EUSEC
EU SECURITY CERTIFICATION

EU-SEC The European Security Certification Framework

TRA METHODOLOGY

Fraunhofer FOKUS

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Problem Statement

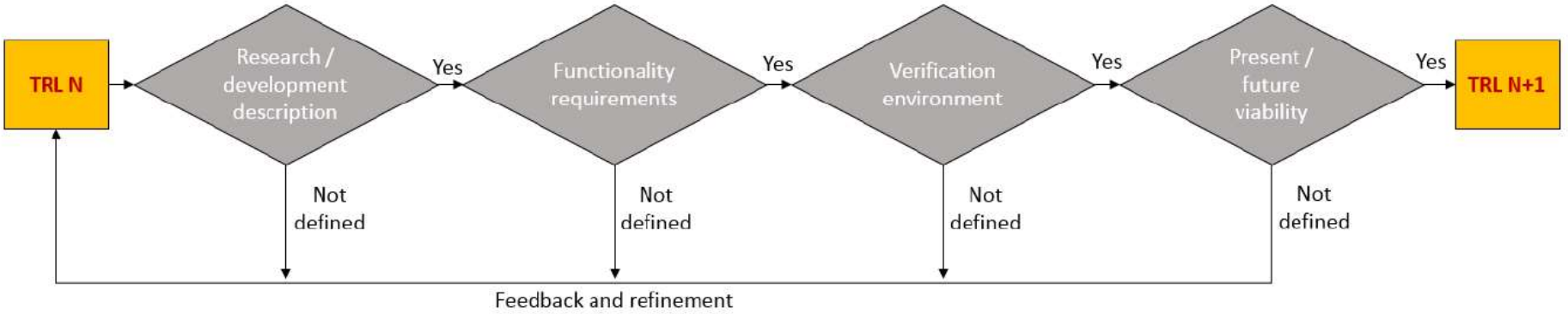
- Tools and technologies used in the EU-SEC framework ought to be refined and further developed during the project (TRL 7+)
- In order to do so, the maturity level of the individual tools needs to be defined
- There are different ways of monitoring the maturity level of a technology
- None of them seems entirely sufficient for the EU-SEC framework
- However a standardized monitoring approach is essential for a systematic refinement of the tools
- Furthermore the exploitation of the project's results would profit from an assessment of the technologies market readiness level

Objectives

- Creating a well structured methodology that is capable of assessing the maturity of the diverse tools embedded in the EU-SEC project
- Offering a theoretical background for the generated methodological framework
- Incorporating aspects of the market readiness in the assessment of the tools / technologies being evaluated
- Applying the new methodology in order to define the maturity level of the different tools / technologies of the EU-SEC framework
- Deriving next steps for the refinement / further development of the tools with a maturity < TRL 7

Technology Readiness Assessment (TRA)

Methodology



- Categorization of criteria used to evaluate the Technological Readiness Level (TRL) into:
  - A **description** of the research and developmental activities that have taken place
  - The **requirements** concerning the functionality of the technology
  - A definition of the **verification** environment
  - The technologies present and future **viability**

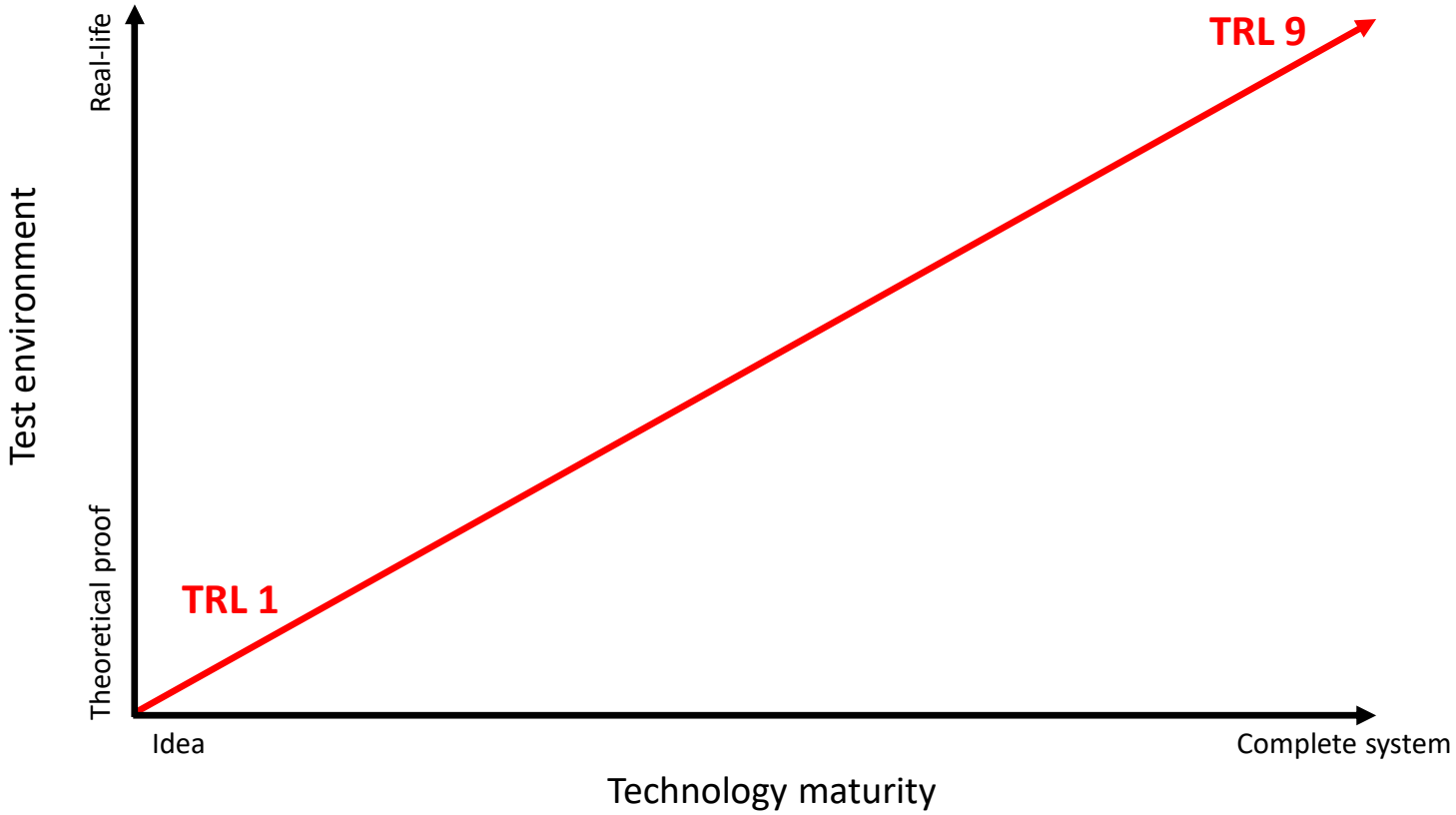
Technology Readiness Assessment (TRA)

Methodology

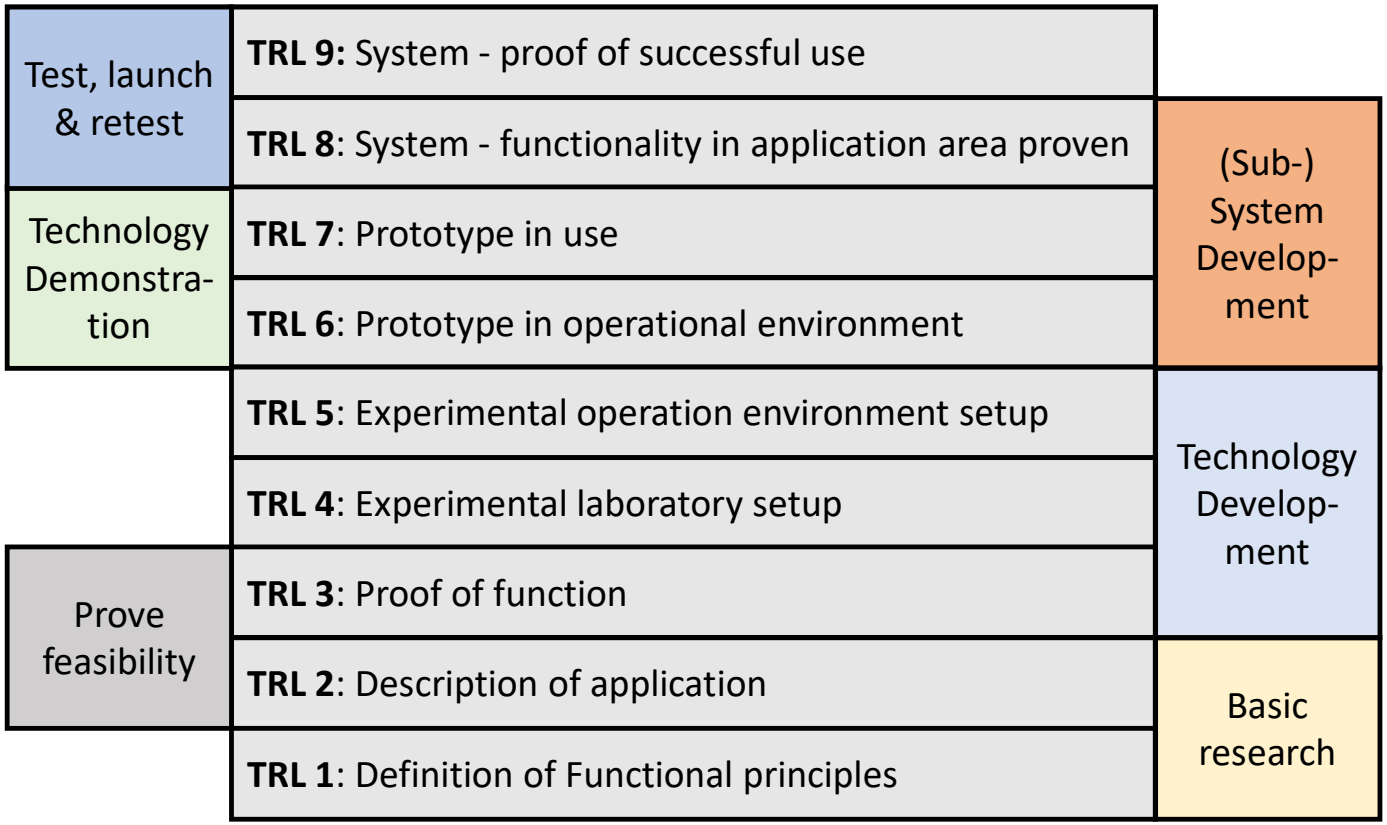
Description	Requirements	Verification
• Type and extend of conducted research • Type and extend of development • Description of subparts	• What's needed to ensure functionality? • Interfaces for interoperability • Interfaces with surrounding	• Definition of test environment • Discrimination against intended / real environment (simulation, real data)

Viability	Market Readiness Level (MRL)
• Potential for improvement • Comparison of present and future functionality • Effort needed for improvement	• Actions taken to ensure economic success • E.g. Assessment of market potential, identification of customer's needs…

Single Technological Readiness Levels (TRL)



Single Technological Readiness Levels (TRL)



Conclusions

- Based on existing TRA methodologies a new methodology could be derived
- This methodology is suitable for the diverse tools / technologies used in the EU-SEC framework
- The market readiness level can be assessed parallel to the TRL but in a less standardized manner
- The TRA methodology can be used as a starting point for the elaboration of a systematic innovation management plan