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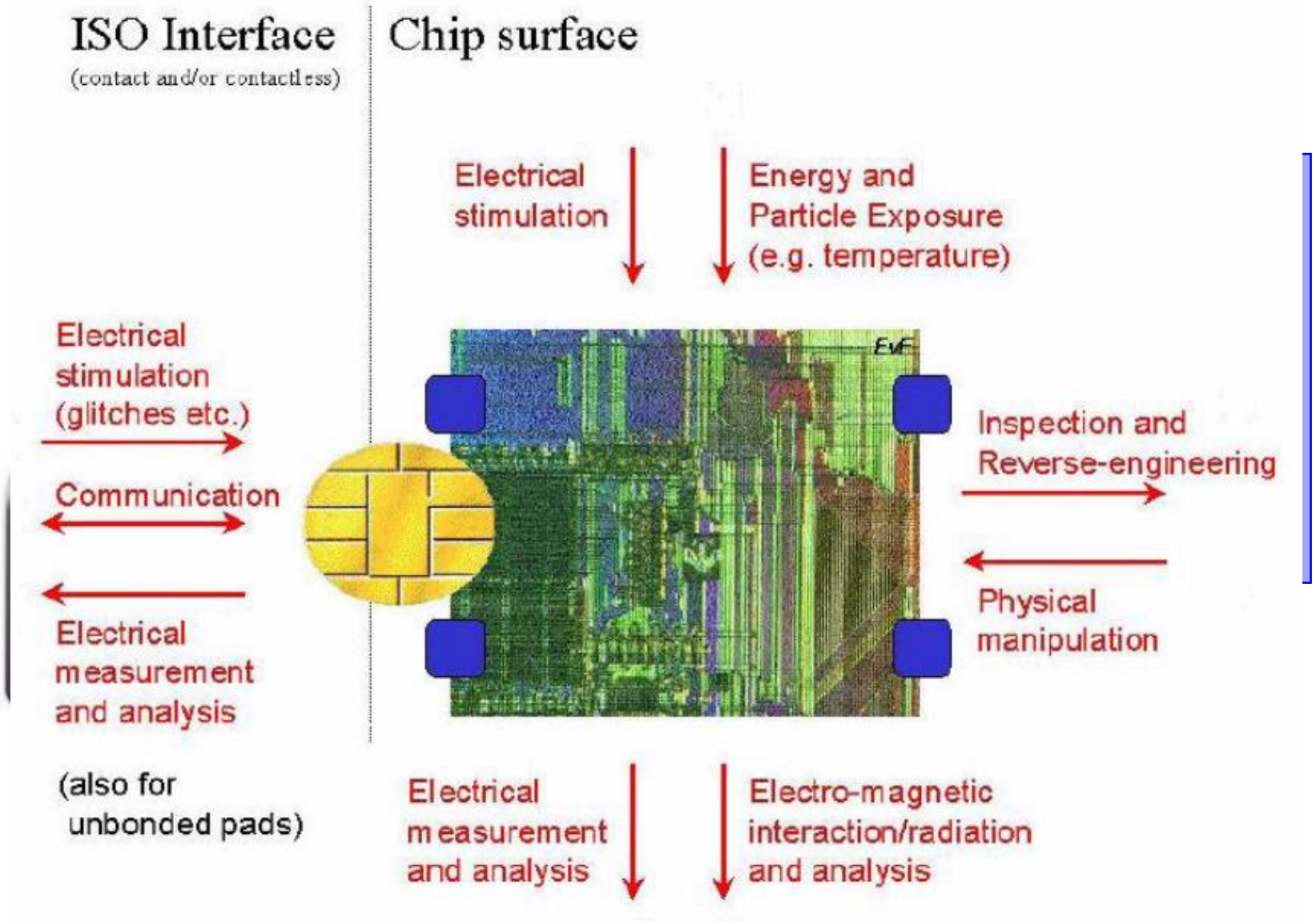
# View of an IT Security testing lab

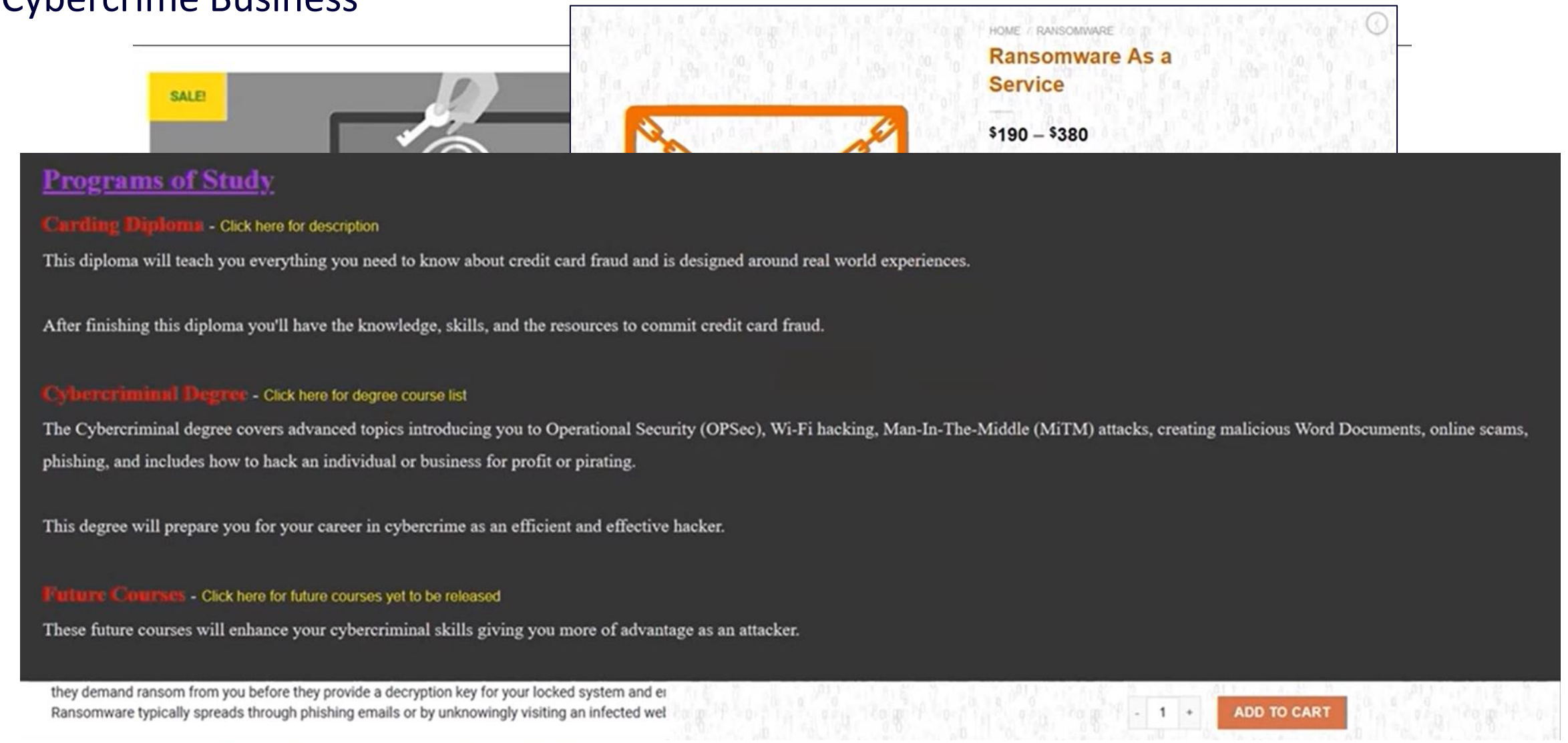
**Brussels, Nov. 23rd, 2022**

# Secure Elements

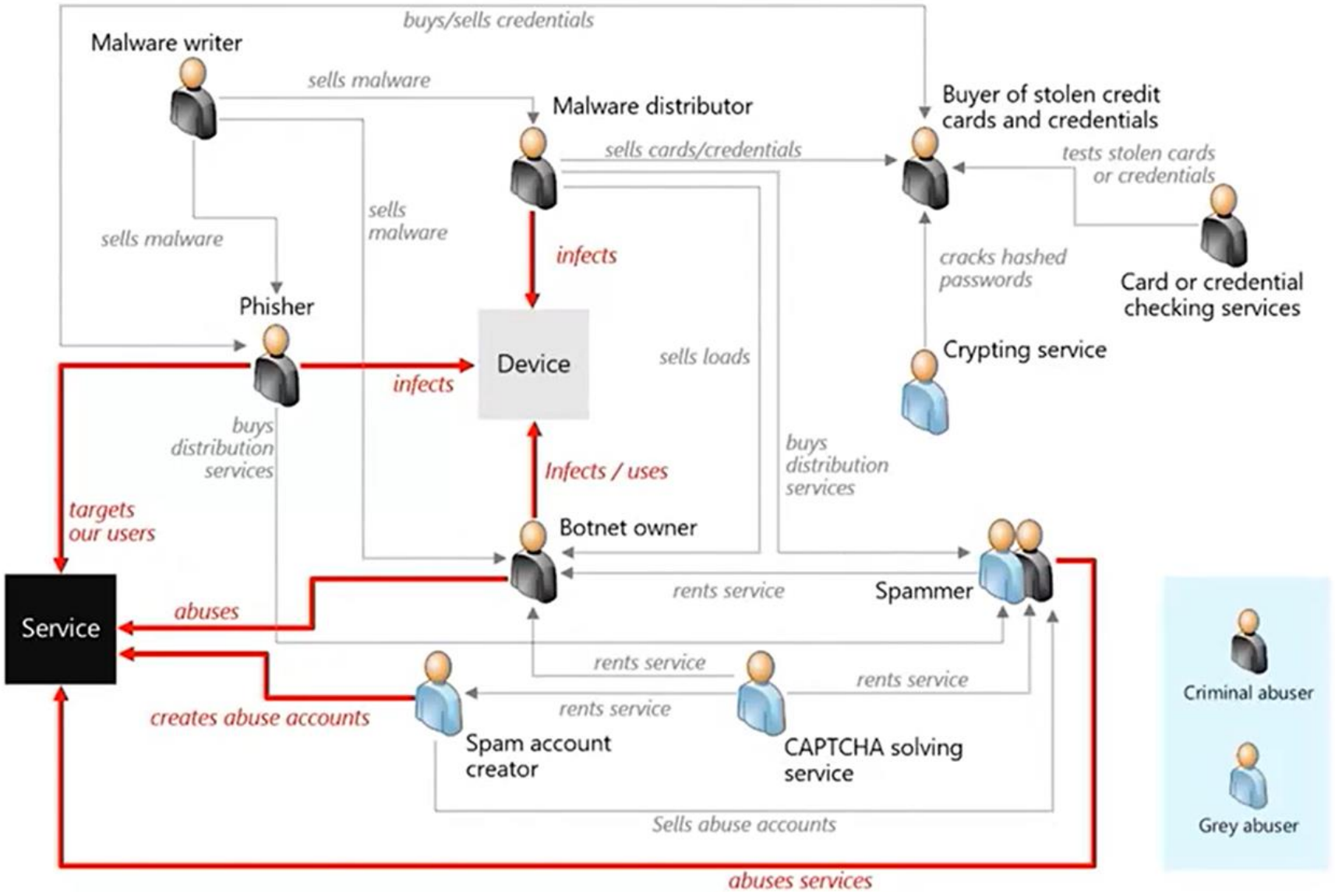


# Market Place Darknet

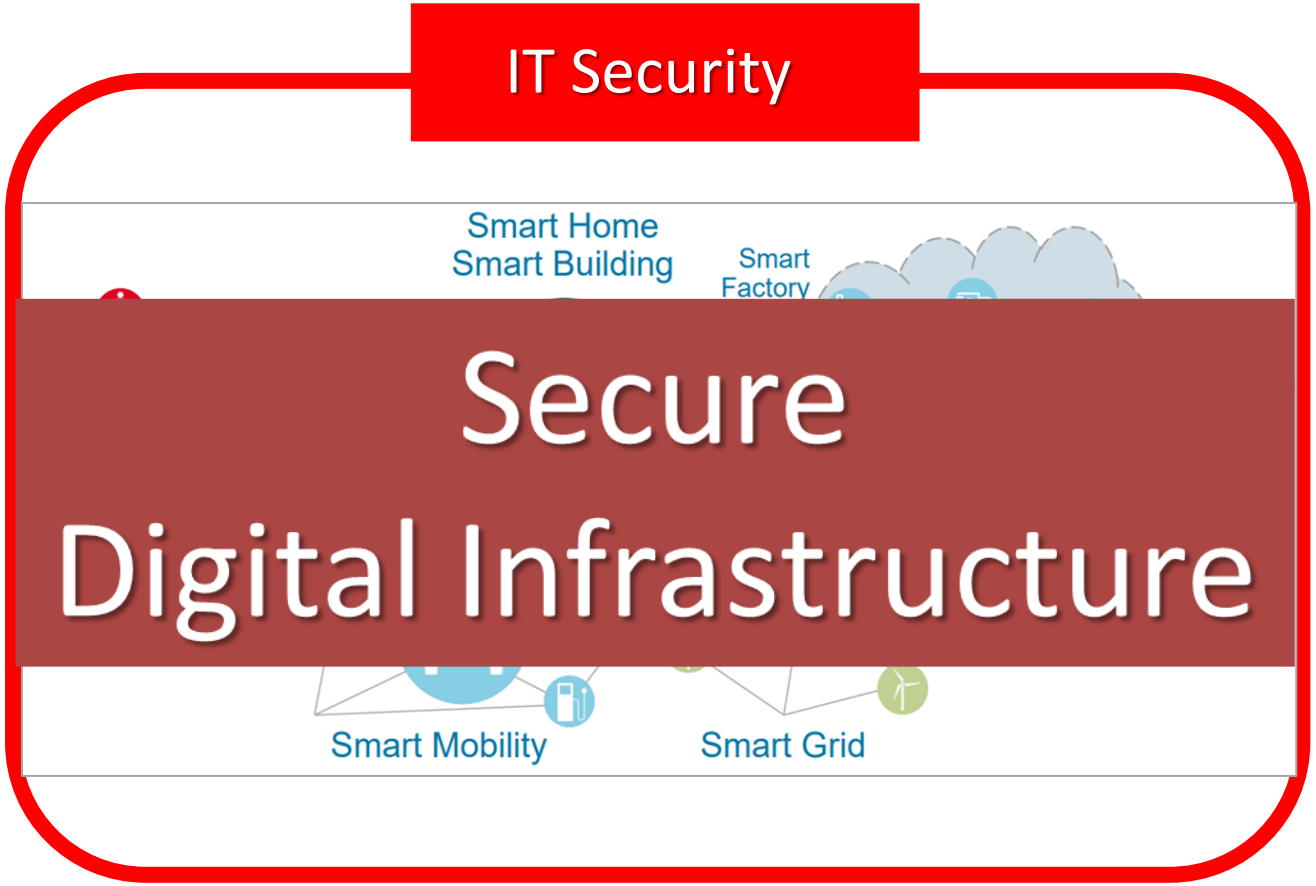
## Cybercrime Business



# Ecosystem of Fraud and Abuse



# No Safety without IT Security
# IT Security is not an extension of Safety




IT Security is the essential prerequisite to achieve Safety in a digital connected world

Cybersecurity: Threads from Cyberspace
IT Security: Cybersecurity and IT Infrastructure



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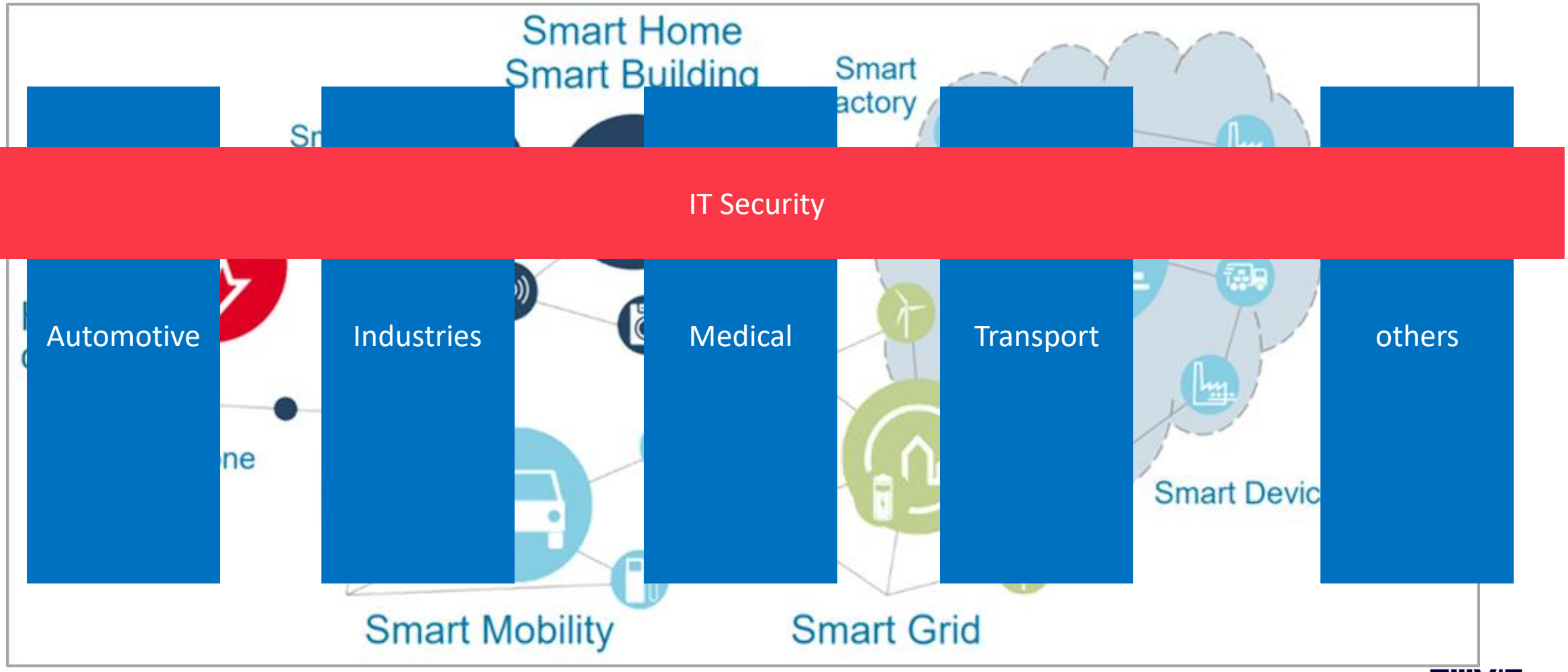
# IT Security requirements are horizontal



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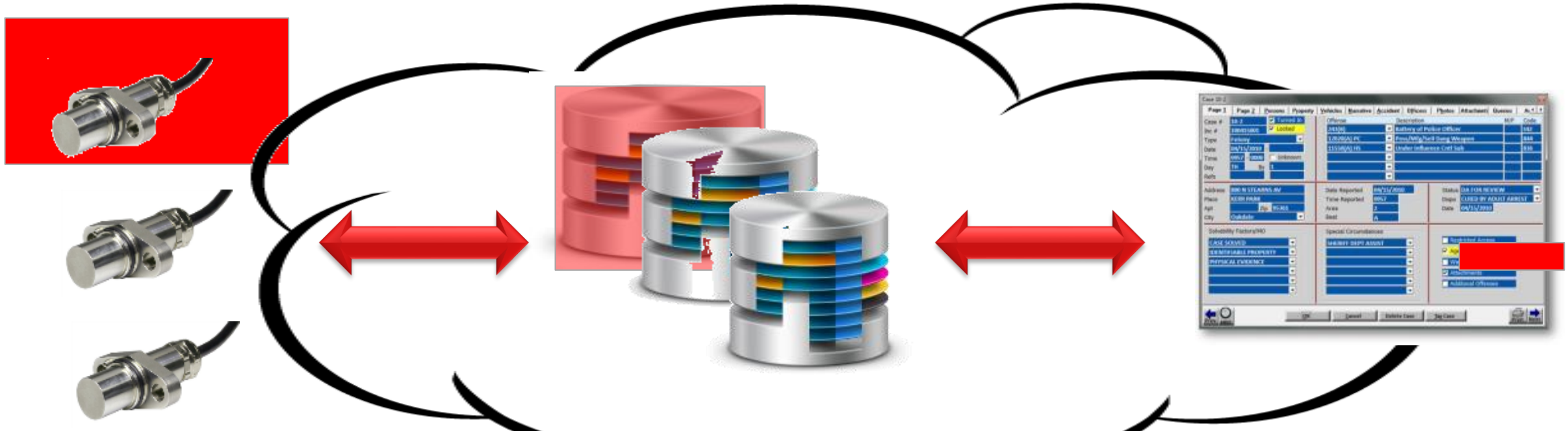
# IT Security Core Elements for all Verticals

Integration communication protocol unit



Application Unit
Sensor
Actor

Information Unit
OS, Data Integrity
Data Management

Management Unit
Condition Display
Software
Decision Support



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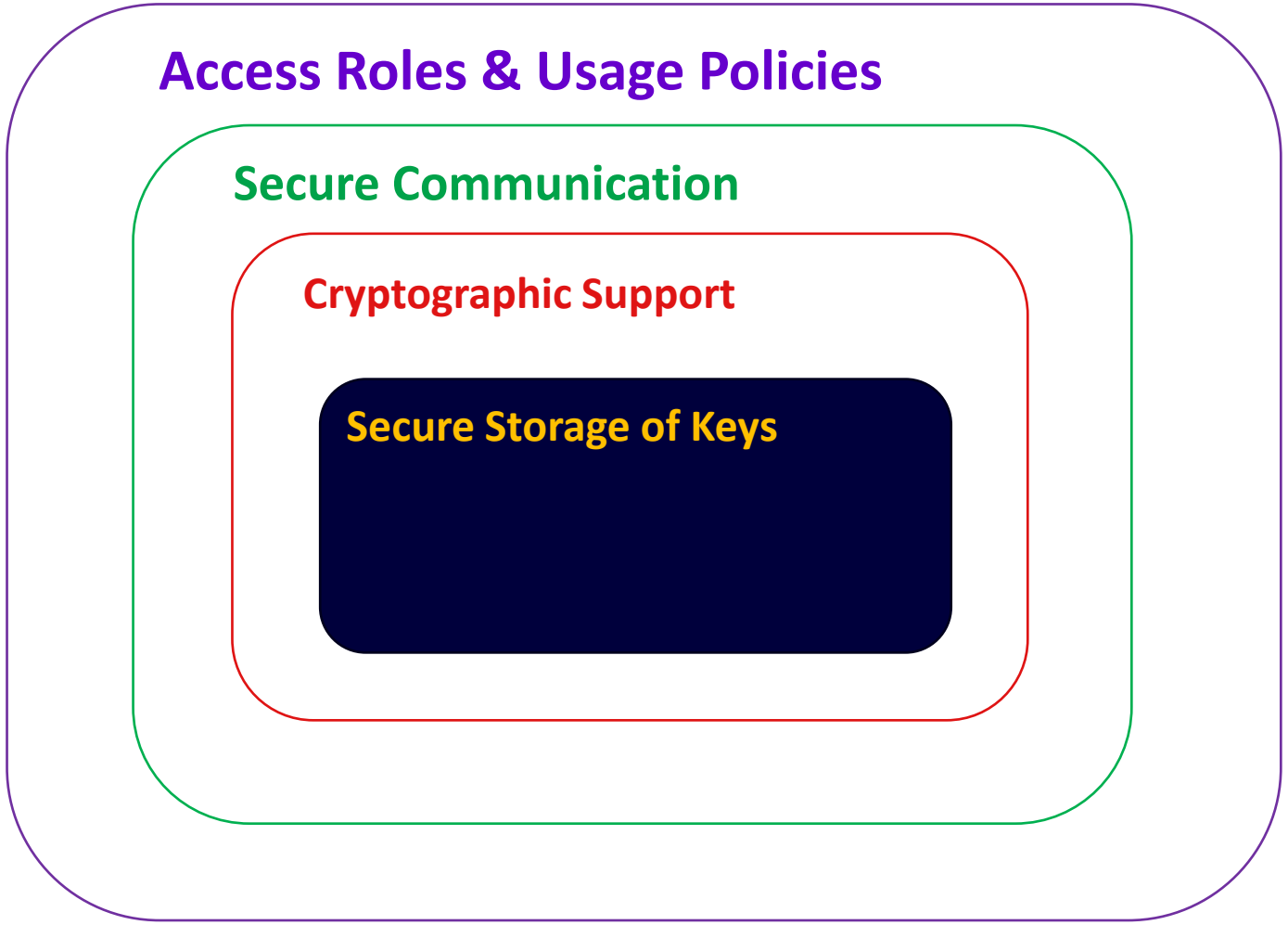
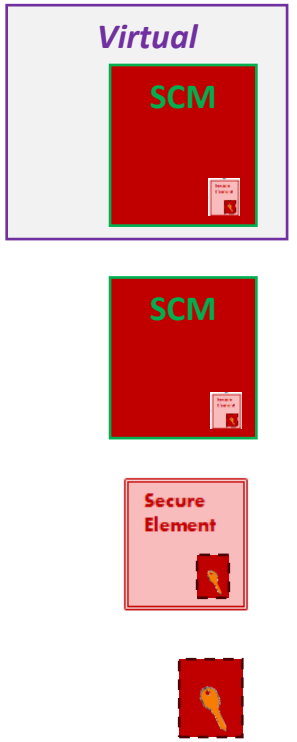
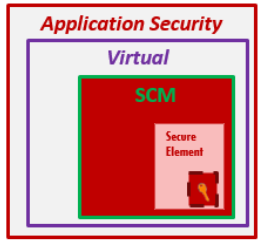
# Complexity → reduced by Modularization – Layer 1-4 core modules



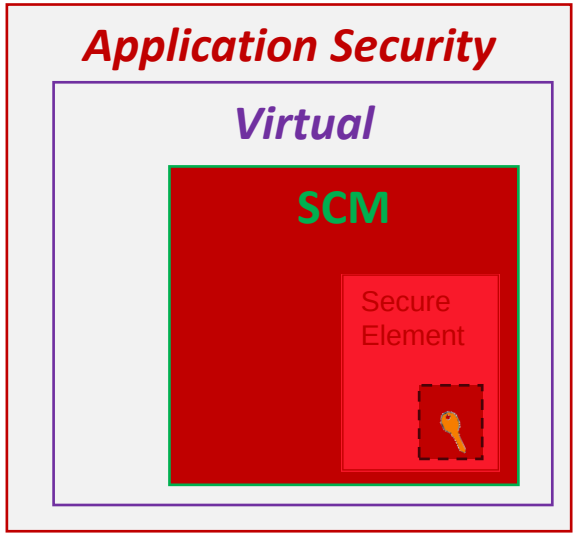



# Layer 5: Application Security

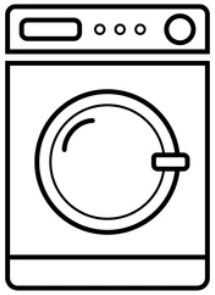
*substantial level*








**IoT**



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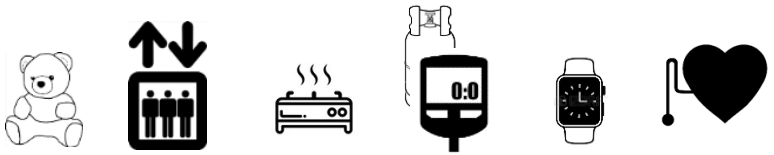
**SmartHome**

**C-ITS**

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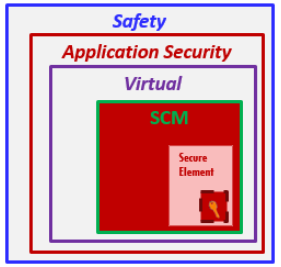
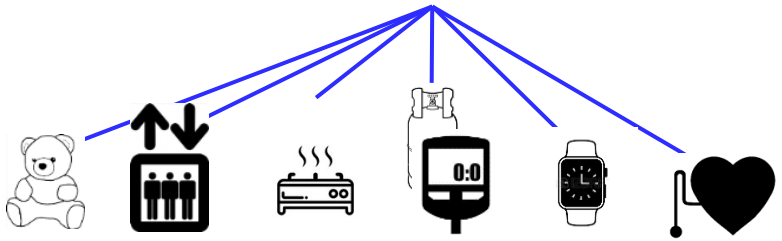
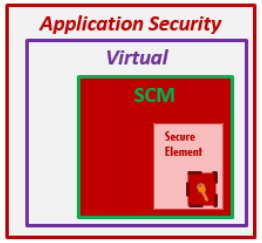
# Layer 6: Safety

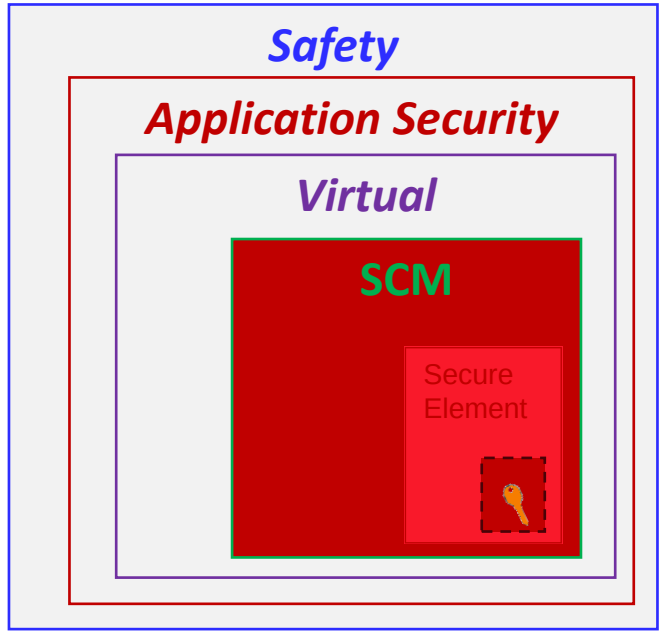



New Legislative Framework










## Security4Safety (S4S)

In case the **IT Security** is fulfilled in layers 1-5, safety requirements could be checked by **Continuous Monitoring**



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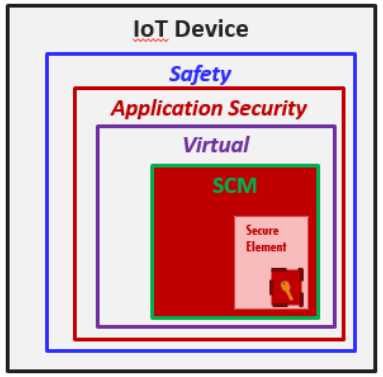
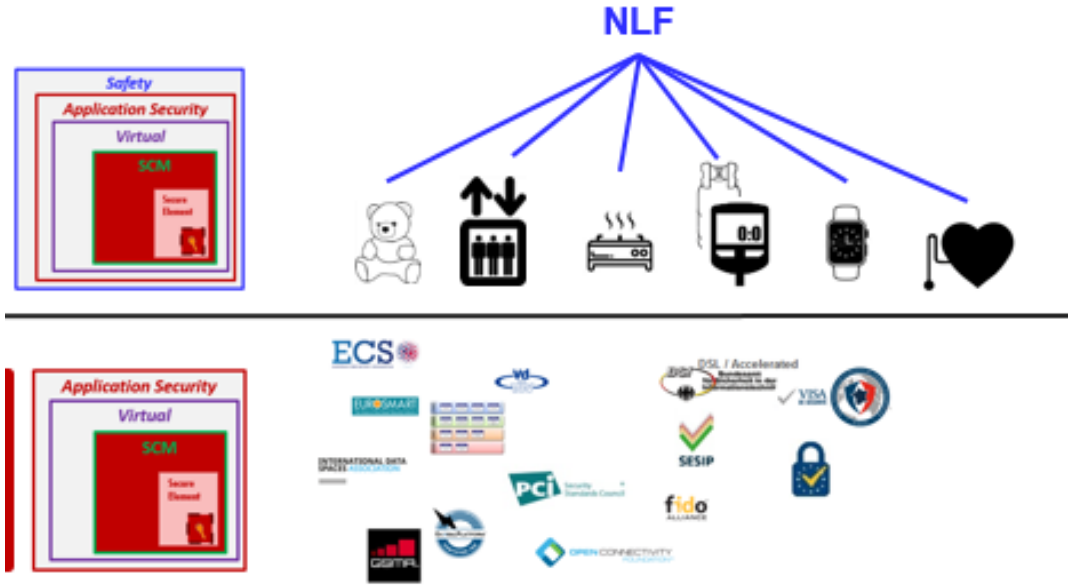
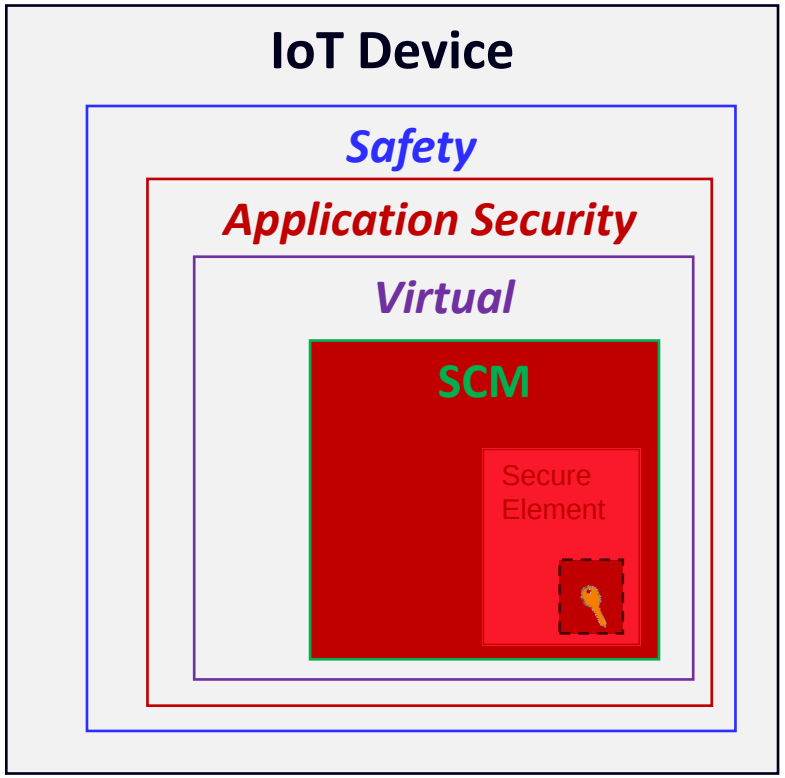
# Layer 7: Functionality (App)



# Cyber Resilience Act

- European Union is still lacking an all-encompassing approach to Cybersecurity
- Cybersecurity provisions in current legislation are limited to specific product groups, incomplete or only applicable on a voluntary basis (why was “Automotive” fully excluded from CRA???)
- Why has European legislator not made use of the existing Cybersecurity Act (CSA) framework by simply making its schemes, together with their associated assurance levels and conformity assessment procedures binding?
- Instead, the European legislator opted for a new horizontal policy framework that, similar to the CSA, does not only cover tangible digital products such as connected devices, but also non-tangible digital products such as software products embedded into connected devices.
- We very much appreciate that all products under the scope of the CRA will have to comply with the proposed cybersecurity requirements, irrespective of their risk level. Thus, all manufacturers will be obliged to take appropriate cybersecurity measures before placing their products on the market as well as during their products’ lifecycle.
- Apart from setting out ambitious cybersecurity requirements, it is crucial to ensure their consistent and effective compliance.

# Cyber Resilience Act

- The European legislator has rightly chosen a risk-based approach:
  The higher the risk level of a product, the more stringent the applicable conformity assessment procedures.
- However, the proposal falls short of implementing the risk-based approach consistently and coherently.

The Cyber Resilience Act (CRA) proposal is a starting point, but needs further strengthening on a number of issues

- a coherent and stringent implementation of the risk-based approach
- corresponding conformity assessment procedures.

# Cyber Resilience Act

## Central demands by the TÜV association

- 1. Stipulate an independent conformity assessment for all critical products
- 2. Expand the list of critical products to include, amongst others, consumer products
- 3. Require the application of harmonized standards to non-critical products for a presumption of conformity
- 4. Ensure coherence with conformity assessment procedures in sectoral product legislation
- 5. Ensure coherence with cybersecurity provisions of sectoral product legislation