



The SPARKS Project

Motivation, Objectives and Results

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The SUCCESS Project Open Innovation Event

22nd September, 2016, Terni, Italy



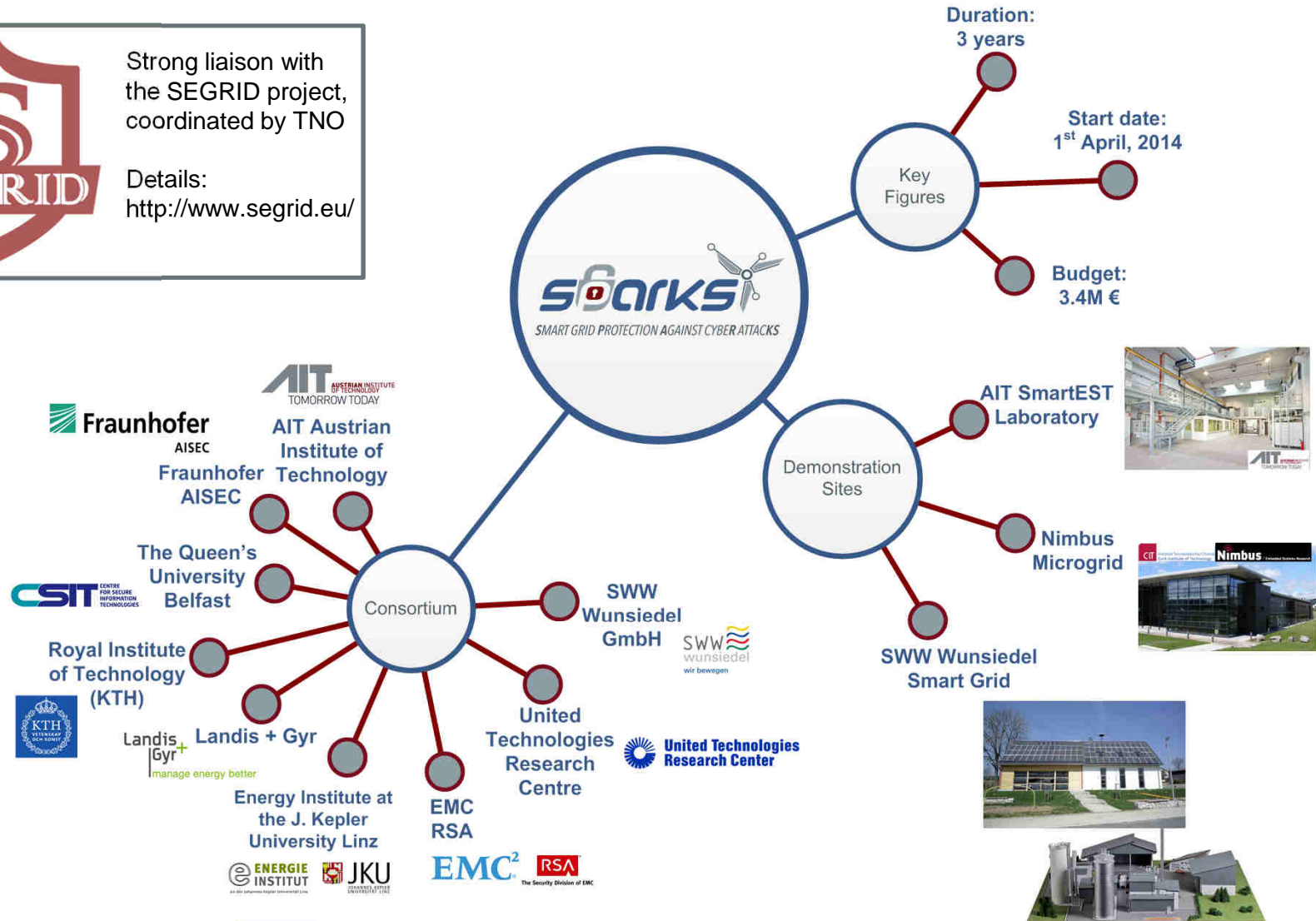
The SPARKS Project





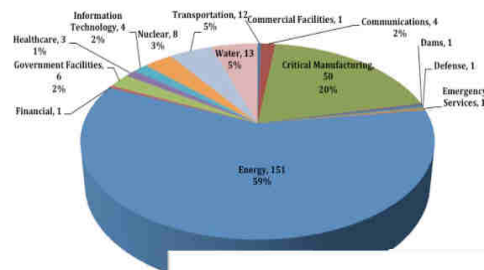
Strong liaison with the SEGRID project, coordinated by TNO

Details: <http://www.segrid.eu/>



Motivation: New Cybersecurity Concerns for Energy Utilities

Operational Risks

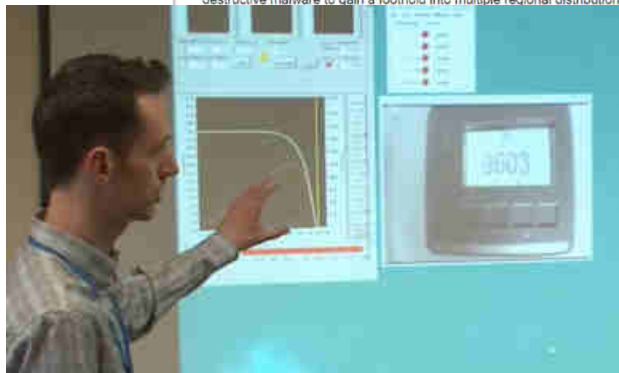


Analysis confirms coordinated hack attack caused Ukrainian power outage

BlackEnergy was key ingredient used to cause power outage to at least 80k customers.

by Dan Goodin - Jan 11, 2016 5:42am GMT

The people who carried out last month's first known hacker-caused power outage used highly destructive malware to gain a foothold into multiple regional distribution power companies in Ukraine published analysts confirms.



Compliance Risks

1. Penalties and Enforcement

Under Article 76, violations of certain provisions will carry a penalty of "up to 2% of total worldwide annual turnover of the preceding financial year." Violations of other provisions will carry a penalty of "up to 4% of total worldwide annual turnover of the preceding financial year." The 4% penalty applies to "basic principles for processing, including conditions for consent," as well as "data subjects' rights" and "transfers of personal data to a recipient in a third country or an international organisation."

These are huge penalties. Such penalties will definitely be a wake-up call for top management at companies to pay more attention to privacy and to provide more resources to the Chief Privacy Officer (CPO). Now we can finally imagine the CEO at a meeting with the secretary rushing over to her and whispering in her ear that the CPO is calling. The CEO will stand up immediately and say, "Excuse me, but I must take this call, it's my CPO calling!"

Article 27

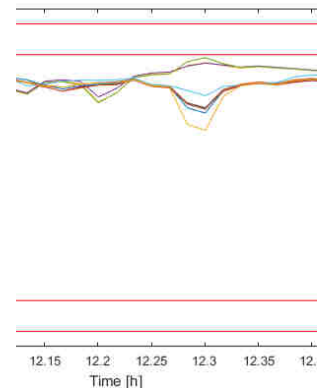
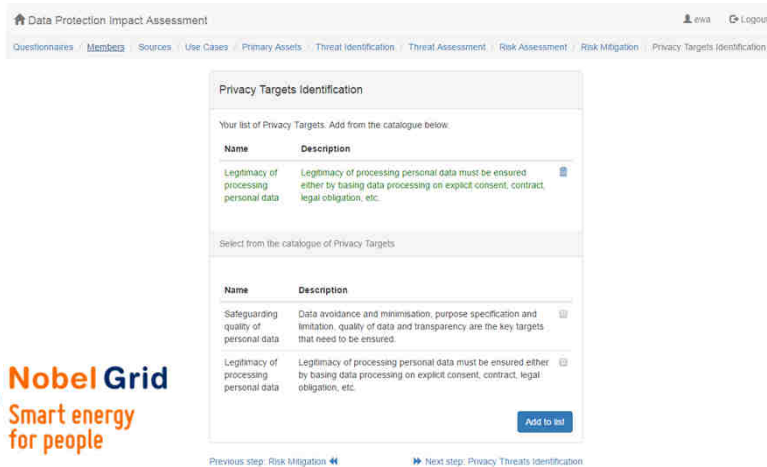
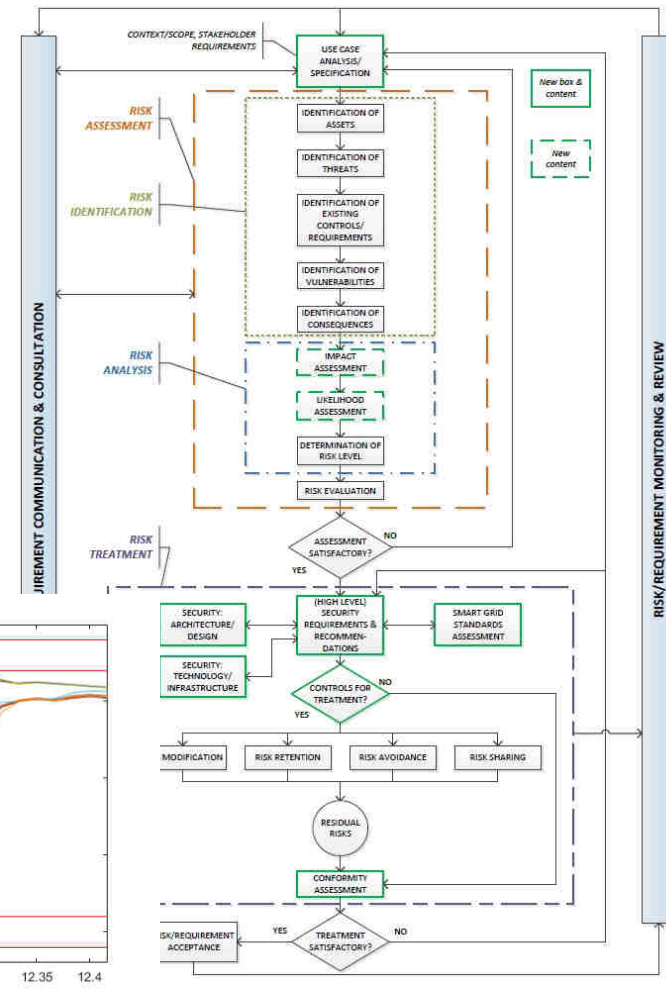
Data protection impact assessment

- Where a type of processing, in particular, using new technologies, and taking into account the nature, scope, context and purposes of the processing is likely to result in a high risk to the rights and freedoms of natural persons, Member States shall provide for the controller to carry out, prior to the processing, an assessment of the impact of the envisaged processing operations on the protection of personal data.
- The assessment referred to in paragraph 1 shall contain at least a general description of the envisaged processing operations, an assessment of the risks to the rights and freedoms of data subjects, the measures envisaged to address those risks, safeguards, security measures and mechanisms to ensure the protection of personal data and to demonstrate compliance with this Directive, taking into account the rights and legitimate interests of the data subjects and other persons concerned.

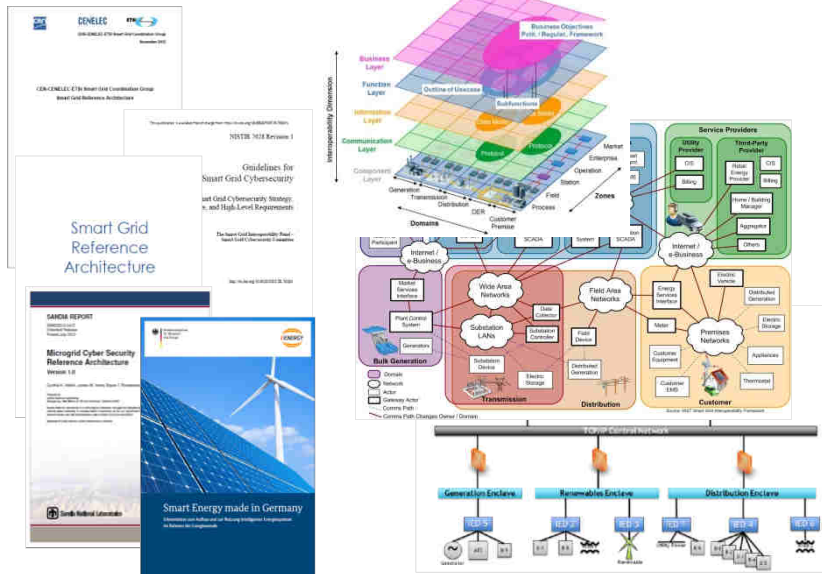


Security and Privacy Analysis Methods and Tools

- Risk management framework targeted at smart grid stakeholders
- Tools to automate the threat and consequence identification processes
- Web-based tool to support Data Protection Impact Assessments

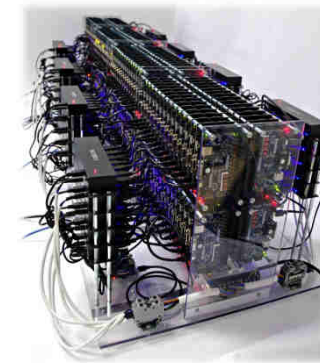


Security Architectures and Technologies

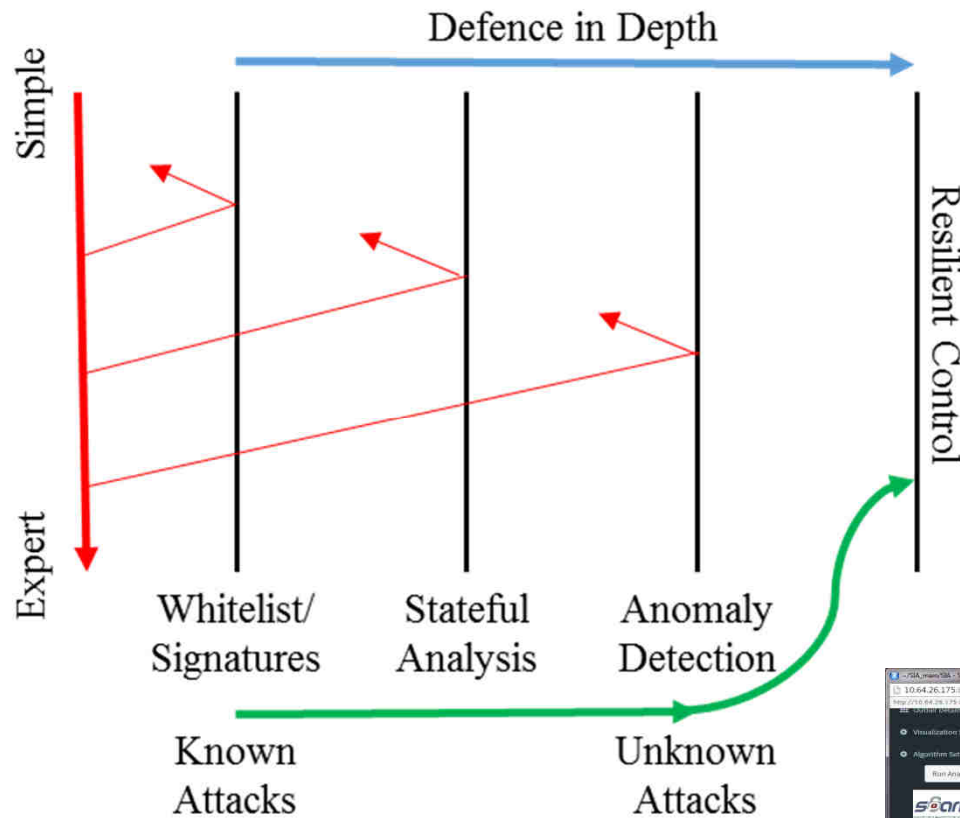


- Consolidation and analysis of existing standards, architectural guidelines and best practices
- Guidance on the application of material to operators
- Recommendations regarding future topics that should be addressed

- Exploration of the use of PUF technology to secure smart meters and gateways
- Unique testbed to evaluate PUF designs and their robustness to side channel attacks, etc.



Security Analytics and Resilient Control



- Multi-attribute SCADA intrusion detection system
- Security analytics platform
- Resilient adaptation of ICT and power infrastructure behaviour



Upcoming Events

- Workshop on Security Requirements for Smart Grids: Economic, legal and societal aspects
 - Discuss the NIS Directive and GDPR in relation to smart grids
 - **19th October in the European Parliament, Brussels**
 - Attendees from the European Parliament, Commission, ENISA, ACER, ...
- European Utility Week
 - SEGRID workshop on Monday 14th November (<http://www.segrid.eu/>)
 - HyRiM workshop and Hub Session on Tuesday 15th November (<https://hyrim.net>)



Questions



Website

<https://project-sparks.eu>

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