Bristol, University of Darmstadt, University of Leuven)
- Bottom-up and top down market research, both indicating a fast emerging need for ENCS
- Finalization Business Plan presented in December 14
- Aim to start at the beginning of May 2012



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