



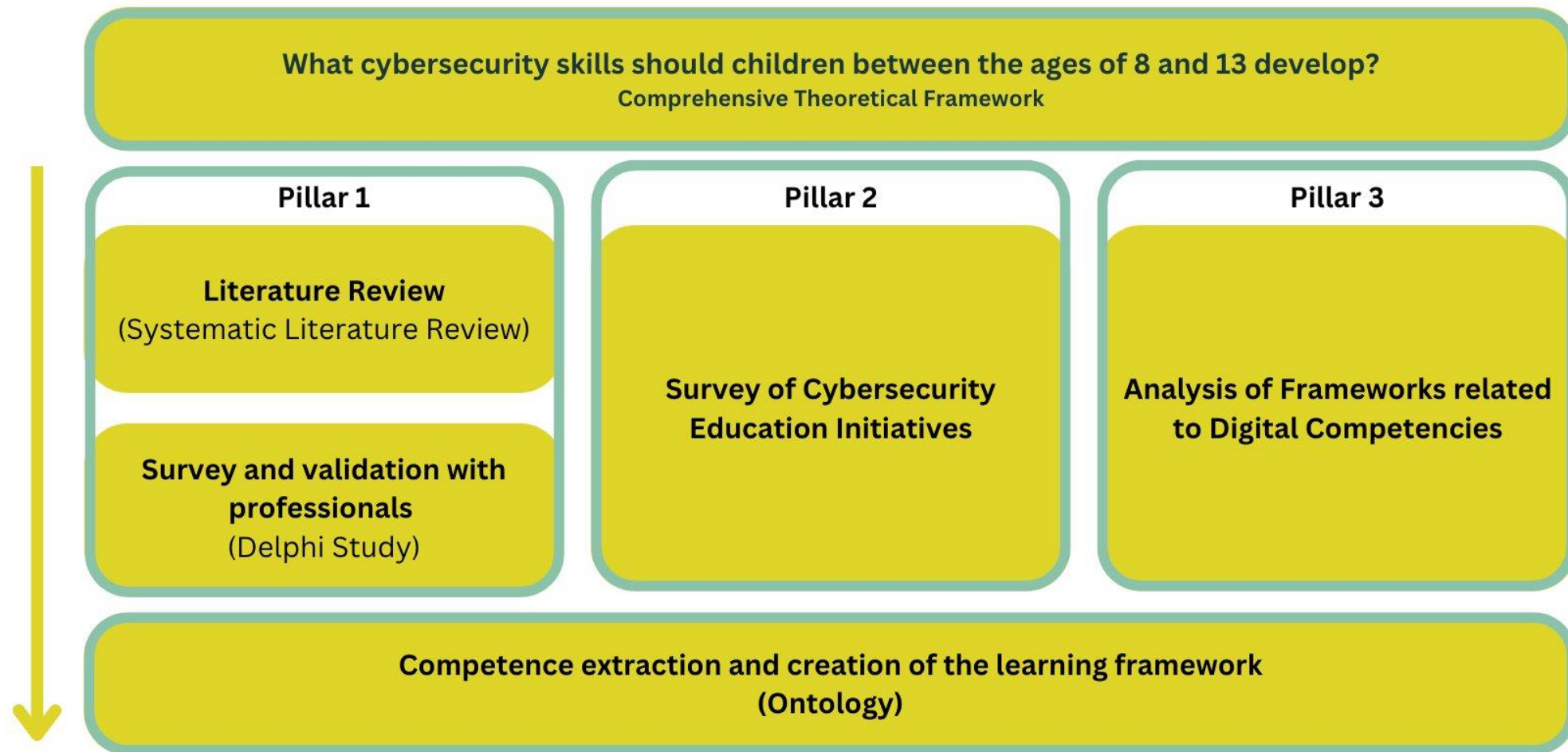
# The SuperCyberKids Learning Framework



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# Development of a competency framework

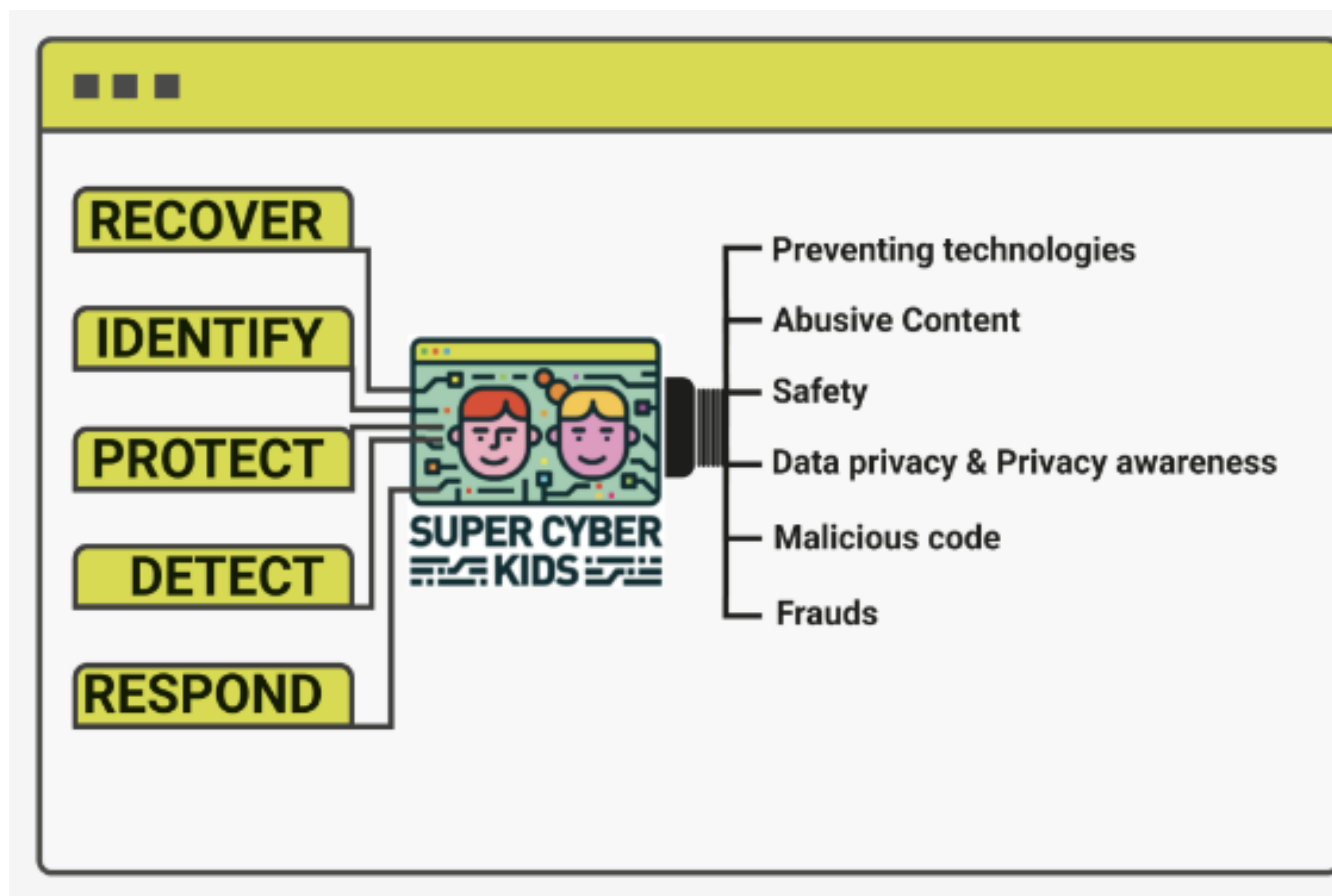


## Summary of the Pillars

Literature Review	Initiative Survey	Framework Analysis
<ul style="list-style-type: none"><li>• Systematic Literature Review</li><li>• Identified over 500 necessary skills</li><li>• Validation of skills by experts</li></ul>	<ul style="list-style-type: none"><li>• 65 existing programs analyzed</li><li>• Best practices identified</li><li>• Success factors evaluated</li></ul>	<ul style="list-style-type: none"><li>• EC digital competence frameworks</li><li>• Self-assessment tools</li><li>• Educational guidelines</li></ul>

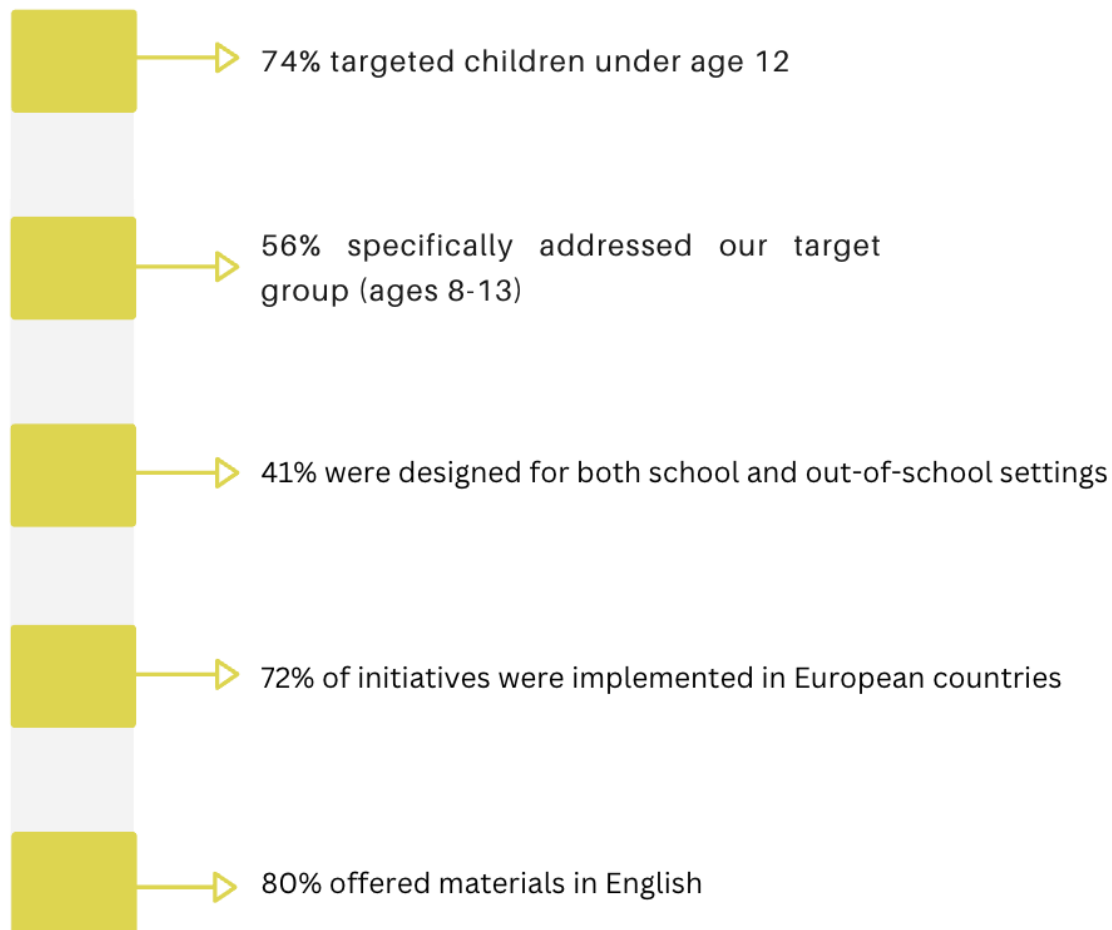
## Literature Review – Key Findings

- Over 500 relevant skills were extracted from the literature and the Delphi study
- Validation via 2-Round Delphi Study with 20 Professionals
- Matrix-based Approach
- Literature review with six leading databases (Prisma)





# Initiative Survey – Key Findings



- In our comprehensive survey, we examined initiatives across Europe and beyond, analyzing their approach to cybersecurity education.
- Each initiative was systematically coded using a structured survey form covering four key areas:
  - Description of the initiative/program
  - Competency domains addressed
  - Learning path and curriculum design
  - Additional observations and context



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# Framework Analysis



The pillar is based on nine EC initiatives, including for example:

- DigComp 2.2 (digital citizenship skills framework)
- DigCompEdu (framework for teachers)
- SELFIE (self-assessment tool for schools)
- ECSF (European Cybersecurity Skills Framework)
- Guidelines on blended learning and cybersecurity aspects were also taken into account.



# Super Cyber Kids Learning Framework

(based on an ontology)



## Definition:

The SCKLF-Ontology is a systematic model that describes, organizes, and categorizes competencies and skills in the field of cybersecurity.

## Components of the ontology:

- **Skills taxonomy:** identification of relevant skills (e.g. data protection, fraud prevention).
- **Cybersecurity domains:** areas such as malicious code, data security, fraud prevention.
- **Categories and relationships:** linking skills to learning outcomes and game-based activities.