

# **Designing AI Silicon with Agentic AI**

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# Vertical & Horizontal **Co-Design**

Significantly Reduces 'Overdesign' Margins

Horizontal Co-Design

Vertical  
Co-  
Design



# Multiphysics Fusion Technology



Separate Tools with Value Links



Fusion API Architecture For Hyperconvergence

ANGSTROM ERA



Superior PPA, Convergence for Angstrom Era  
Rapid Integration of New Functions

AI SUPERCHIPS ERA



Multiphysics Fusion with Industry Golden Engines

# Agentic AI

Copilot

Autopilot

Agentic

Generative

LLMs

L1

Assisting

L2

Acting

L3

Orchestrating

L4

Planning

L5

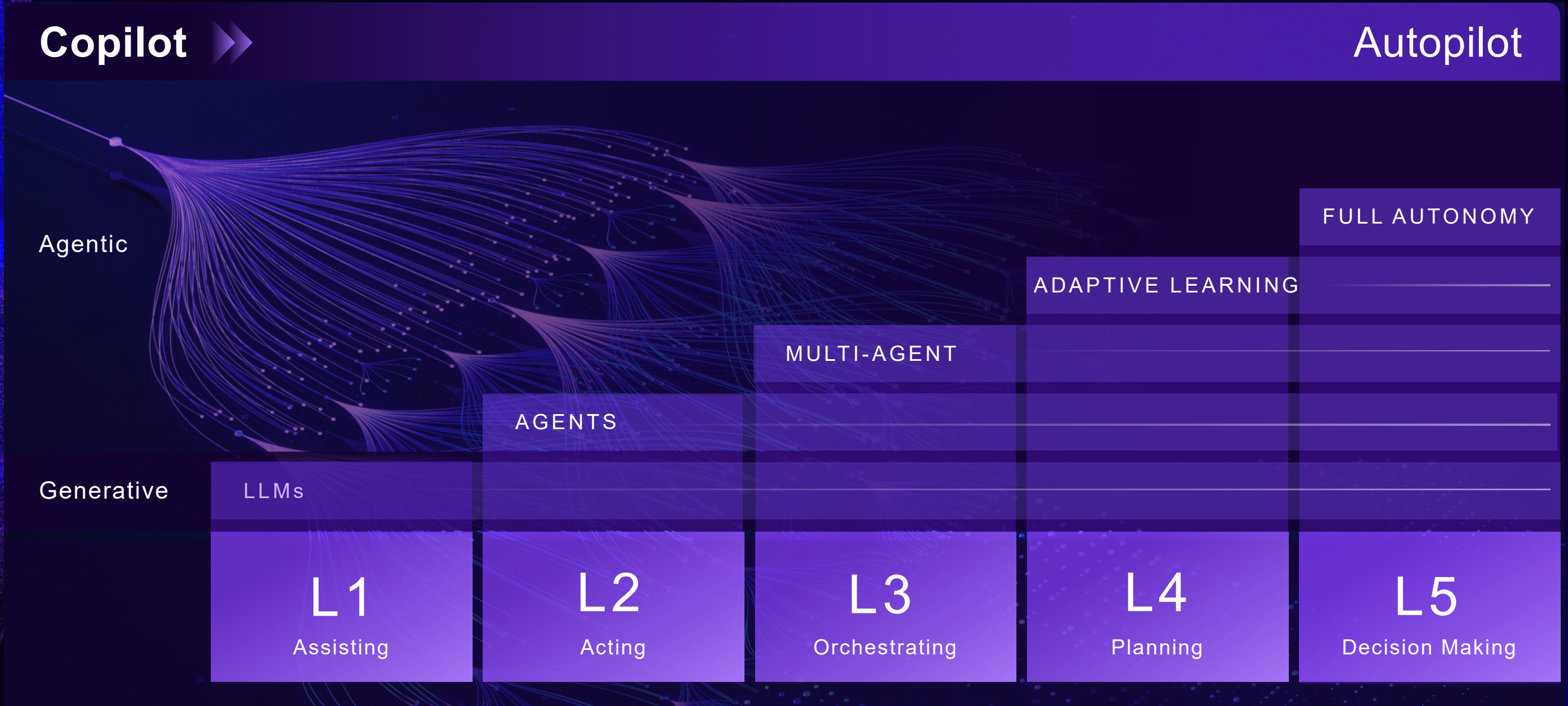
Decision Making

AGENTS

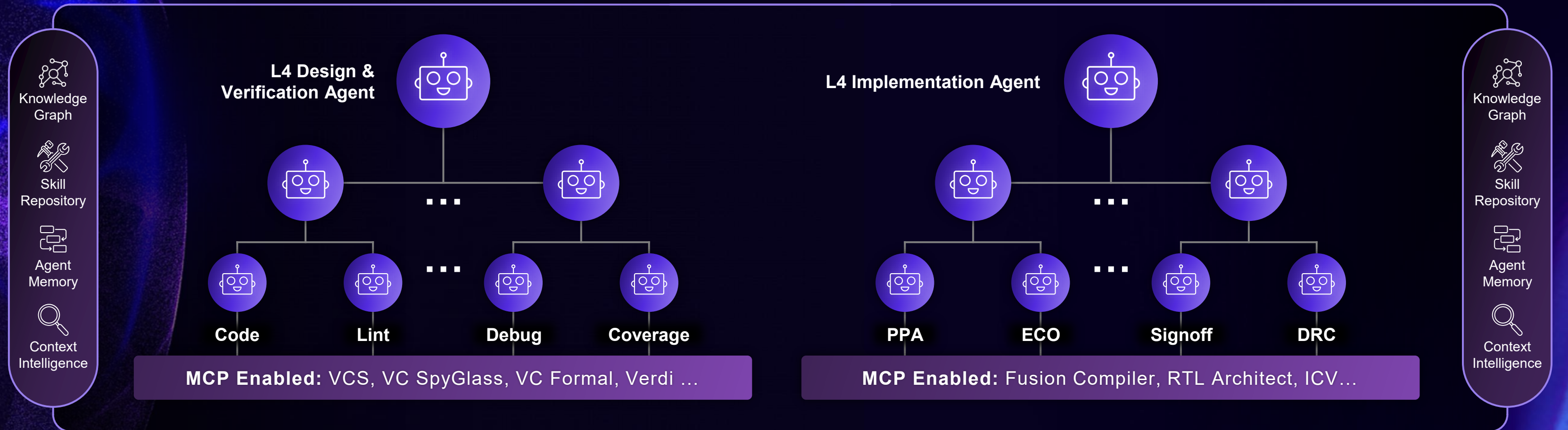
MULTI-AGENT

ADAPTIVE LEARNING

FULL AUTONOMY



# Orchestrated Multi-Agent Workflow



# Addressing Complexity & Accelerating Velocity



Advanced nodes, 3DIC,  
Gbit interfaces

Faster Development  
Cycles

First-time-right critical to  
success

Advanced AI Silicon needs Agentic AI Technology & Multiphysics Fusion

The Synopsys logo is rendered in a bold, white, sans-serif font. The letters 'S', 'Y', 'N', 'O', 'P', 'S', 'Y', and 'S' are all uppercase, while the 'Y' in the middle is lowercase. A registered trademark symbol (®) is positioned to the upper right of the final 'S'. The logo is centered horizontally against a dark blue background with a subtle, glowing circular pattern.

ROUNDTABLE DISCUSSION / 11:10 AM

**Optimizing AI Hardware for  
Training and Inference at Scale**