



European
Network for
Cyber Security

We create and bring together knowledge and resources to secure European critical infrastructures

Partnering for Cyber Resilience

ENCS

Initial focus on Smart Grids and ICS

- **Network:** government, academia, business, inter and intra communities
- **Knowledge:** collect, create and share expertise and information
- **Resources:** people, hardware & software, test facilities
- **Business lines:** R&D, Testing, Information & Knowledge Sharing, Education & Training

ENCS Cooperative Association

- ENCS is a private organization with **public partnerships** for securing critical European infrastructures
- ENCS is an independent **not for profit** cooperative association driven by **member benefits**
- **Members** include asset owners and operators, manufacturers and suppliers, academia and public organizations
- **ENCS provides the network**, knowledge and resources to comply with cyber security regulation and to stay ahead in cyber security developments

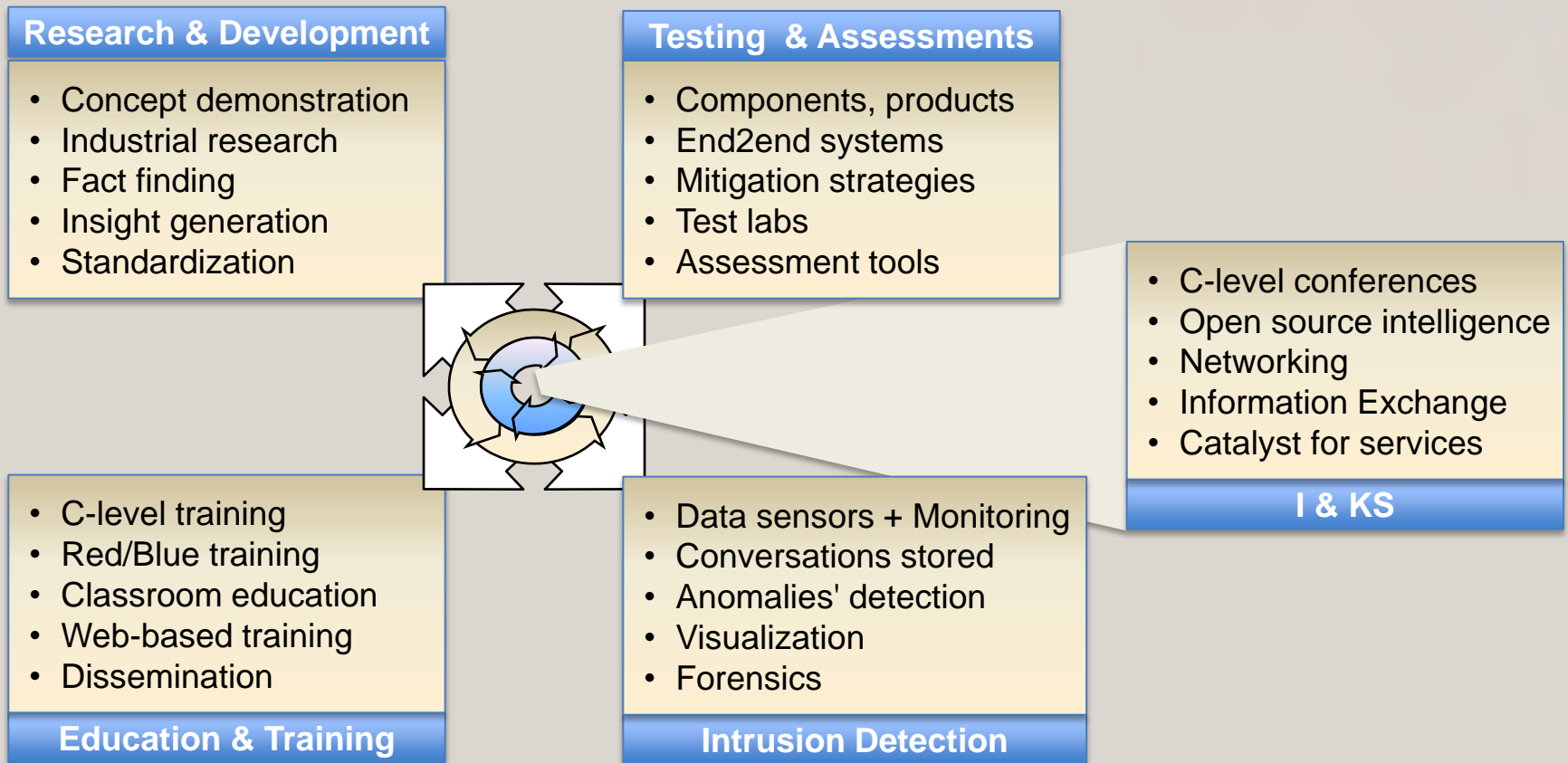
Status

- ENCS founded in July 2012 by Alliander, KPN, DNV-KEMA, and strategic partners TNO and Radboud University
- R&D team 6 headcount in 2012 and growing
- ENCS testbed being built, Alliander MS-LiveLab, DNV-KEMA and TNO test facilities available
- ENCS is open for association of new members

Unique ENCS services

- **Assessments** of company and devices for cyber security resilience
- **Training program** including Red-Blue Team training (currently only available in the US)
- **Intrusion Detection** through network traffic monitoring
- **Cyber security requirements** for development of new equipment in smart meters and smart grids
- **End-to-end testing** of new equipment on cyber security
- **Advanced privacy technology** through computing with cryptographic methods for smart metering
- **Cyber security research** tailored to DSO's needs

Network of knowledge and resources



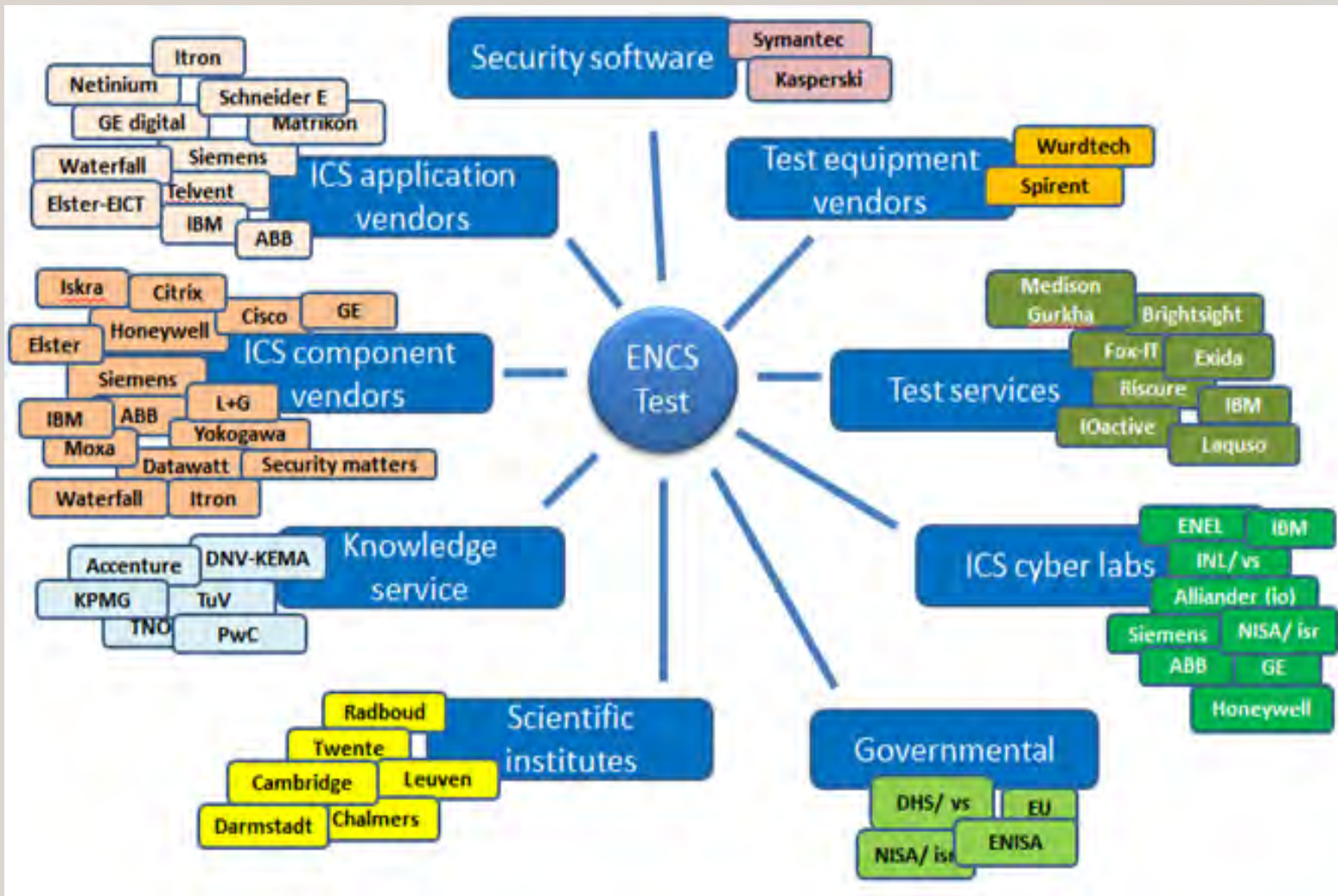
ENCS R&D Principles

- ENCS builds dedicated R&D competence in security for smart grids and control systems
- Aligned with industry needs
- Close cooperation with members, industry, academic world, regulators and standardization bodies
- Research agenda in collaboration with industry and regulators
- Resources are available for member's projects, standardization groups, advice to regulators etc.
- Integration with test lab and shared projects to push solutions from paper to practice in a pragmatic way

R&D program

- Security architectures for the smart grid
- Trust and Assurance
- Security in dependable systems
- Privacy by design
- Low resource security in cyber critical systems
- Usability-, legal- and economical issues
- Situational awareness and monitoring

Testbed



Information & Knowledge Sharing

- Actively build a relevant network of (C-level) stakeholders
- Contribute to conferences
- Partner in EU projects specifically in Work Packages on PPP, Information Sharing, Dissemination
- Collect and distribute latest (open source) knowledge on incidents, threats, vulnerabilities and good practices
- Develop an evidence based database.



www.encs.eu

Organization

ENCS Assembly

ENCS Executive Committee

CEO Office

HR, Finance,
ICT, Marketing

Projects

Research
&
Development

Cyber
Testing

Education
&
Training

Information &
Knowledge
sharing

ENCS Membership

ENCS members recognize today's global hyper-connected environment and play an important role in contributing to a safer and more resilient digital infrastructure



• ● : : : European
: : : : : Network for
: : : ● : Cyber Security
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Seven Membership Benefits

- Partnering for Cyber Resilience
 - Demonstrate commitment to protecting and preserving your digital assets and reputation
- Participation in the R&D program:
 - Build knowledge and propose R&D projects
 - Insight in work in progress and early findings
 - Access to researchers
- Peer interaction, access to peer exchange:
 - Requirements and good practices
 - Test results, findings and mitigation strategies
 - Newest developments and advisories

Seven Membership Benefits

- Representation in EU and International policy debates and standardization bodies
- Discount and priority bookings on:
 - ENCS education and training program
 - Assessments and tests
 - Support and projects
- Opportunity to participate in ENCS assignments
 - Reimbursement at fair commercial fees
- Opportunity to participate in subsidized EU programs