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For power system expertise

Certification schemes to reduce EPUs tests.

SC D2: Information Systems and Telecommunication
PS2 Question 2.11: What are the lessons learnt on the importance of testing of cyber security solutions by EPUs before deployment?

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Certification schemes to reduce EPUs tests

- Due to criticality and complexity of electrical sector systems, every new or evolving functionality or solution must be tested in set-ups as real as possible, to ensure interoperability and detect possible unexpected effects.
- Cyber security introduces more complexity and new situations, some of them not visible at first glance, so the test becomes even more important.
- Some EPUs defines specific requirements to adapt cyber security solutions to their systems and internal processes, which leads manufacturers to a particularization. At functional level this may represent a competitive advantage, but for cybersecurity this is the opposite, since if not all suppliers comply with the requirement, it may be eliminated.

Certification schemes to reduce EPUs tests

- Standard certification schemes are very valuable for electrical sector. Some good example is IEC 61850. After many years of work, IEDs are being deployed under this standard, **problems and new situations have been surfaced**, **solved**, and **new editions** of the standard and certification is released.
- Huge efforts needed to implement cyber security by the entire supply chain should be **common and available for use** by all EPUs.
- We believe that a standard certification framework, adapted to the needs of the sector (e.g. more lightweight than Common Criteria), allows to reduce the tests that have to be performed almost independently by each EPU right now, so that we can obtain **more cybersecurity guarantees** with **much less cost**. But, it doesn’t reduce to 0 the tests.
- In Europe, ENISA is in charge of defining a cybersecurity certification framework at European level (EUCC), and this framework will take into account the sectoral regulations and standards, but it should provide an agile way to incorporate new requirements, either due to new technologies as they emerge, or due to lessons learned from incidents as they occur.