

LABORELEC

GDF SVEZ

LABORELEC
GDF SVEZ



**Building the bridge between practice and research by
identifying the gaps**

ERNICIP Conference
Joint Research Center, Ispra 12-13 December 2012

Jos Menting

July 16, 2012

LABORELEC ©



Presentation Content

- Situation in practice
- Research
- Building bridges



Practice

- Many companies have started doing “something” related to ICS cyber security
 - Started implementing physical measures
 - Antivirus
 - Portable media
 - Firewalls
 - Procedures for remote access
 - Have not imbedded ICS CS in projects
 - Starting writing policies
 - Do not apply training or awareness campaigns
 - Need more awareness themselves on all levels
 - Haven’t imbedded ICS security (like safety) in the organization; strong focus on technical solutions
 - Need to know that is a common problem that goes over boundaries
 - Managers ask for reasonable solutions that cost effectively cover most vulnerable parts of their business



Risk and cost

- Top secure is very expensive and 100% security does not exist
- Operators see ICS security as a cost factor and not as a business driver
- Solutions have to be cost effective (what measure brings most)
- How can ICS security been coupled to the business risk model (PF7 ValueSec project might give an answer)



5

LABORELEC ©



Research

- Trying to address topics that rule into ICS cyber security
 - Zooming in on specific issues
- Looking for new measures to mitigate certain problems
- Maybe misses the link to what is really going on in practice
- Lacks visibility to the market



6

LABORELEC ©





Building Bridges

- The challenge is to connect the need of the end user to the business of the researcher → building the bridge

- Possible themes are:
 - Understand the way viruses work and spread in the ICS; develop mitigating strategies → what could be the impact
 - Patch management solutions, both technical as organizational
 - Safe architectures and solutions for obsolete systems (without password, AV, ..)
 - Know your attacker and the environment, what are the biggest risks
 - Homologation of standardization
 - KPI's to benchmark your security posture
 - Training
 - Awareness campaigns
 - Test facility



7

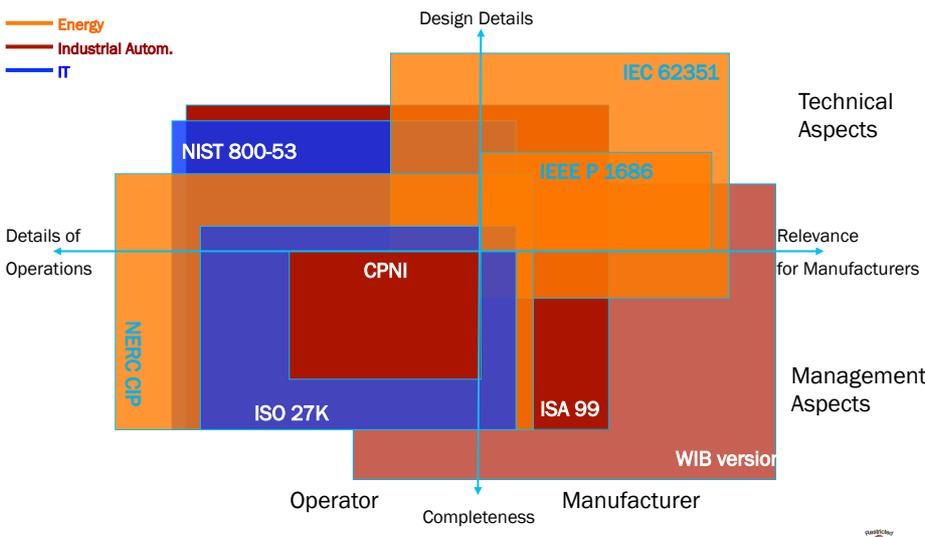


Standards mapping

— Energy

— Industrial Autom.

— IT



The diagram maps standards across three dimensions: Design Details (top), Management Aspects (middle), and Operator/Manufacturer (bottom). Standards are categorized by sector: Energy (orange), Industrial Autom. (red), and IT (blue). Overlaps indicate cross-sector relevance.

| Standard | Sector | Design Details | Management Aspects | Operator | Manufacturer |
|-------------|-------------------|----------------|--------------------|----------|--------------|
| IEC 62351 | Energy | Yes | Yes | No | No |
| IEEE P 1686 | Energy | Yes | Yes | No | No |
| ISA 99 | Industrial Autom. | No | Yes | No | Yes |
| WIB version | Industrial Autom. | No | Yes | No | Yes |
| CPNI | Industrial Autom. | No | Yes | Yes | No |
| ISO 27K | IT | No | Yes | Yes | No |
| NIST 800-53 | IT | No | Yes | Yes | No |
| NERC CIP | Energy | No | Yes | Yes | No |

8

LABORELEC © 

Thanks for your attention !

jos.menting@laborelec.com

9

LABORELEC ©



9

LABORELEC

GDF SUEZ

Laborelec Belgium

Rodestraat 125
1630 Linkebeek
Belgium
T. +32 2 382 02 11
F. +32 2 382 02 41
RPR/RPM Brussels 0400.902.582
BTW/TVA BE 0400 902 582
www.laborelec.com
nfo@laborelec.com

Laborelec The Netherlands

Amerikalaan 35
6199 AE
Maastricht-Airport
The Netherlands
T. +31 63 88 26 022

Laborelec Germany

Brombergerstrasse 39-41,
42281 Wuppertal
Germany
T. +49 202 250 27 13
F. +49 202 250 27 15

From innovation to operational assistance in energy

Laborelec is a leading research and services centre in energy processes and energy use, with almost fifty years of experience. We are part of the Research and Innovation Division of the GDF SUEZ Group, a world leader in the energy sector.



FIVE REASONS FOR YOU TO CHOOSE LABORELEC

- One-stop shopping for your energy related services
- More than 45 years of experience
- Increased profitability of your installations
- Independent and confidential advice
- Recognized and certified laboratory

© LABORELEC