FROM MONITORING TO INTELLIGENCE IN

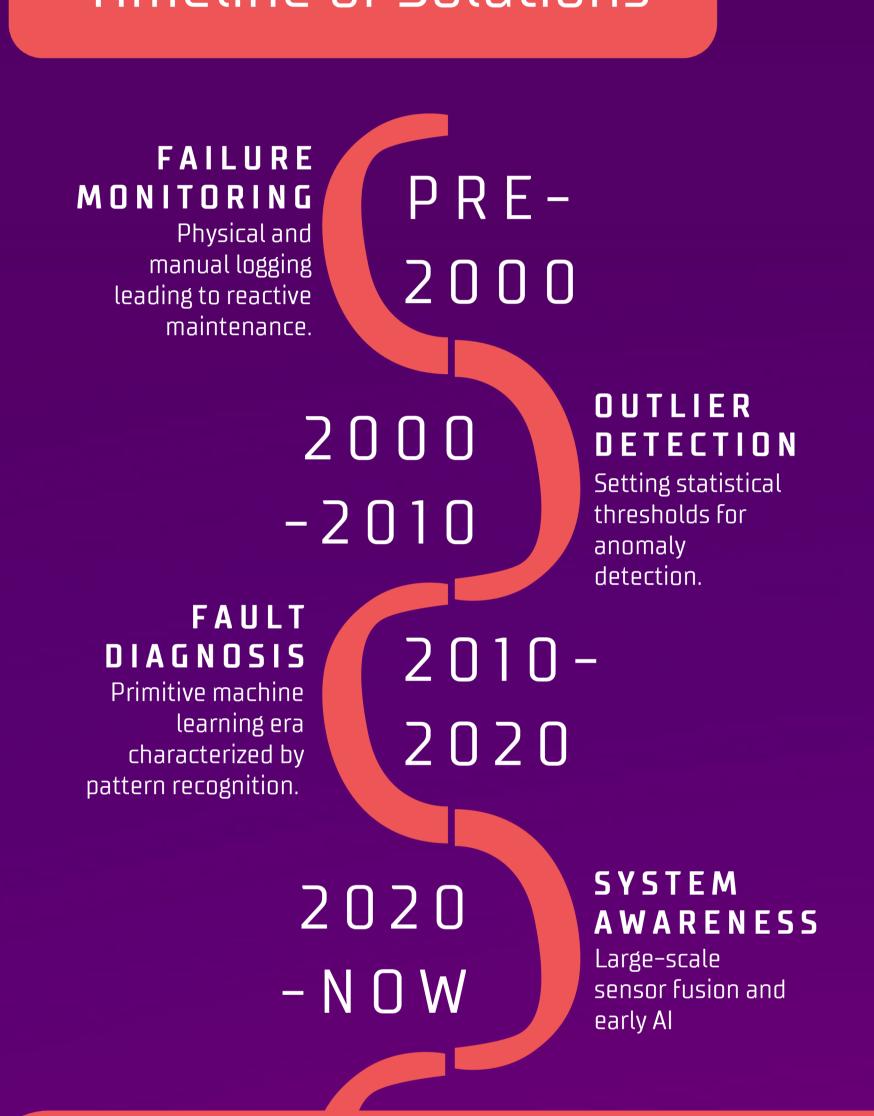
CYBER PHYSICAL SYSTEMS

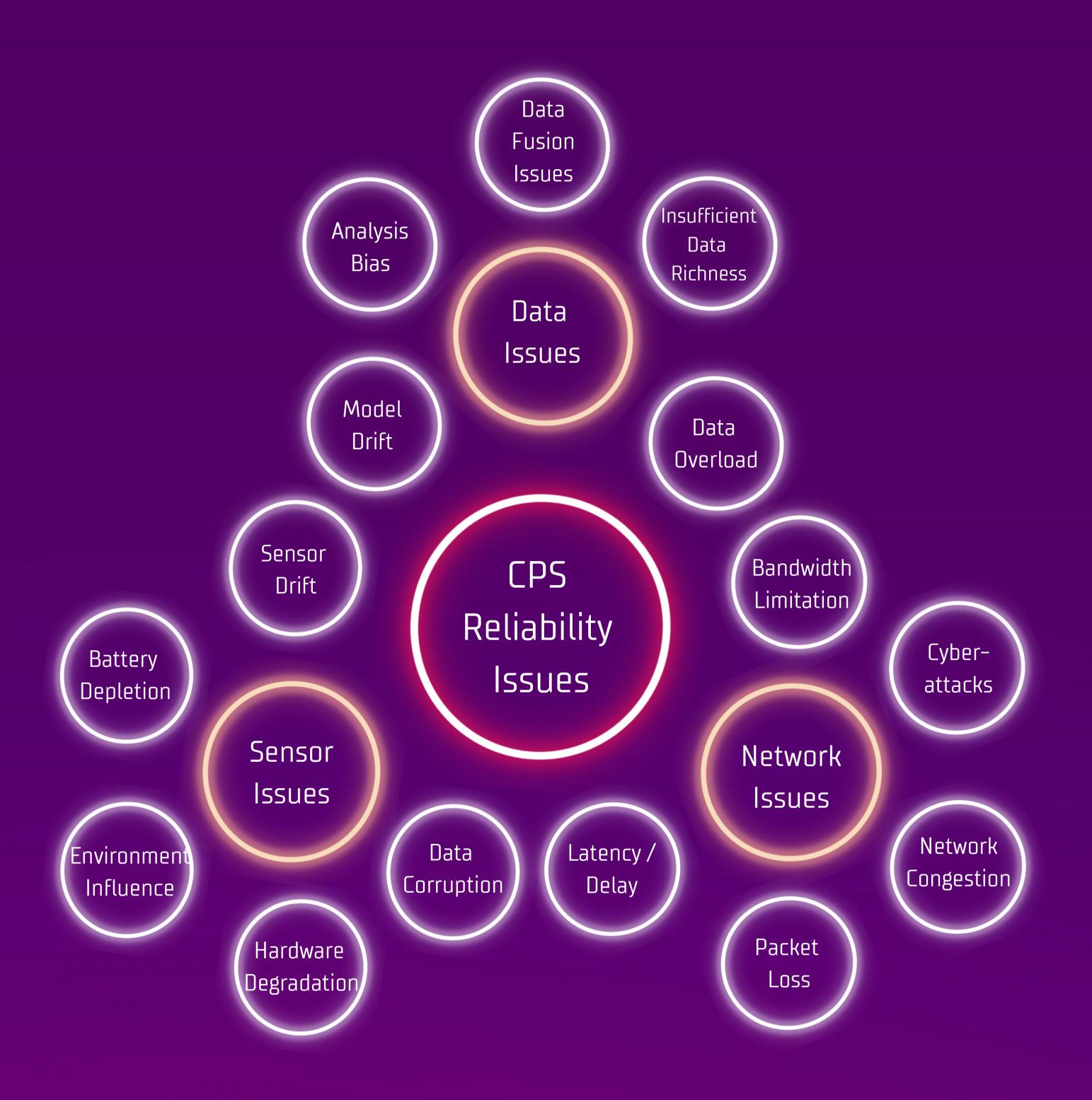
Dr. Sabari Nathan Anbalagan s.n.anbalagan@utwente.nl

The Problem

How can we ensure reliability and resilience of CPS amidst increasing complexity and emergent issues?

Timeline of Solutions





The Future – Agentic Al for CPS Reliability

Agentic AI refers to goal-based AI models that can Think, Execute and Observe autonomously using tools to interact with external environments.

Goal-based

Agents operate with clear objectives, optimizing actions to achieve goals.

Think

Agents can analyse data using AI models and form hypothesis and plan strategies

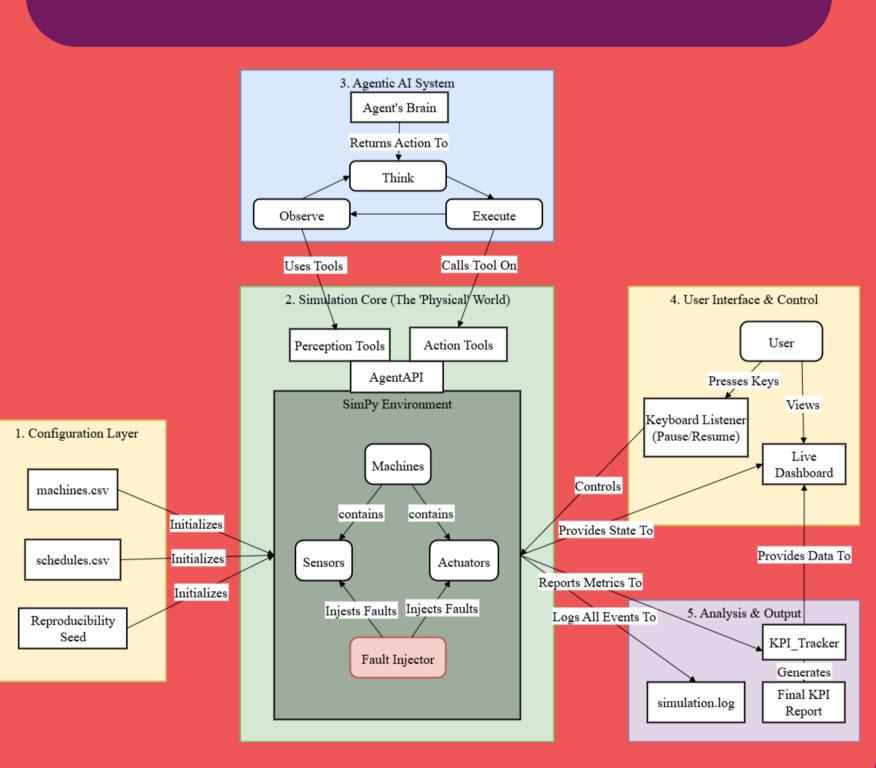
Observe

Agents monitor systems continuously, gathering feedback to refine their strategies

Execute

Agents act autonomously, applying strategies through tools to influence the environment.

The Simulator



Roadmap

Scoping & Literature Review Simulated CPS with base LLM

Demonstrate with Industry Partner









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