

CAST

EDA Consortium Emerging Companies East Coast Member's Meeting

Impact of the Consumer Market on EDA and IP

Hal Barbour – President CAST, Inc.

10 years

100 cores

IP that works

Consumer Market - Defined

▶ Any business where the FINAL product is purchased by consumers

▶ Characteristics:

- Technology migration:

Enterprise → Small business → Consumer

(I have approx. 1 Terabyte of mass storage in my house!!)

- Solving life's nagging problems: wires, stacks of stuff, scheduled entertainment, locating, eliminating trips, incompatible products, dead zones

▶ Examples:



Thematic question

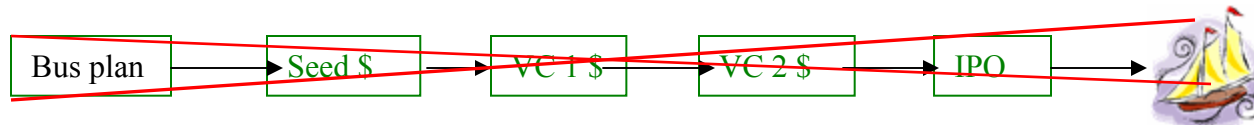
- ▶ *We know that time-to-market is crucial for consumer electronics products, but does this imply that quality-of-results, or design performance or design complexity can be compromised? Doesn't some compromise seem inevitable?*
- ▶ Position:
 - Compared to “blue sky” or “do it all” objectives, the answer is yes

BUT

 - In terms of quality: Absolutely not!!
- ▶ Market need+ focus + simplicity + fast TTM + low cost + quality =
Market Success!!
- ▶ Example: Ipod
 - Addressed a market need
 - Many previous attempts by others failed
 - Simple & reliable
 - Apple didn't waste time reinventing EDA & IP
 - Excellent quality!!

CAST's business

- ▶ Popular Soft & Firm Digital IP Cores
 - seldom differentiate the final product
- ▶ Founded in 1993



- ▶ Creative global business model – CAST stakeholder/developer program
 - No external ownership, zero debt, & consistently profitable
 - 4 consecutive years of 50% growth in IP products
 - Between 70 & 80 IP development engineers
- ▶ Broad range of products
 - Processors, Bus interfaces, I/O devices, Still image compression, Video compression & Encryption
 - ~ 100 off the shelf IP cores ~ 550 licenses sold to ~ 400 customers
- ▶ Zero employment turnover in CAST and engineering partners
(Every product is backed by its original developer)