

Safety Concept of Highly Automated Driving for a Transverse Guidance System

Identifying unknown hazard scenarios is challenging, as parameter variation techniques drive scenario exploration.
 >>What techniques can be employed to reduce the number of simulated scenarios?

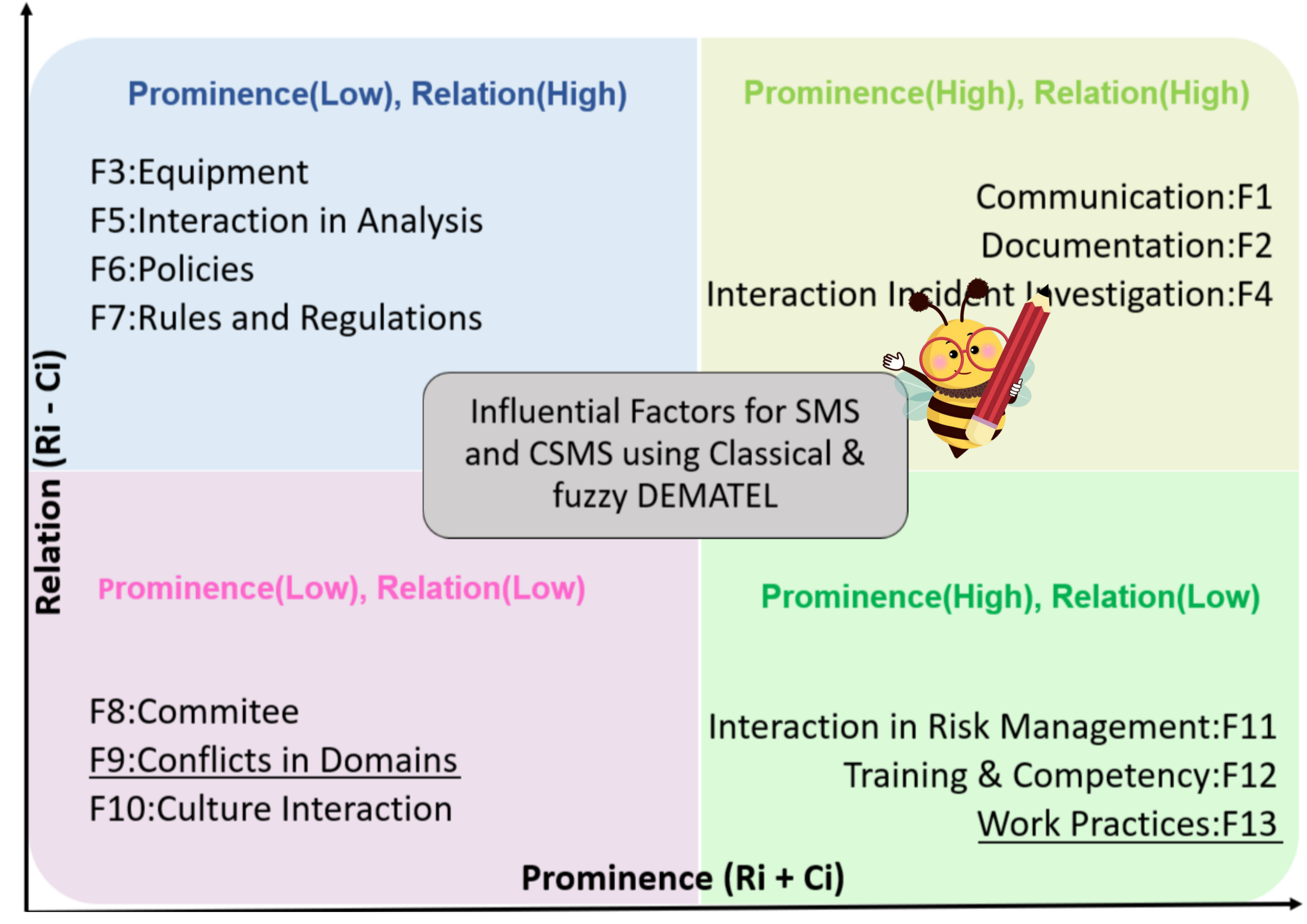
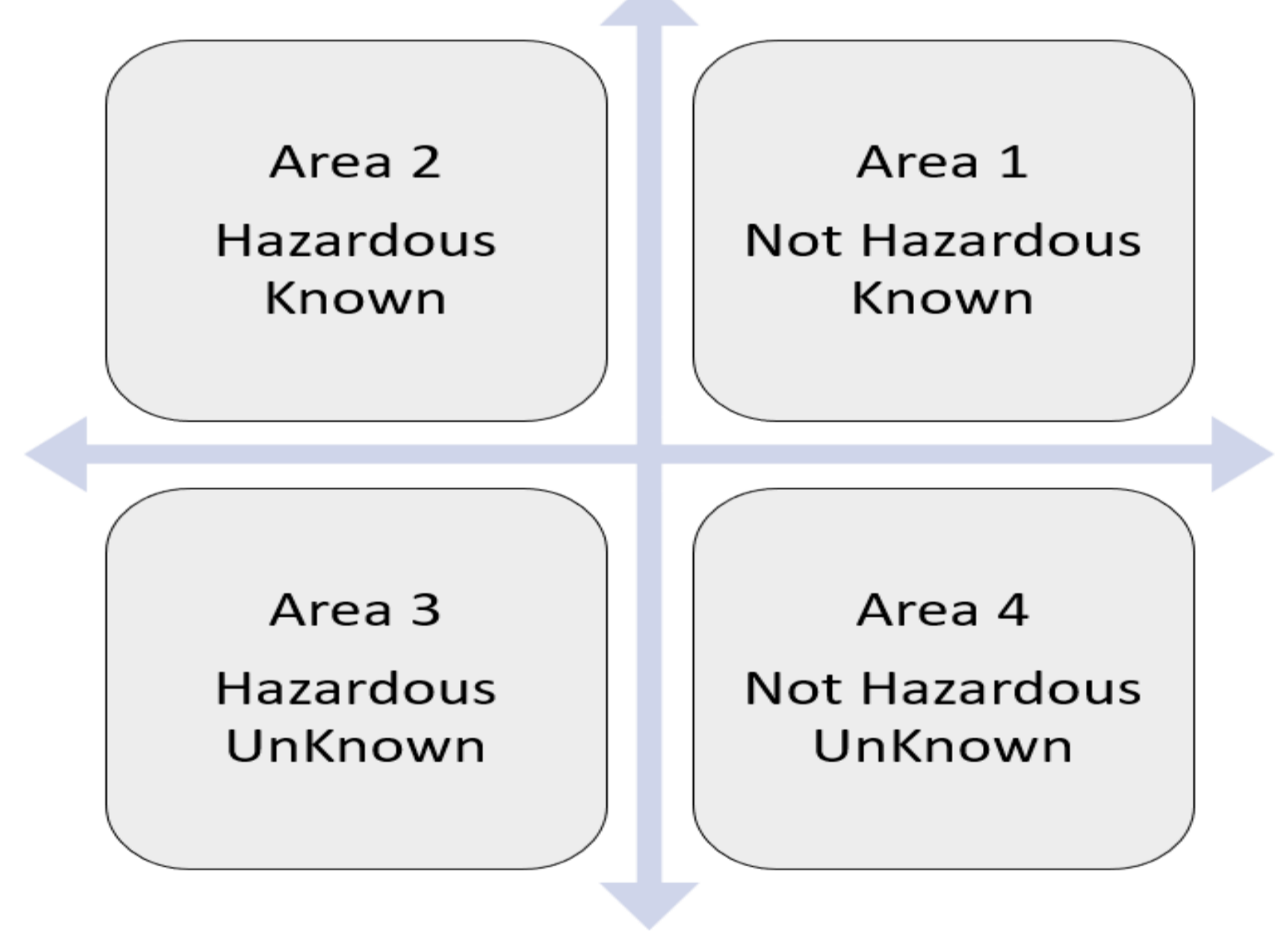
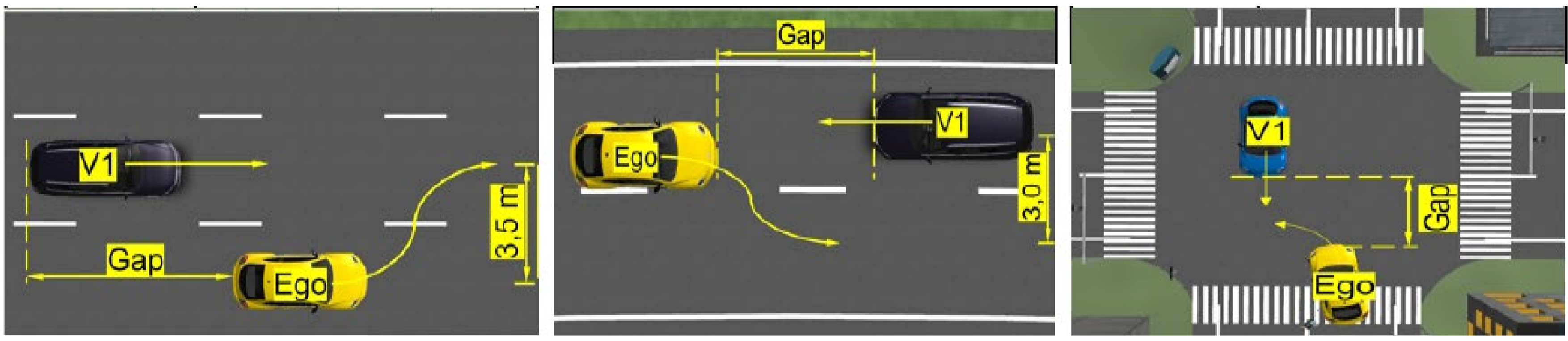
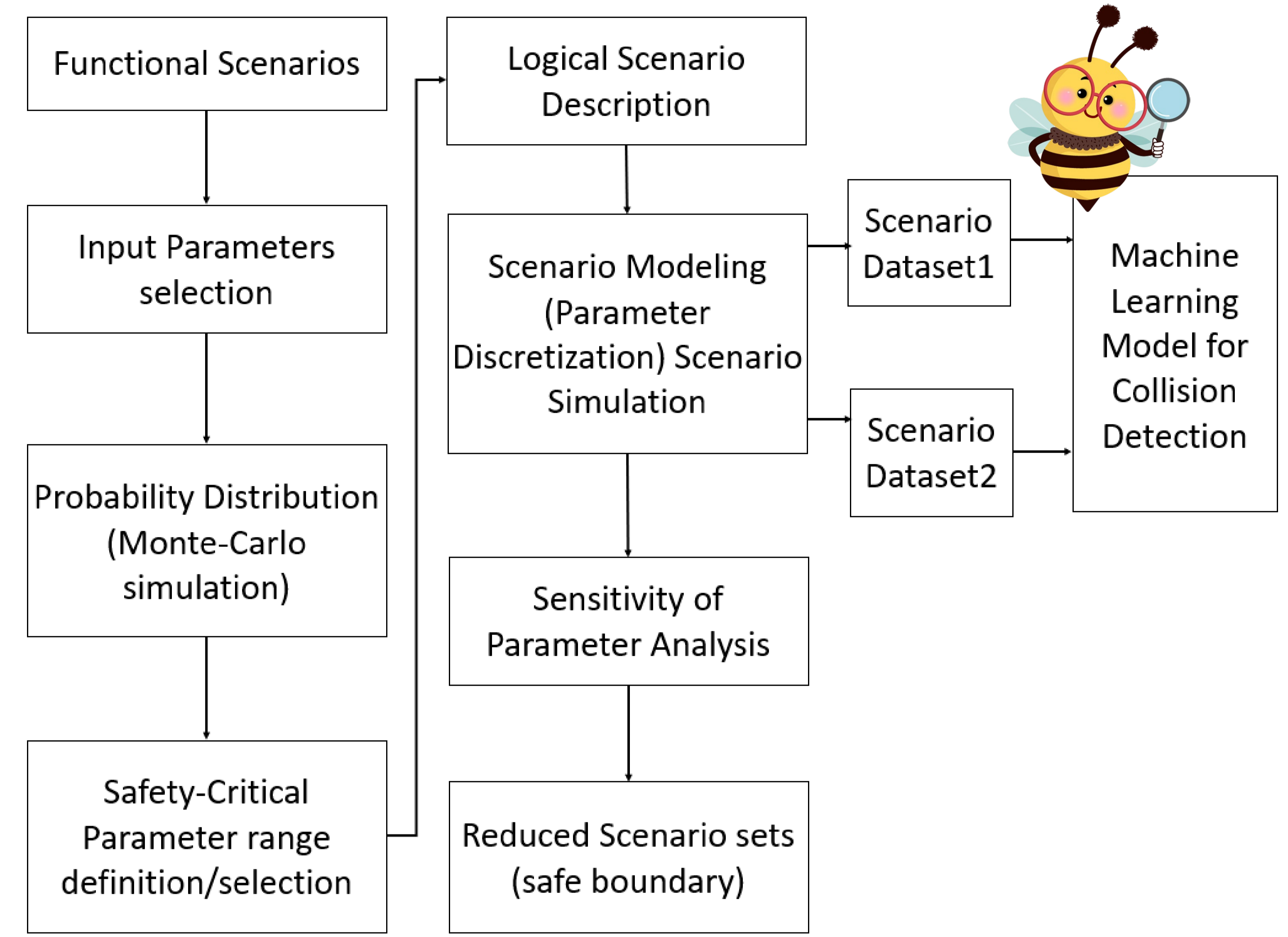
Modeling scenarios is time-consuming and labor-intensive.
 >>What approaches can be used to model & simulate scenario sets to identify potential unknown-unsafe scenarios?

The complexity of integrating safety and cybersecurity requires management systems that identify product risks using interaction factors.
 >> How to identify and evaluate the interaction of safety management system (SMS) and cybersecurity management system (CSMS) in automated vehicles?

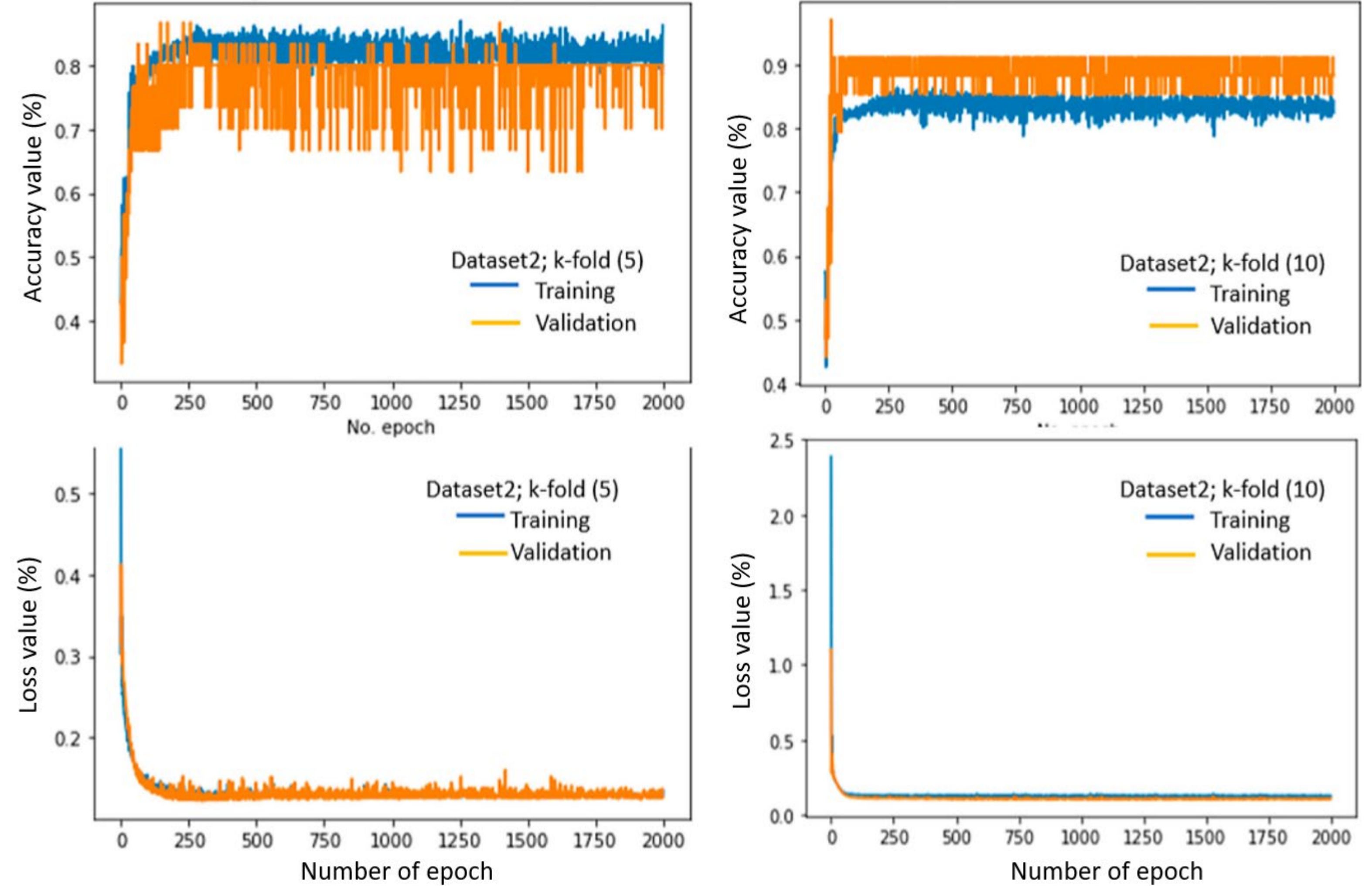
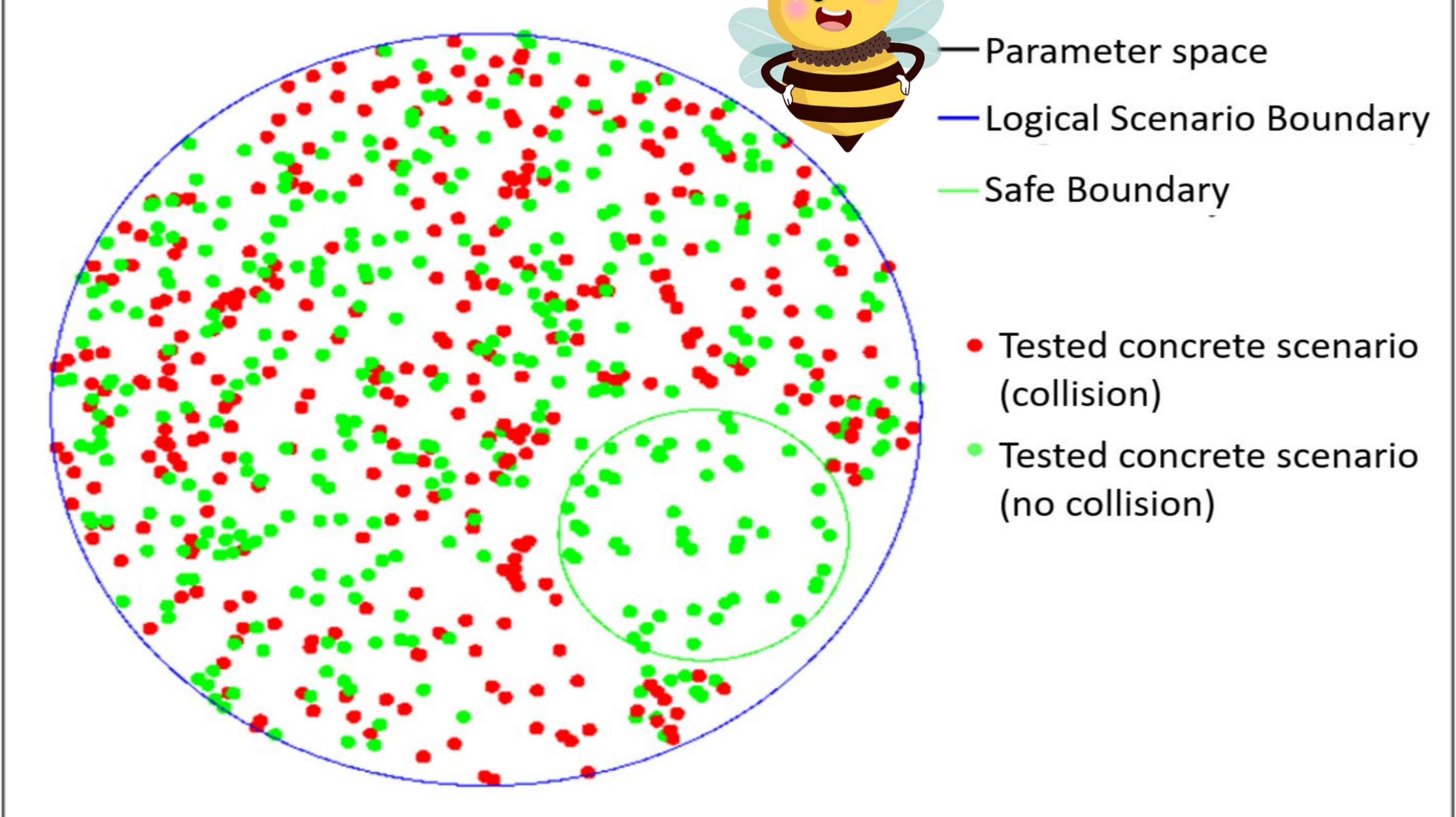
Presented a systematic approach for scenario-based analysis to support Functional safety and prepare safety evidence.

Proposed a ML model for collision detection using safety-critical parameter variation techniques.

Exhibited the relationship between influencing factors for SMS and CSMS interaction.



Use case: Ego-vehicle performing Lane change maneuver (scenarios modeling and simulation).



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