



Security for smart Electricity GRIDs

Project type:	Collaborative project – small or medium scale focused research project
Grant agreement no:	607109
Thematic Priority:	FP7-SEC-2013-1
Start date of project:	October 1st, 2014
End date of project:	December 31 st , 2017
Coordinator:	TNO, The Netherlands

SEGRID

Partners

Distribution System Operators



Manufacturers



Knowledge institutes

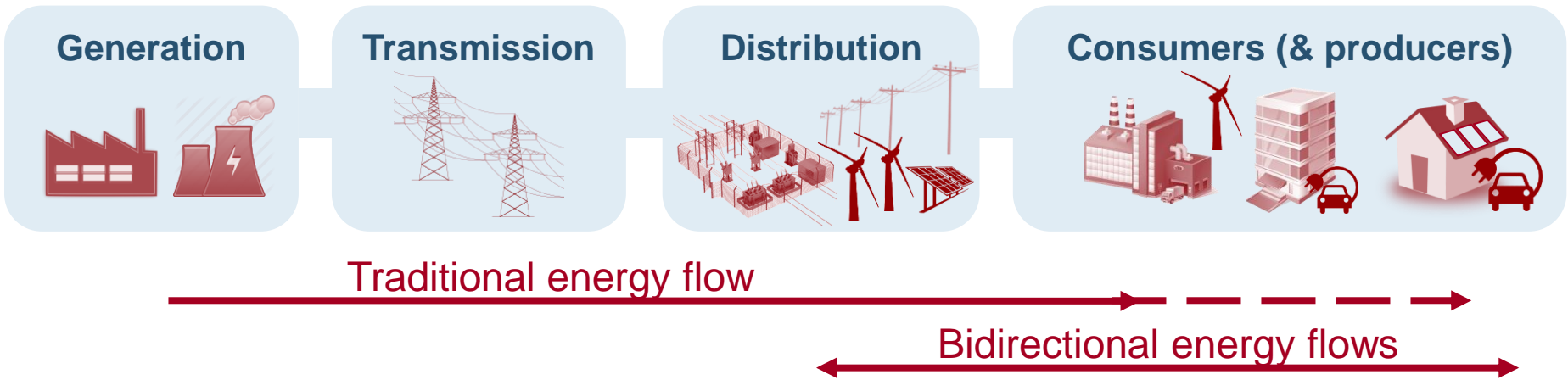


Universities



Ciências ULisboa

Towards the Smart Grid



- Renewable and distributed generation
 - European Commission (EC) has set a goal to meet at least 40 percent of the continent's demand for electrical power with renewables by 2030.
- Electric vehicle charging

Distribution System Operators (DSO) will need to make major changes to the way they run the distribution network.

Towards the Smart Grid

New challenges for DSOs

Generation



Transmission



Distribution



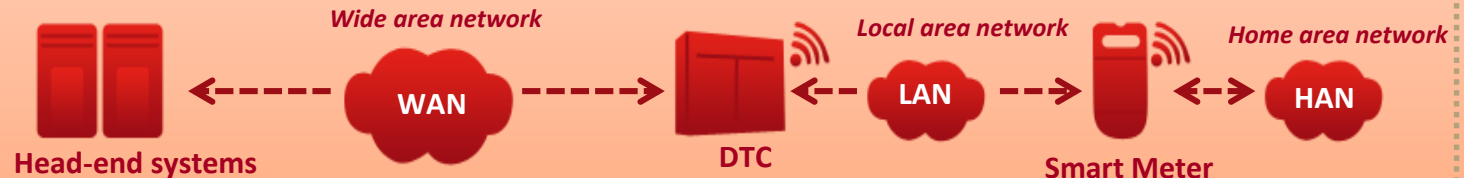
Consumers (& producers)



Increase in monitoring and automation



Advanced Metering Infrastructure

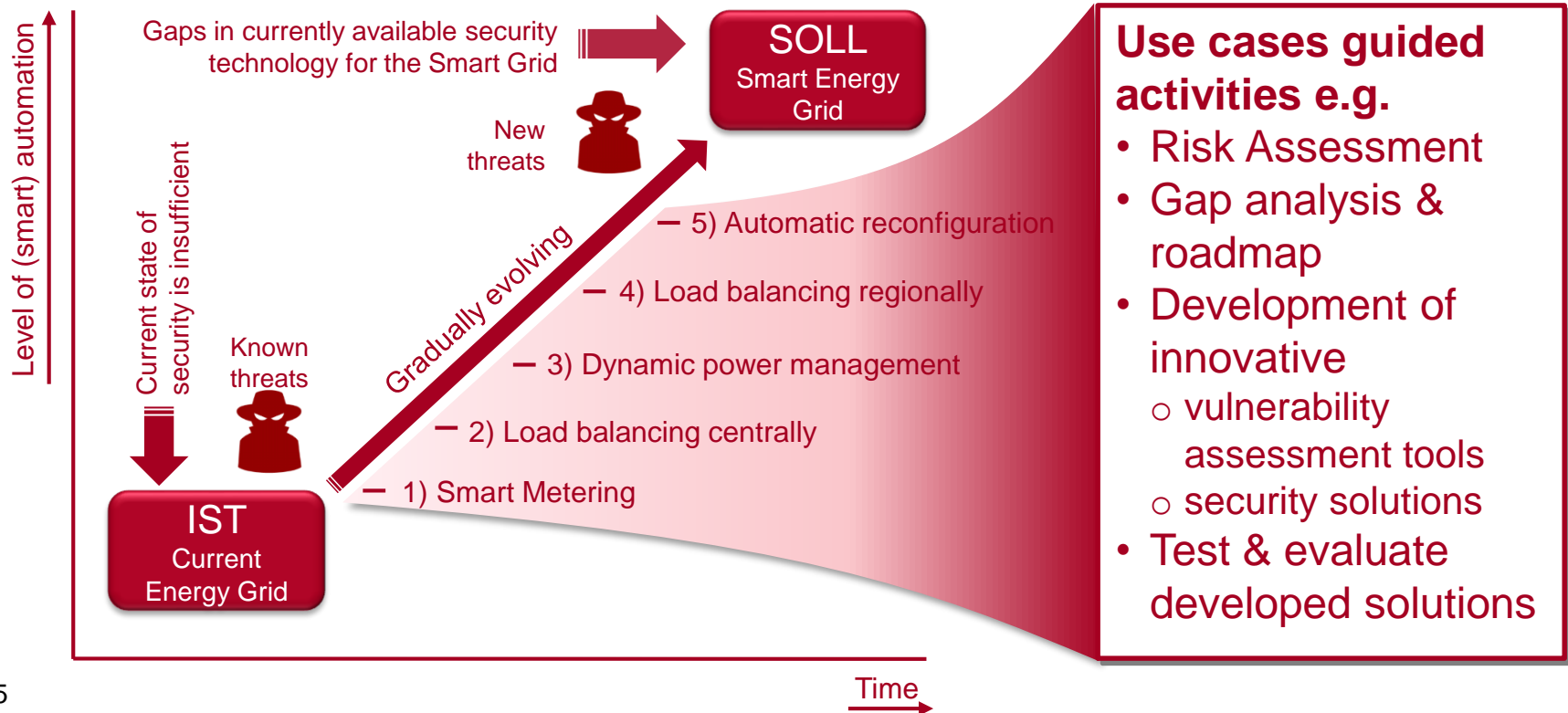


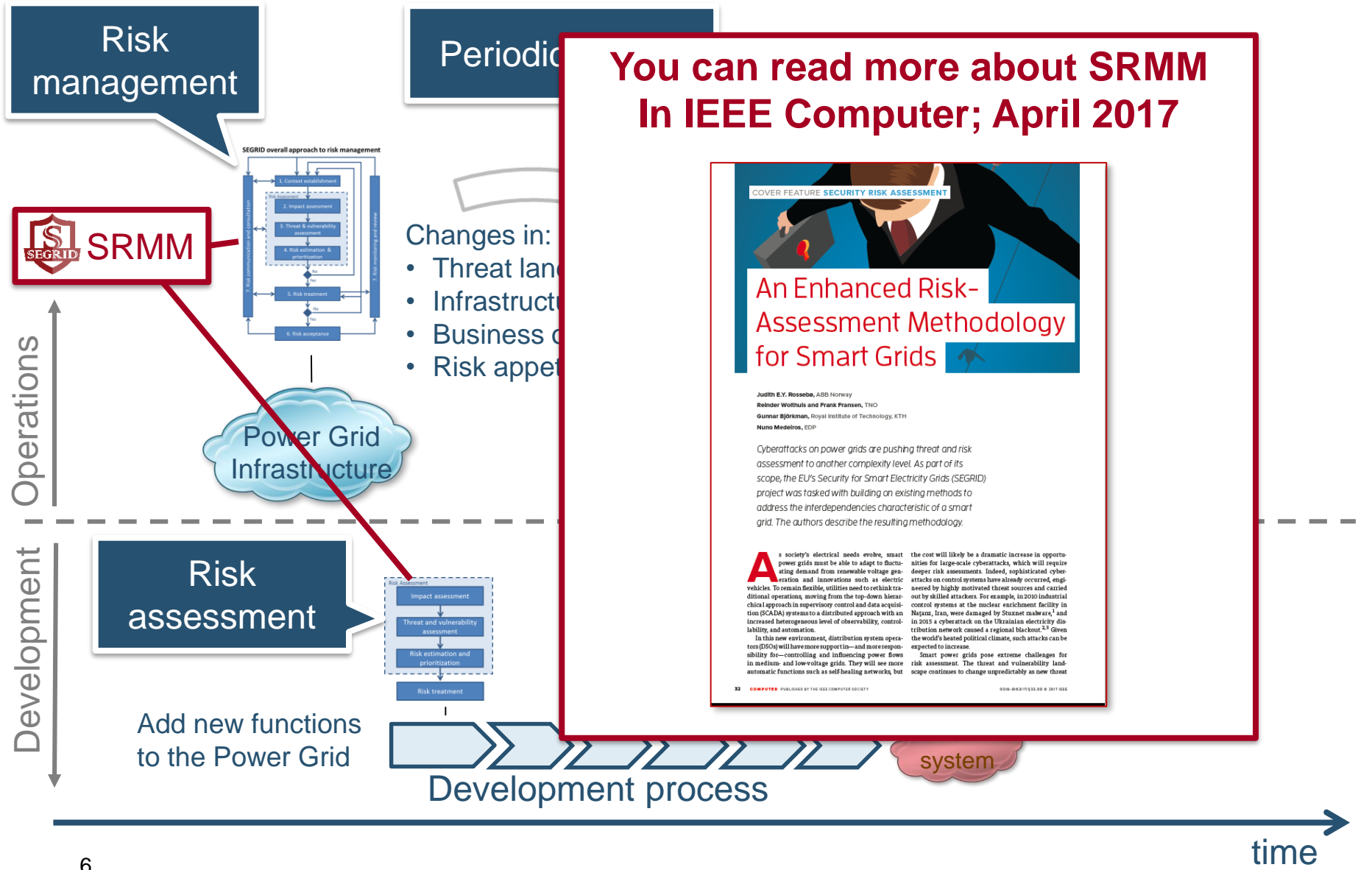
Increases the Complexity & the Exposure of the electricity grid to Cyber Threats

SEGRID

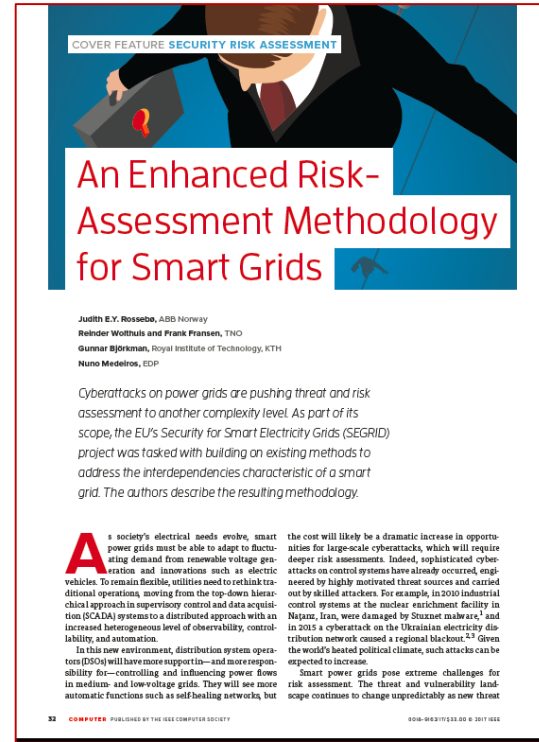
How did SEGRID approach these challenges?

SEGRID's main objective is to enhance the protection of smart grids against cyber-attacks.

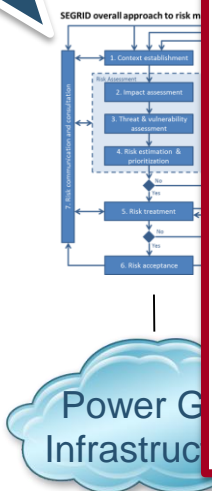




You can read more about SRMM
In IEEE Computer; April 2017



Risk management



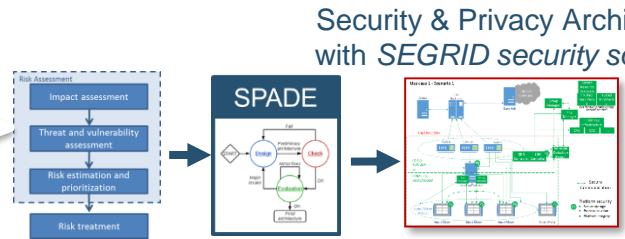
- ## Security solutions & technologies developed by SEGRID
- Trusted Platform
 - Resilient SCADA systems
 - IDS and authentication in mesh networks
 - Robustness and scalable (D)TLS
 - Resilient communication infrastructure
 - Key management for group software distribution
 - Privacy by design - privacy design patterns
 - Prevention of Injection Attacks in DBMS
-
- Vulnerability Detection and Correction with WAP



Operations

Development

Risk assessment



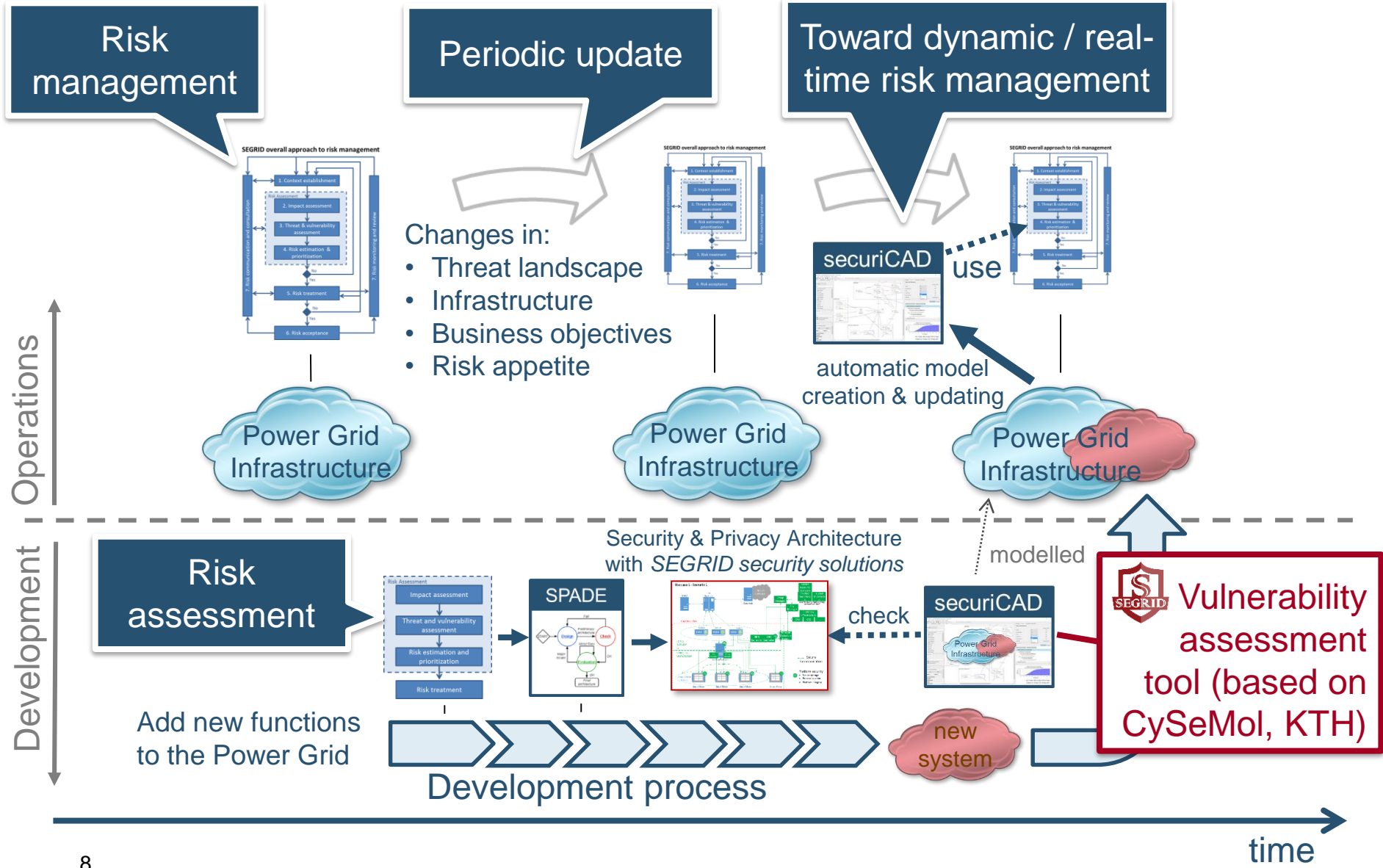
Cost Assessment



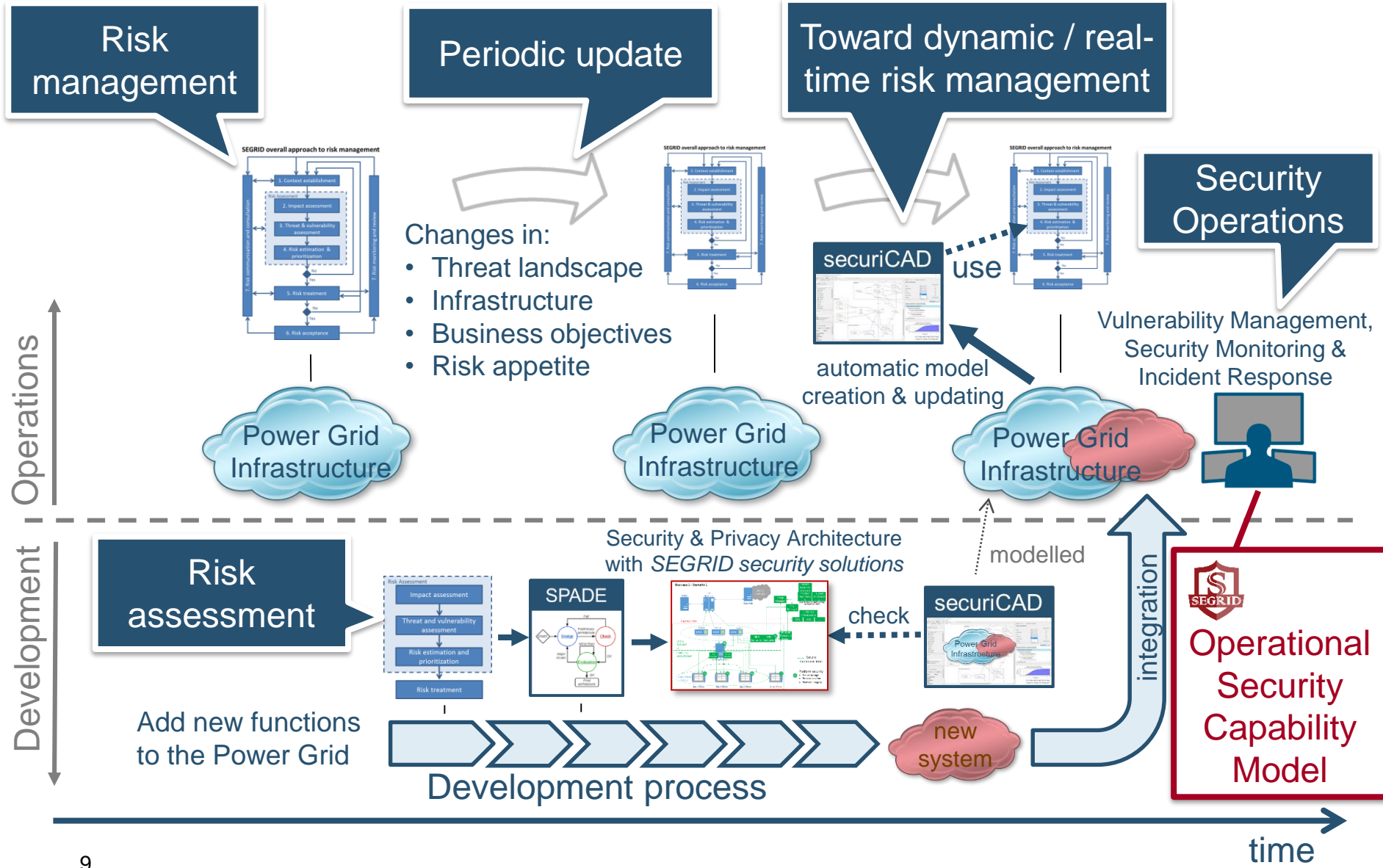
Add new functions to the Power Grid



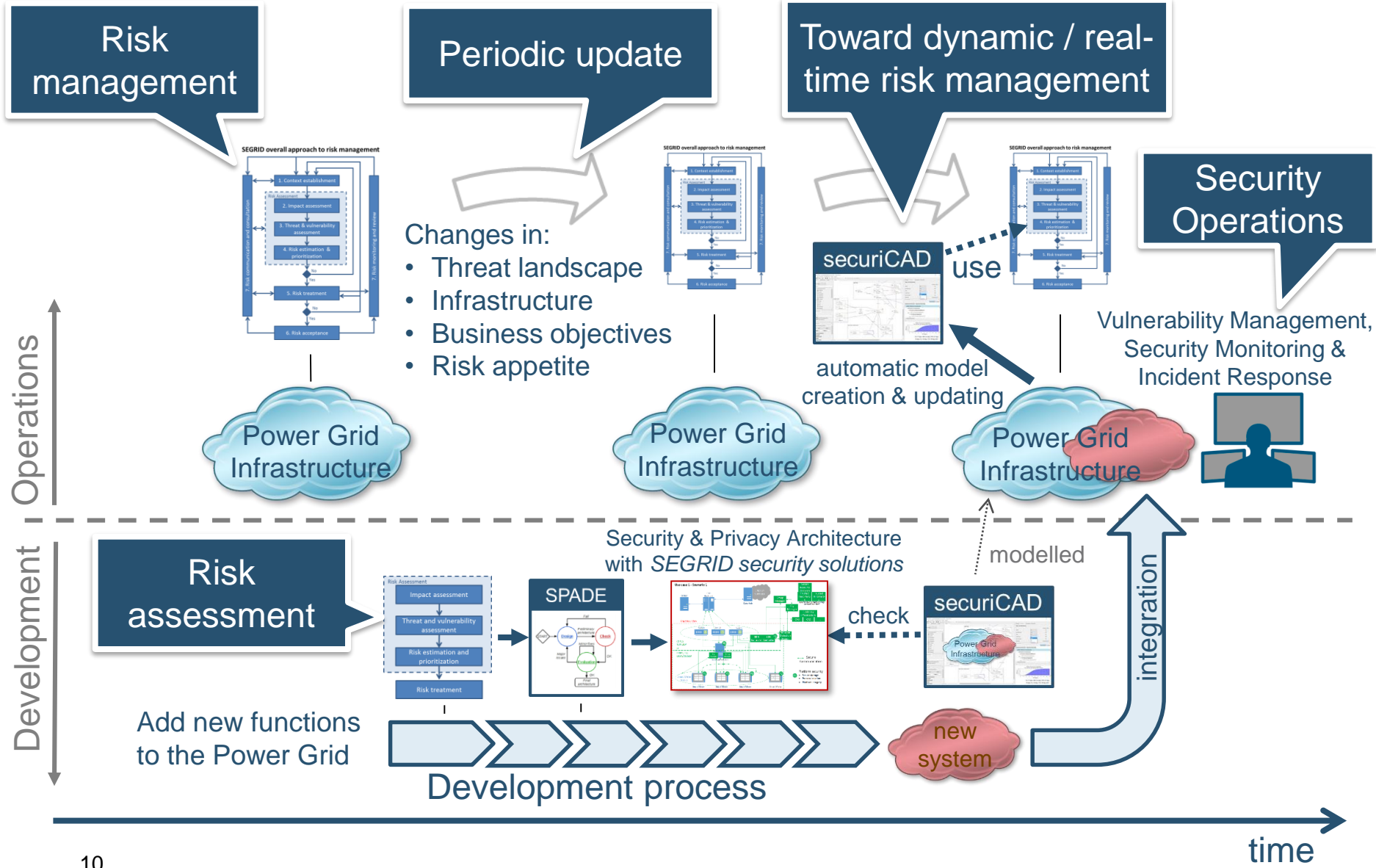
SEGRID Innovations



SEGRID Innovations



SEGRID Innovations

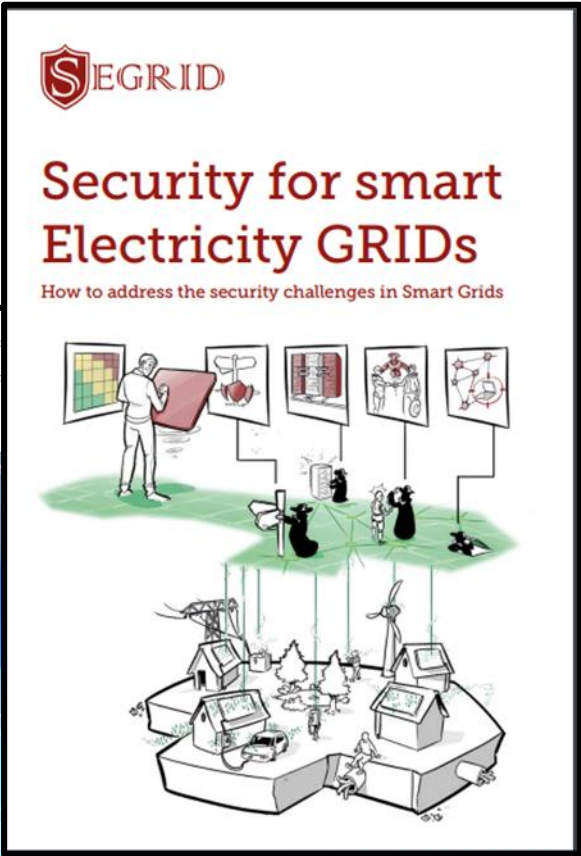


SEGRID Whitepaper



SEGRID commitment

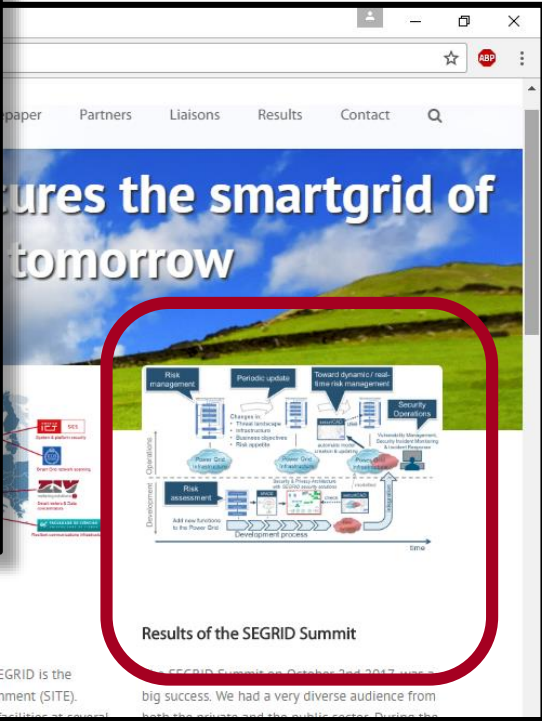
The SEGRID partners work together to build adequate security into the smartgrid of tomorrow. Building on the efforts of ENISA, the partners...



SEGRID approach

The SEGRID use cases are the foundation of the project. Based on these use cases, we conduct risk assessments and vulnerability analyses. For...

SEGRID Summit October 2nd, 2017



Results of the SEGRID Summit

The SEGRID Summit was a big success. We had a very diverse audience from both the private and the public sector. During the...

Questions

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