

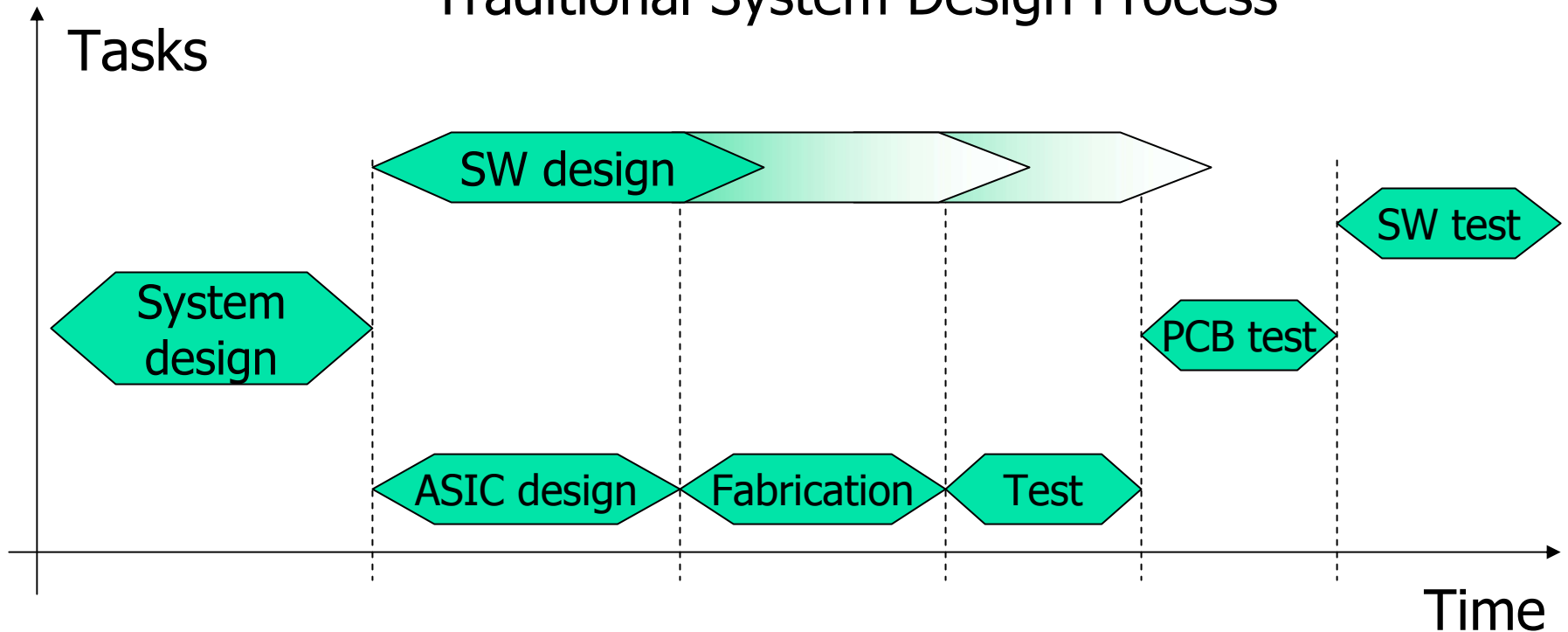
Metodologie di progettazione hardware-software



Presentazione del corso
Della Laurea Specialistica

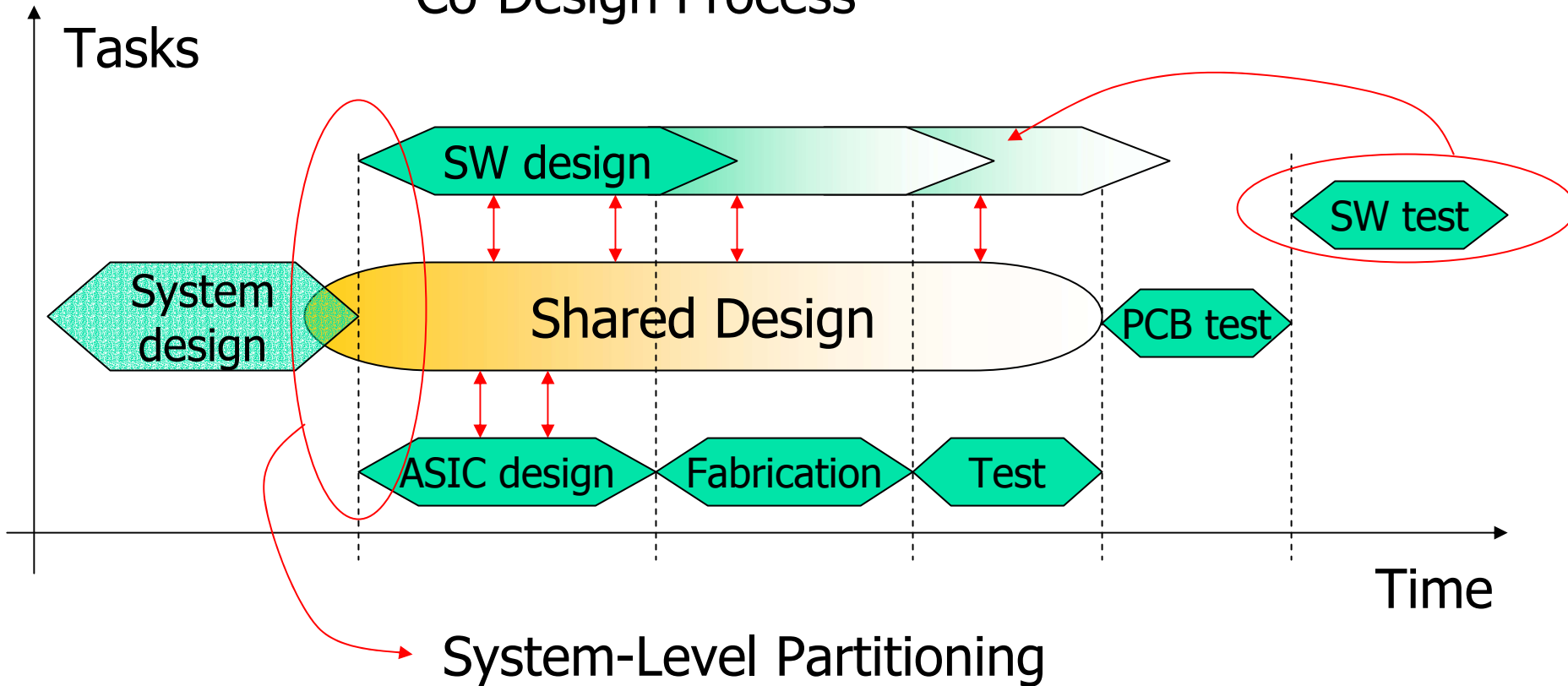
HW and SW design

Traditional System Design Process



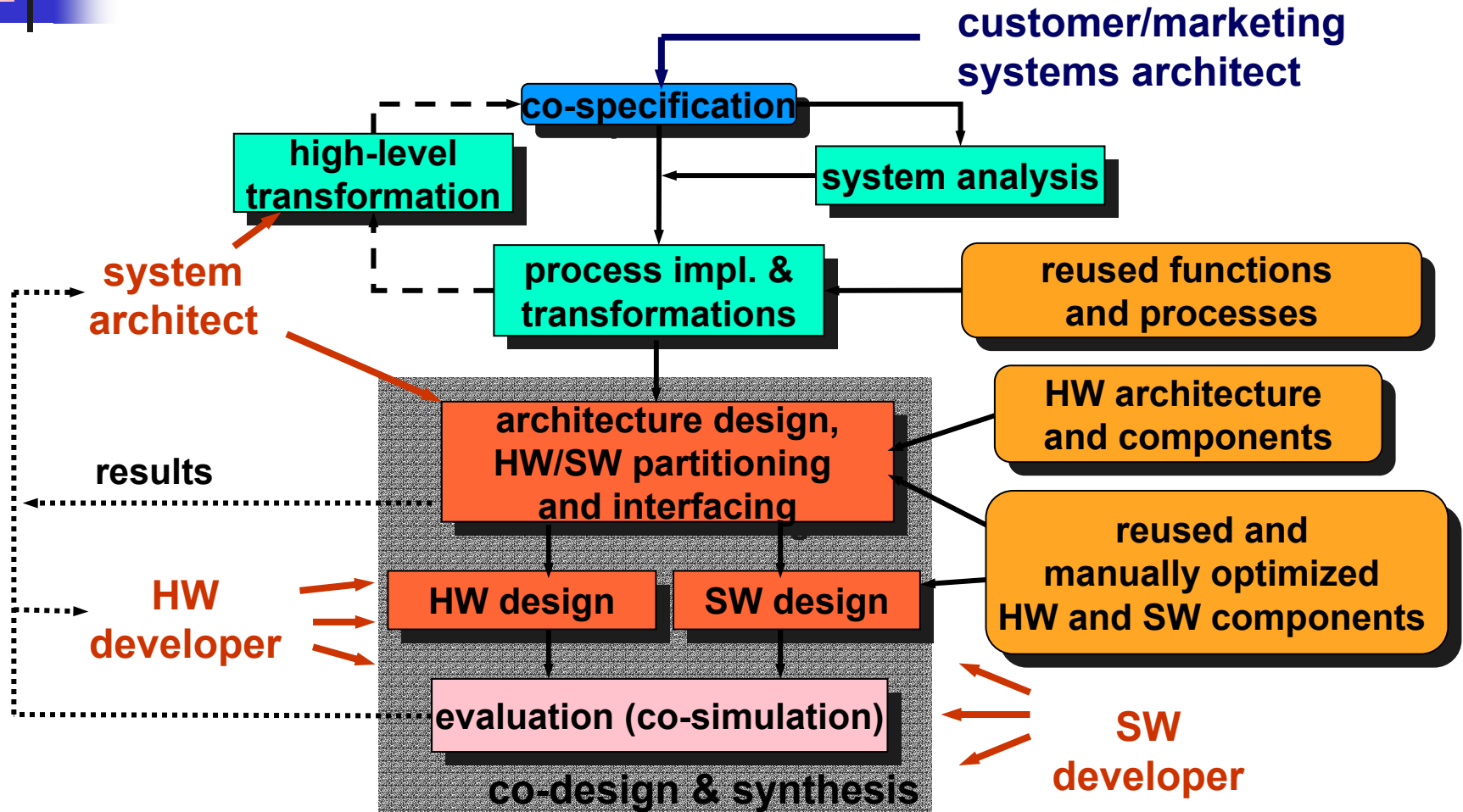
Codesign

Co-Design Process

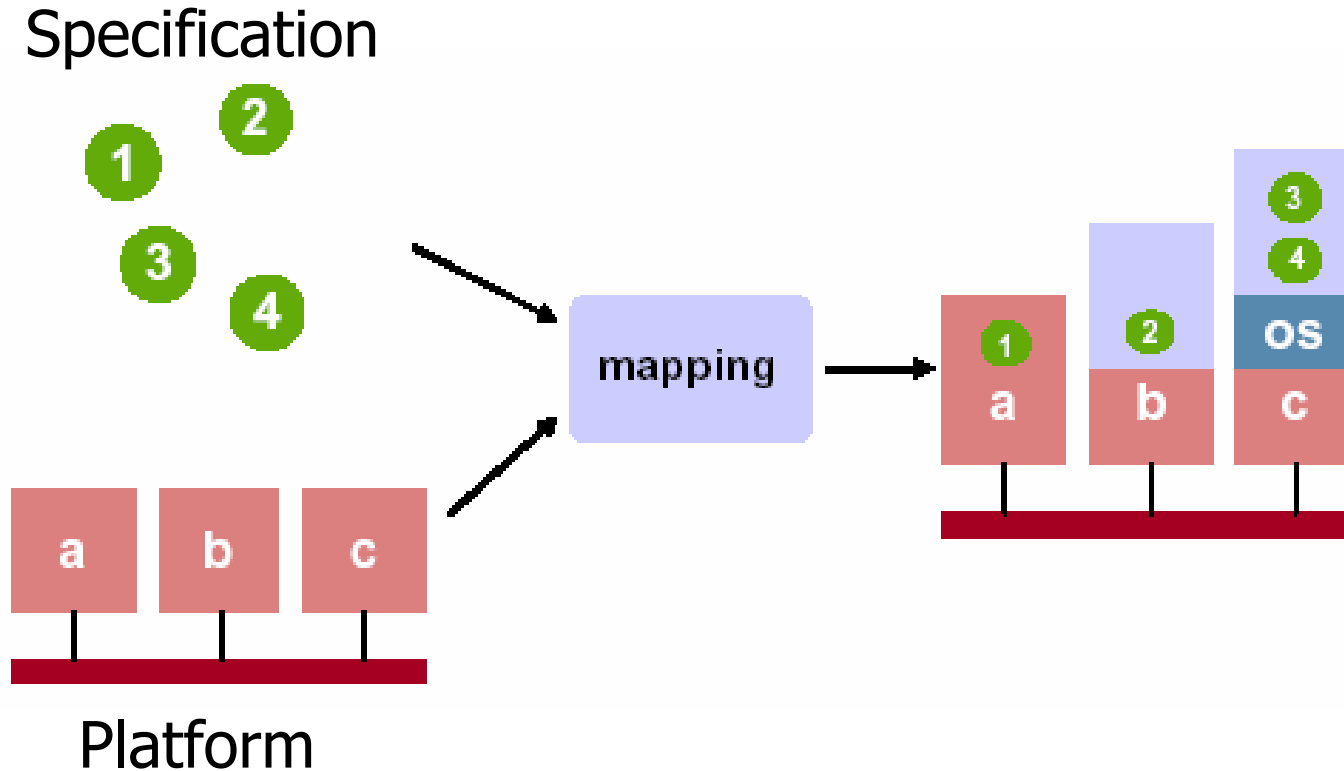


Codesign flow

customer/marketing
systems architect



Platform-based design

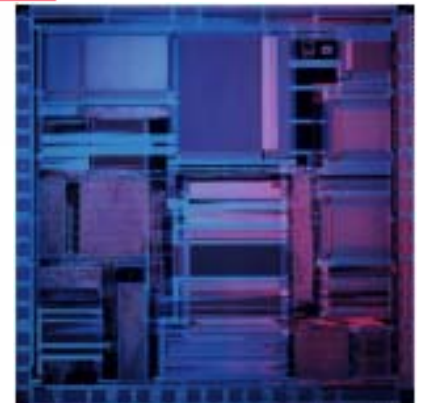
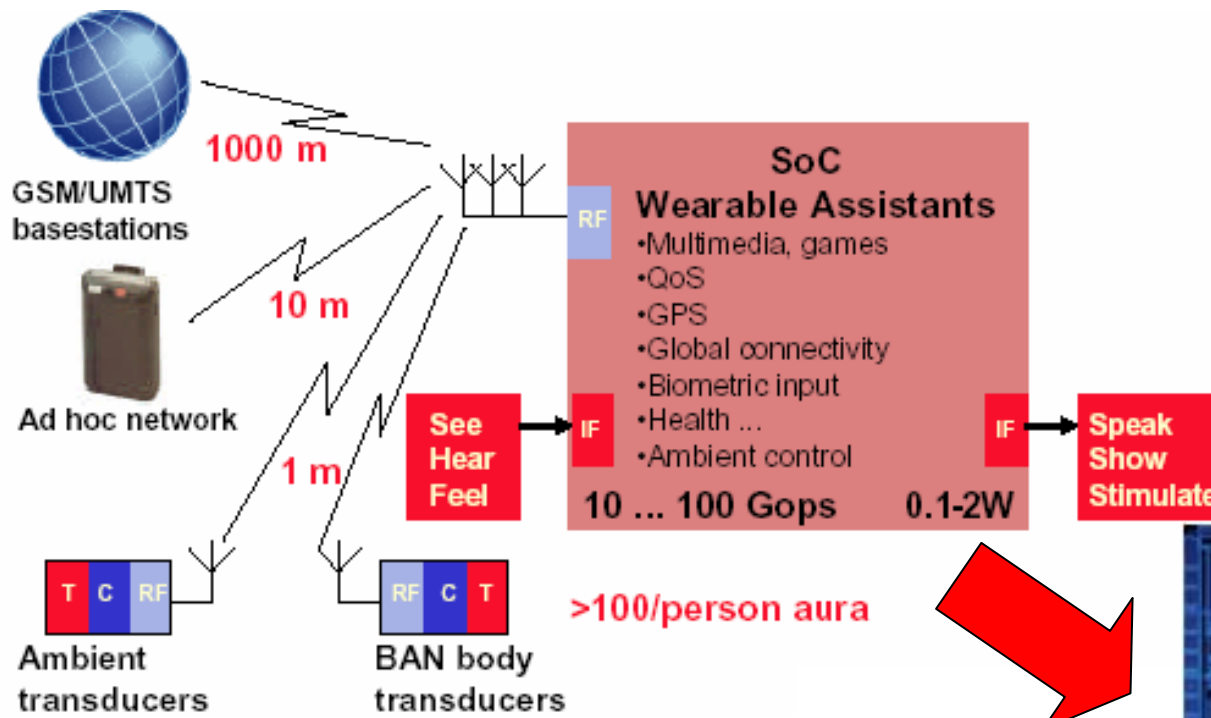




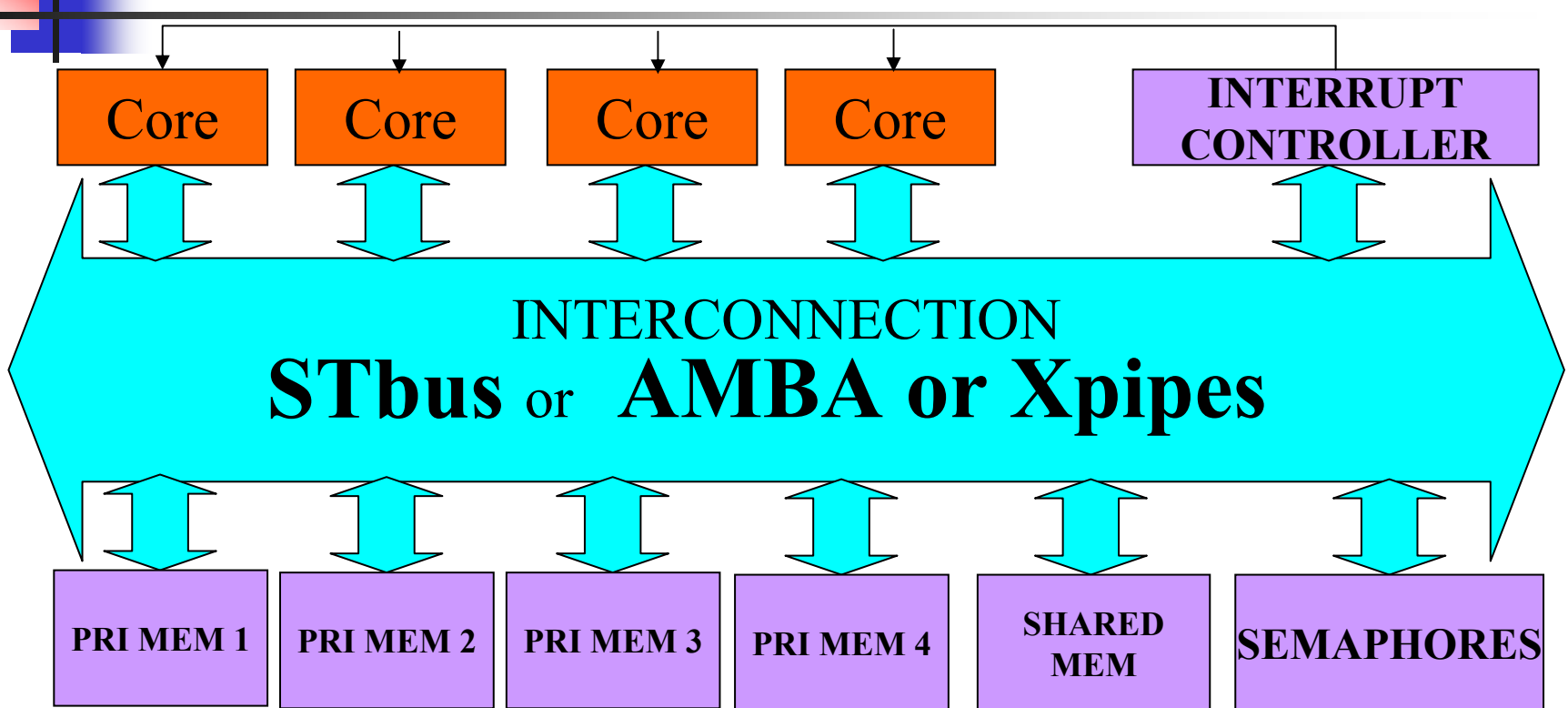
Tools and methodologies

- CAD tools are essential to success in this field
 - They must support Modeling (specification), Validation, and Synthesis in a single integrated environment
 - Major constituents of codesign
 - Modeling (Specification)
 - Validation (Verification)
 - Synthesis (Co-synthesis)
 - System-level partitioning
 - HW synthesis
 - SW synthesis
 - Interface synthesis

Application domains: SoCs



MPARM: Architecture



Simulation is cycle accurate

(~ 24 Kcycles/sec with 4 cores on a 2-proc Pentium III, 1GHz, 512MB)

Codesign of Embedded Systems

Pervasive computing systems

