

# Cyberagentur and Formal Verification

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# Agentur für Innovation in der Cybersicherheit GmbH

## ”Innovation for Cybersecurity”

### **Federal funding agency, mandated & funded by Ministries of Defense, Interior**

- Unique in thematic focus on **fundamental research in Cybersecurity** up to TRL 4
- **Interdisciplinary approach** following a **multiannual strategic framework**
- Addressing needs of **interior & exterior security communities**
- **High-risk approach** (scientific, not project management!)
- Identify and promote **cybersecurity innovation** from an early stage → mix of demand pull & tech push
- **Transparency**: Project results shared with Federal Government & the public (unless security concerns)

### **Aligns with National Cybersecurity Strategy** and its guiding principles:

- Impact on Cybersecurity of **Society, State, Economy**
- Research for an efficient, sustainable **Cybersecurity architecture** at all levels of government



# The Cyberagentur's thematic framework



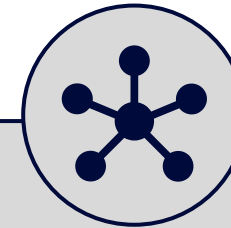
## Secure Society

1. Digital Identities
2. Cyberresilient Society
3. Human-machine Interaction
4. Cyber-enabled State
5. Digital Consumer Protection



## Secure Systems

6. Cybersecurity of the Federal Administration
7. Critical Infrastructures
8. Cybersecurity in harsh Environments
9. Secure Hardware & Supply Chains
10. Interoperability: Digitised Assets & Data Fusion



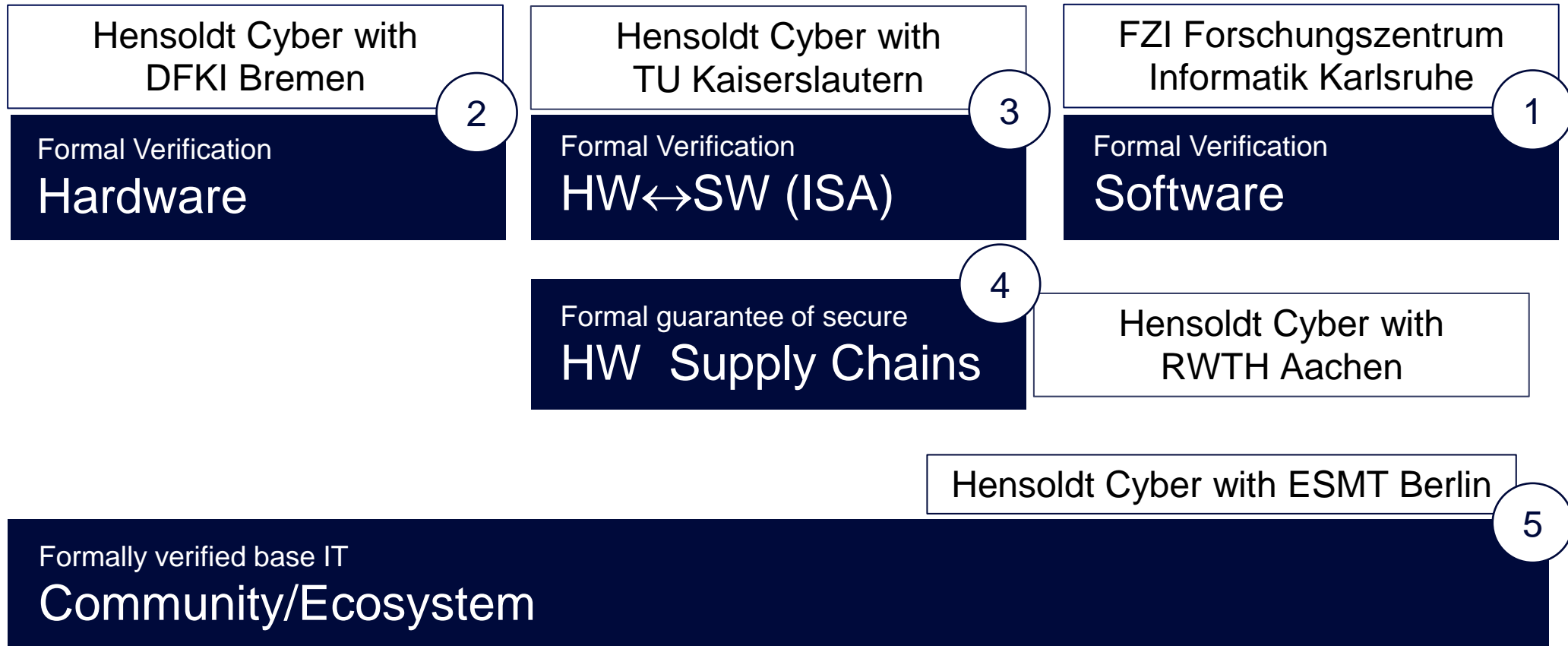
## Key Technologies

11. Communication of the Future
12. Cryptology
13. Cybersecurity through Quantum Technology
14. Cybersecurity through AI and for AI
15. Autonomous intelligent Systems

# First step in formal verification: 5 studies on research priorities

September 2022 through January 2023, funding: 450 k€

Survey state-of-the-art (tools/methods) & research / application communities; create research roadmap



# Towards an ecosystem of verifiably secure IT (EvIT)

- January 2023: Results of preliminary studies presented to Cyberagentur
- Q1-2/2023: Define follow-up program for tendering in ~Q2/2023, project start in ~December 2023
- Goals:
  - **Address priority research topics** in formal verification as identified by preliminary studies
  - Give an impulse and **propel the field**
  - Offer a pathway to **verifiably secure core IT systems**: hardware, supply chains, software, ISA in a **co-design** and **co-verification** approach
  - Bring together and grow **scientific communities**
  - Foster an **ecosystem** of commercial providers and users
  - Promote **cybersecurity** and **technological sovereignty**

# Contact info

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“Innovation for Cybersecurity”

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