

# Innovation An Economic Factor

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ARM Embedded Technologies

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# Innovation

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*Change that creates a new dimension of performance*

Peter Drucker (Hesselbein, 2002)

# Innovation: Product ... The Digital Phone

- GSM – CDMA – 3G
  - Highly complex technology
  - Complex but user friendly handsets
  - Capital intensive infrastructure



*Move from Analogue to Digital  
Emergence Of Global Operators*

- *Lessons*
  - *Standards are important*
  - *Open architectures win*
  - *Digital is better*

# Innovation: The Economic Impact

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- A recent study (2005) by London Business School found that, in a typical developing country, a rise of ten mobile phones per 100 people boosts GDP growth by 0.6 percentage points.

# Innovation: In Daily Use

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- Phones let fishermen and farmers check prices in different markets before selling produce, make it easier for people to find work, allow quick and easy transfers of funds and boost entrepreneurship. Phones can be shared by a village.
  - Fishermen in Mumbai have increased their income with pre-ordered quantity and quality delivery to their market.
  - Women in rural Bangladesh with loans from the Grameen Bank have created mobile PCOs adding to their families' income.

# Innovation: Reaching the masses

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C. K. Prahalad,

"Emerging markets will be wireless-centric, not PC-centric,"

India is on top of the curve with over 6 Million new Mobile Phone registrations per month – the highest growth rate in the world

# Innovation: Evolution of the Computing Market

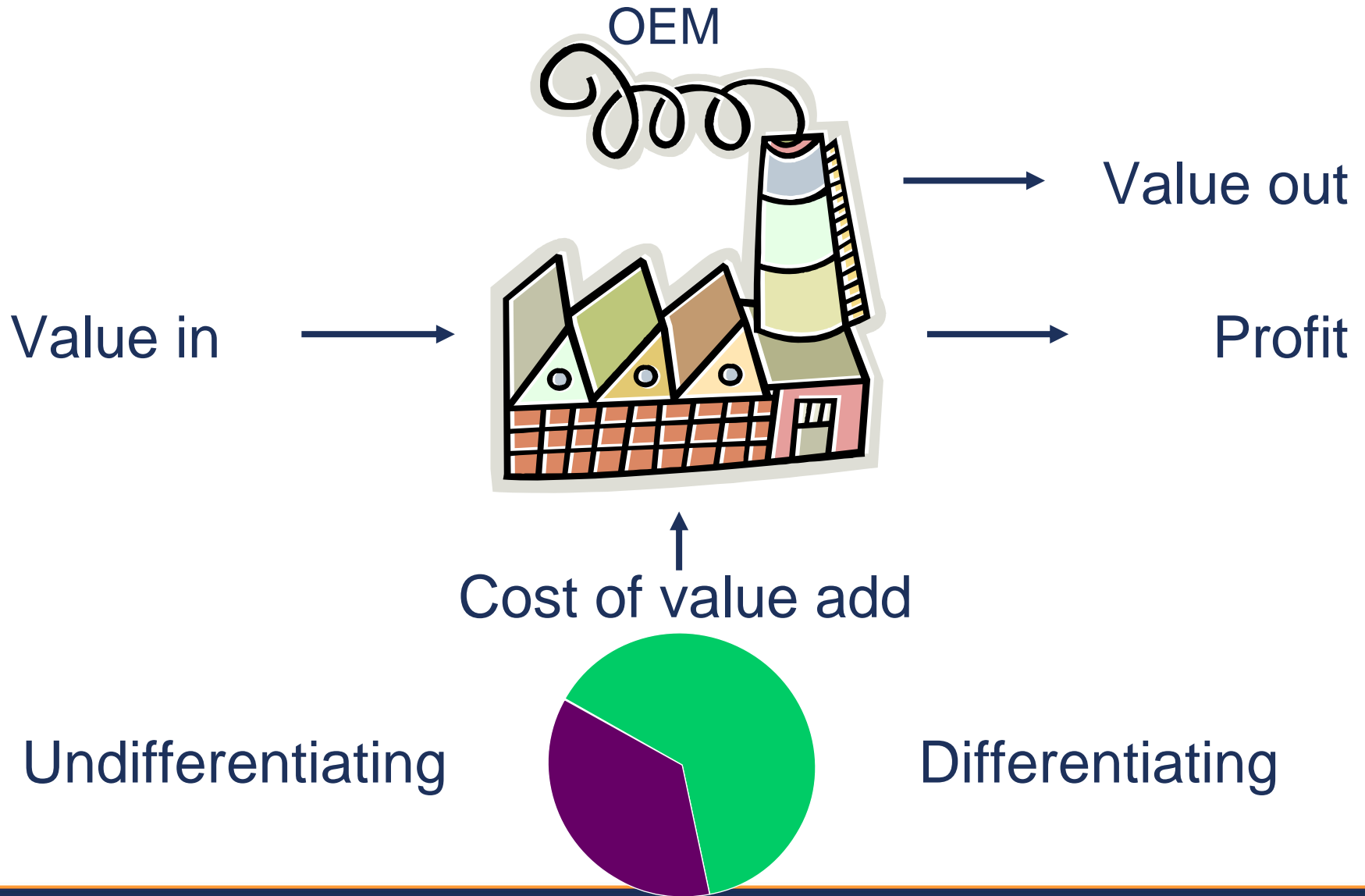
- Computing has evolved in parallel with the Semiconductor market over a similar but slightly longer period



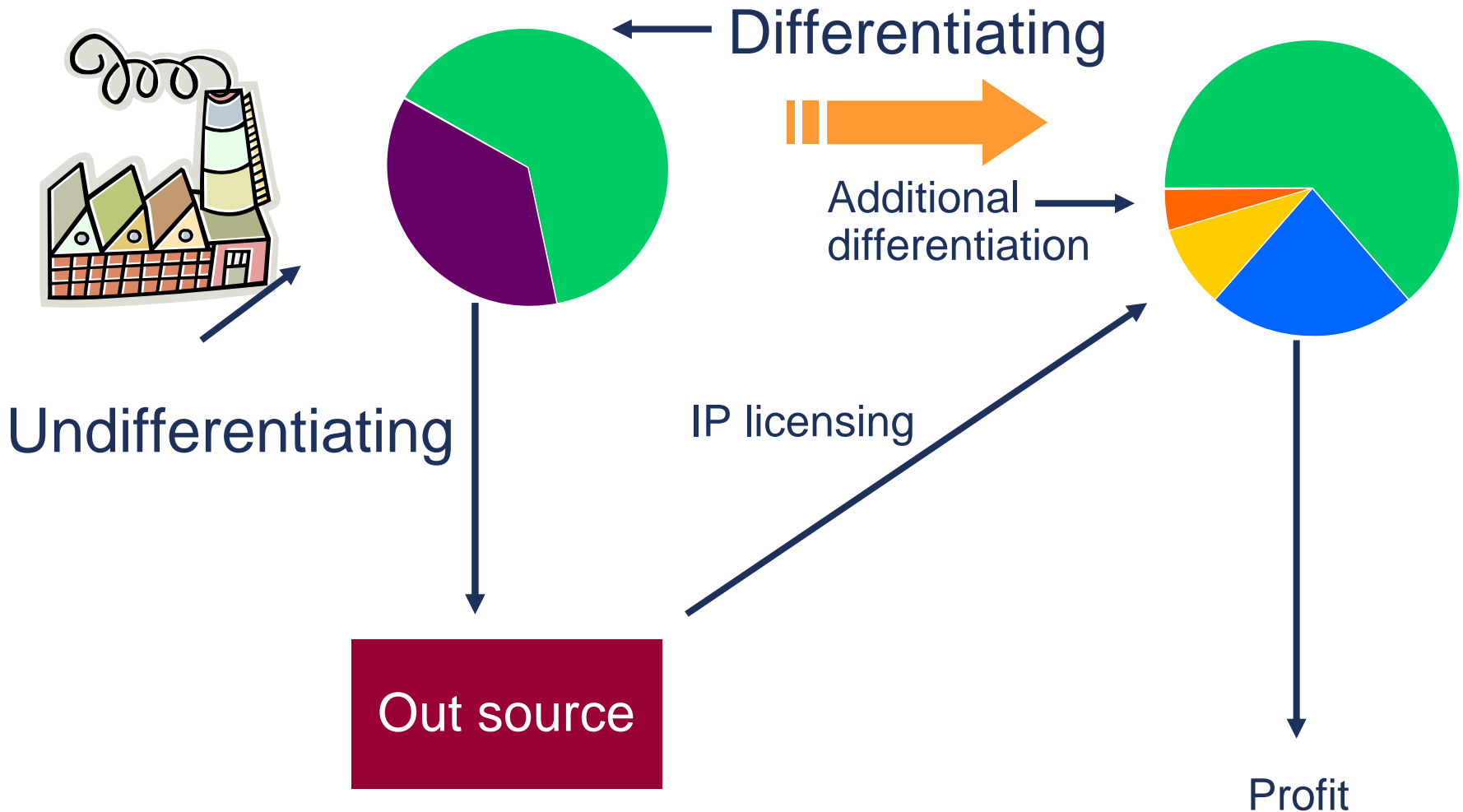
- Semiconductor technology is now enabling computing to become embedded into everyday products



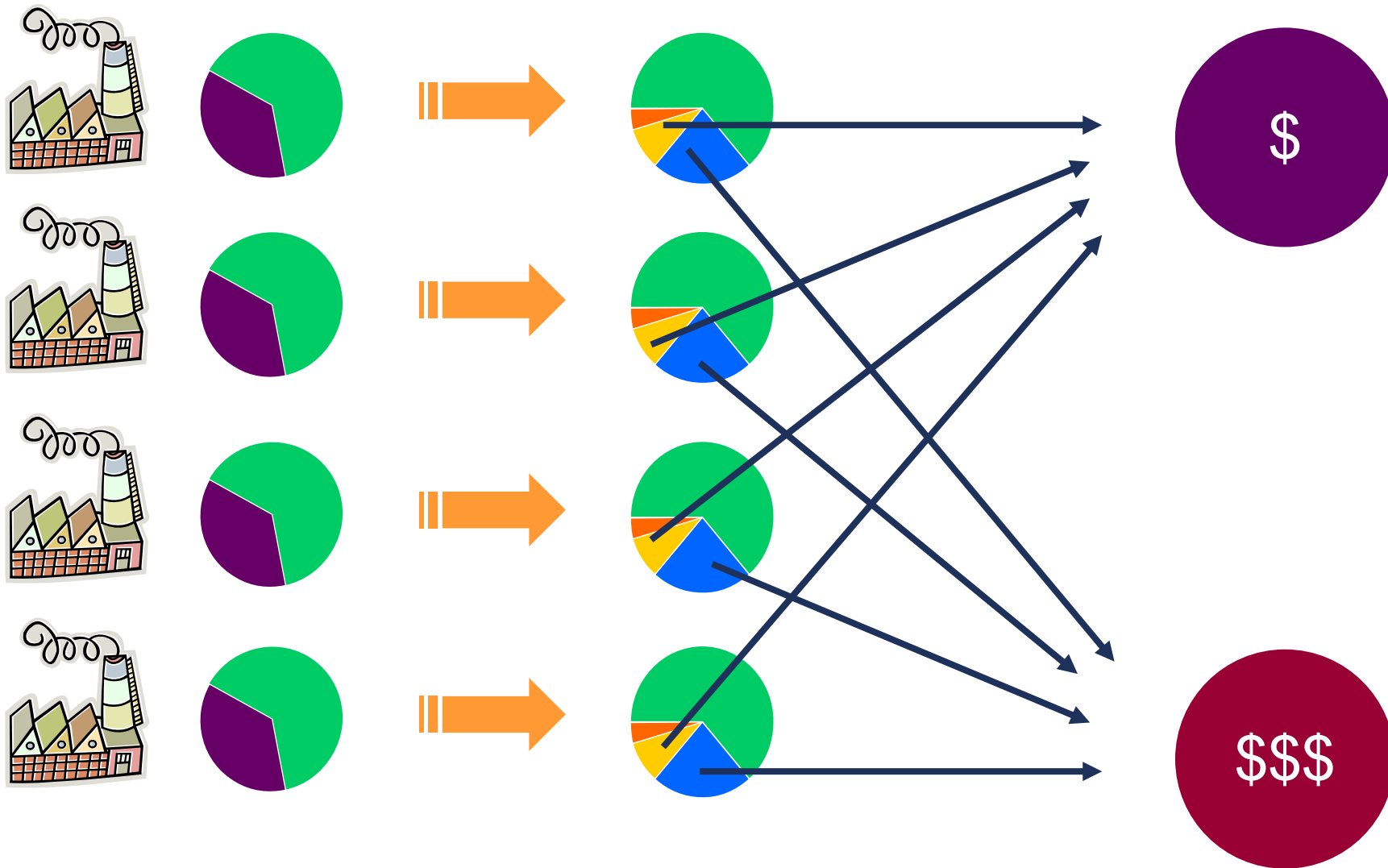
# Innovation: Structural cost



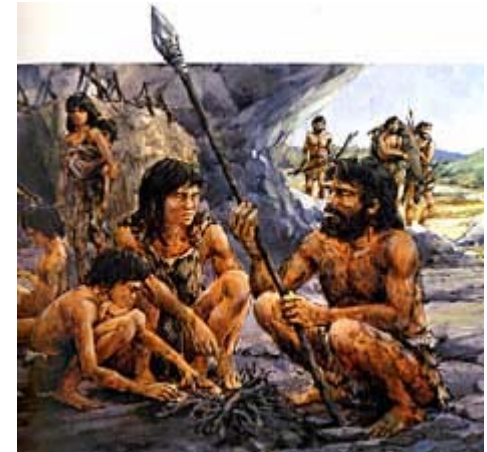
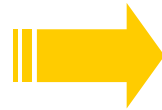
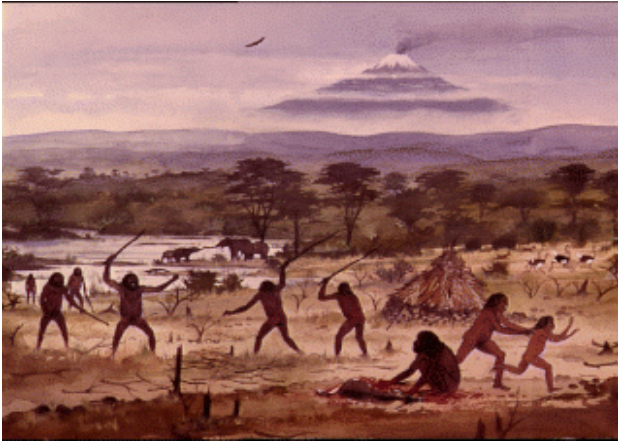
# Innovation: Reduction of Structural cost



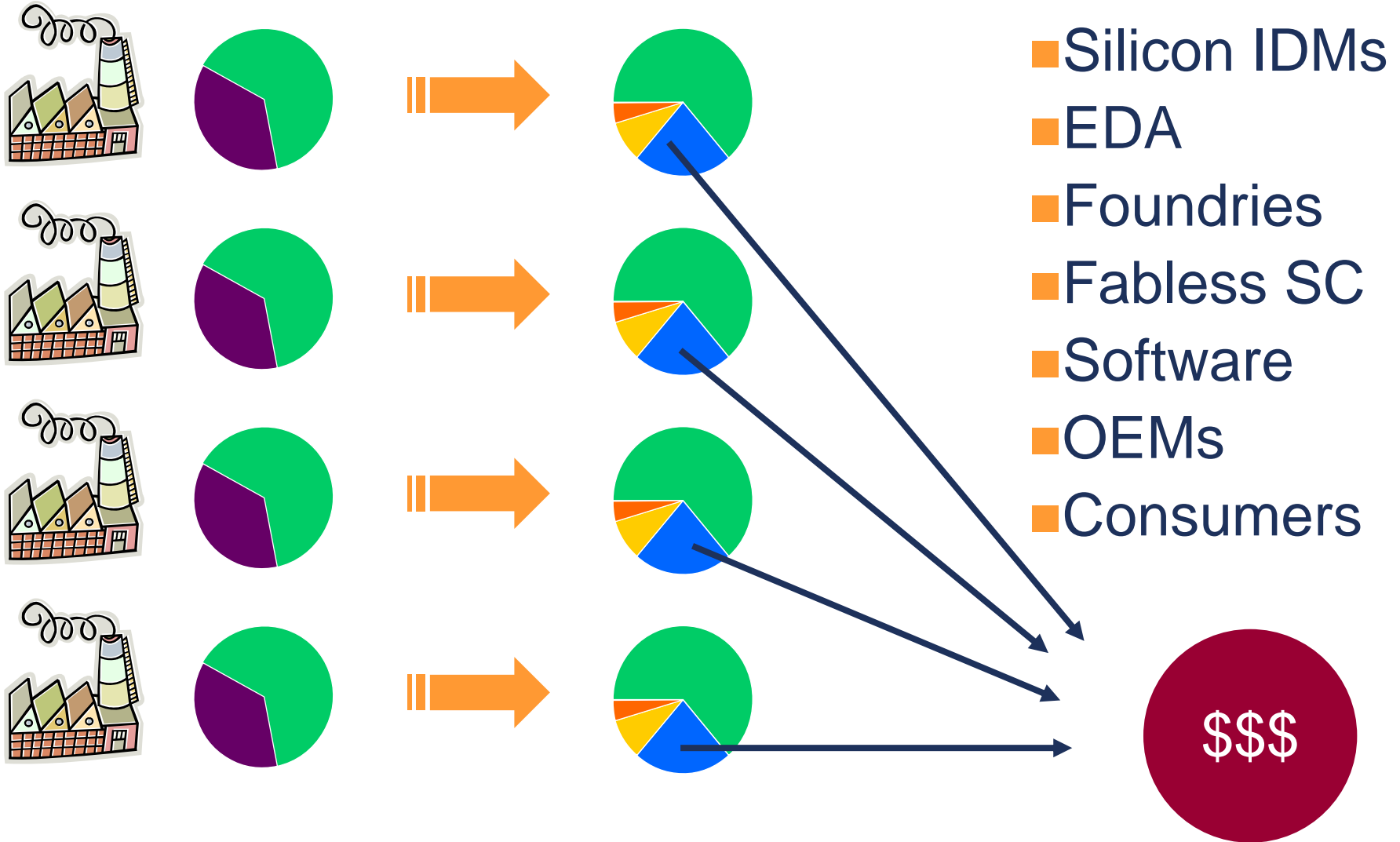
# Innovation: Economic gain across the industry



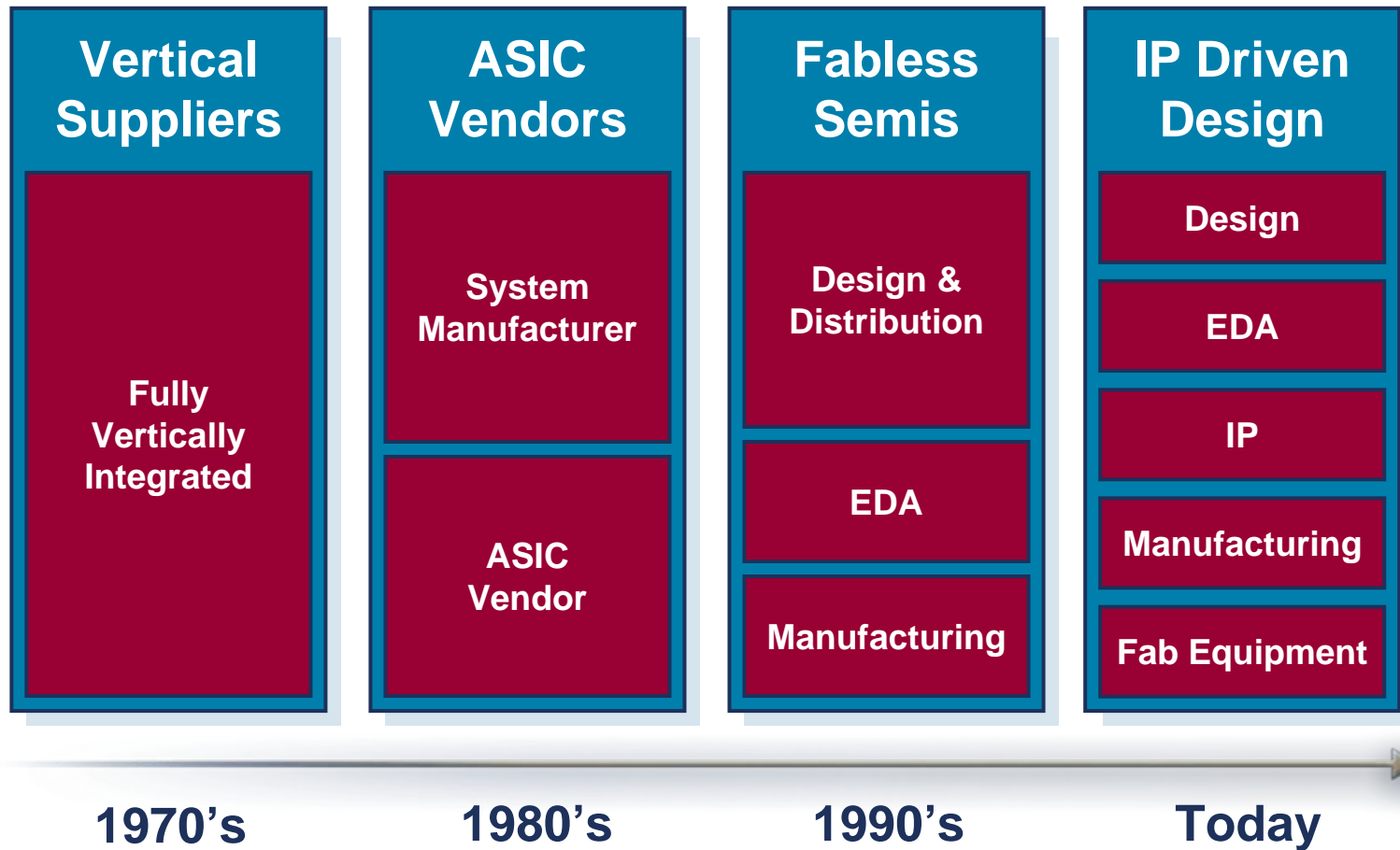
# Innovation: Economic gain through specialisation



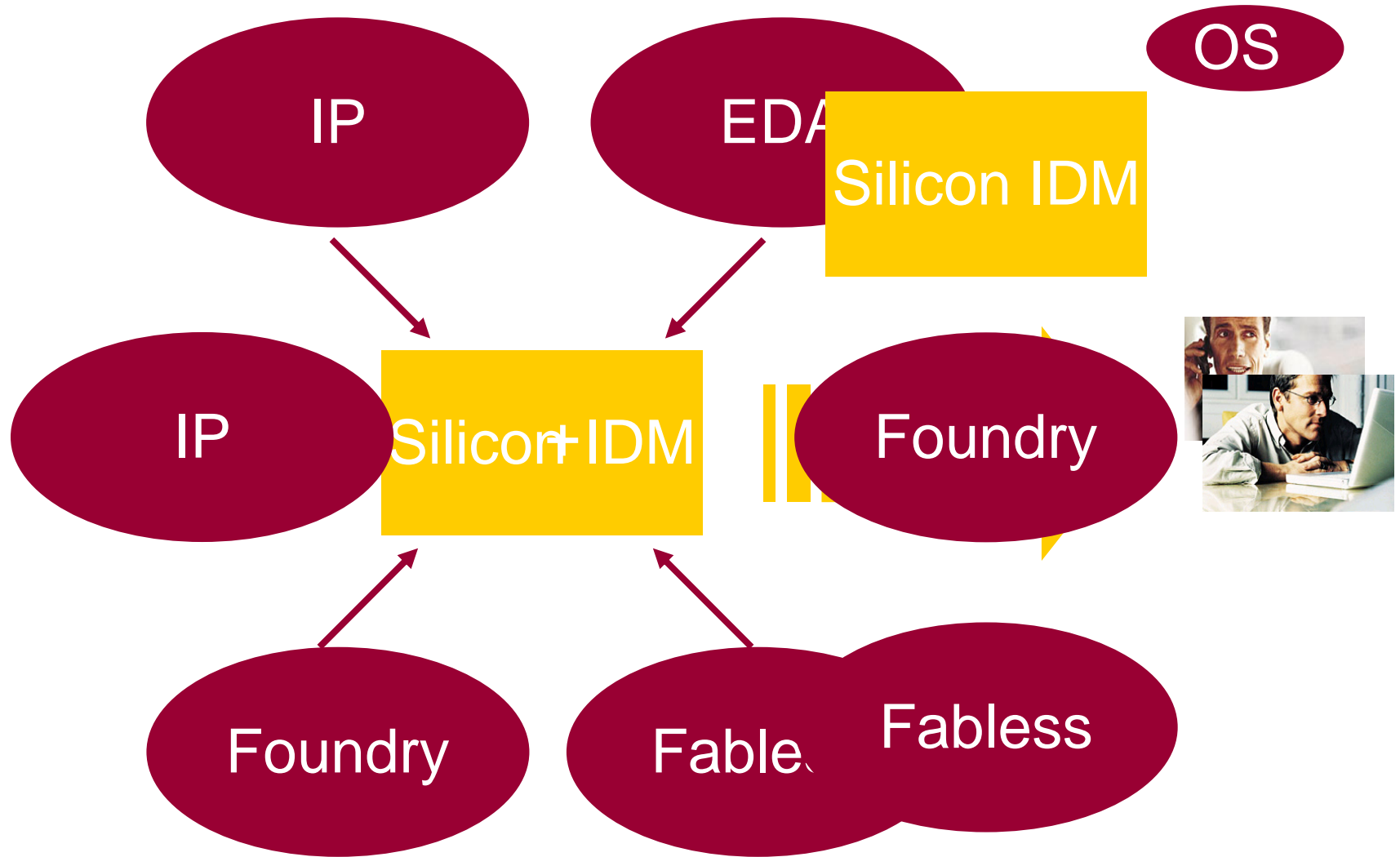
# Innovation: Economic gain across the industry



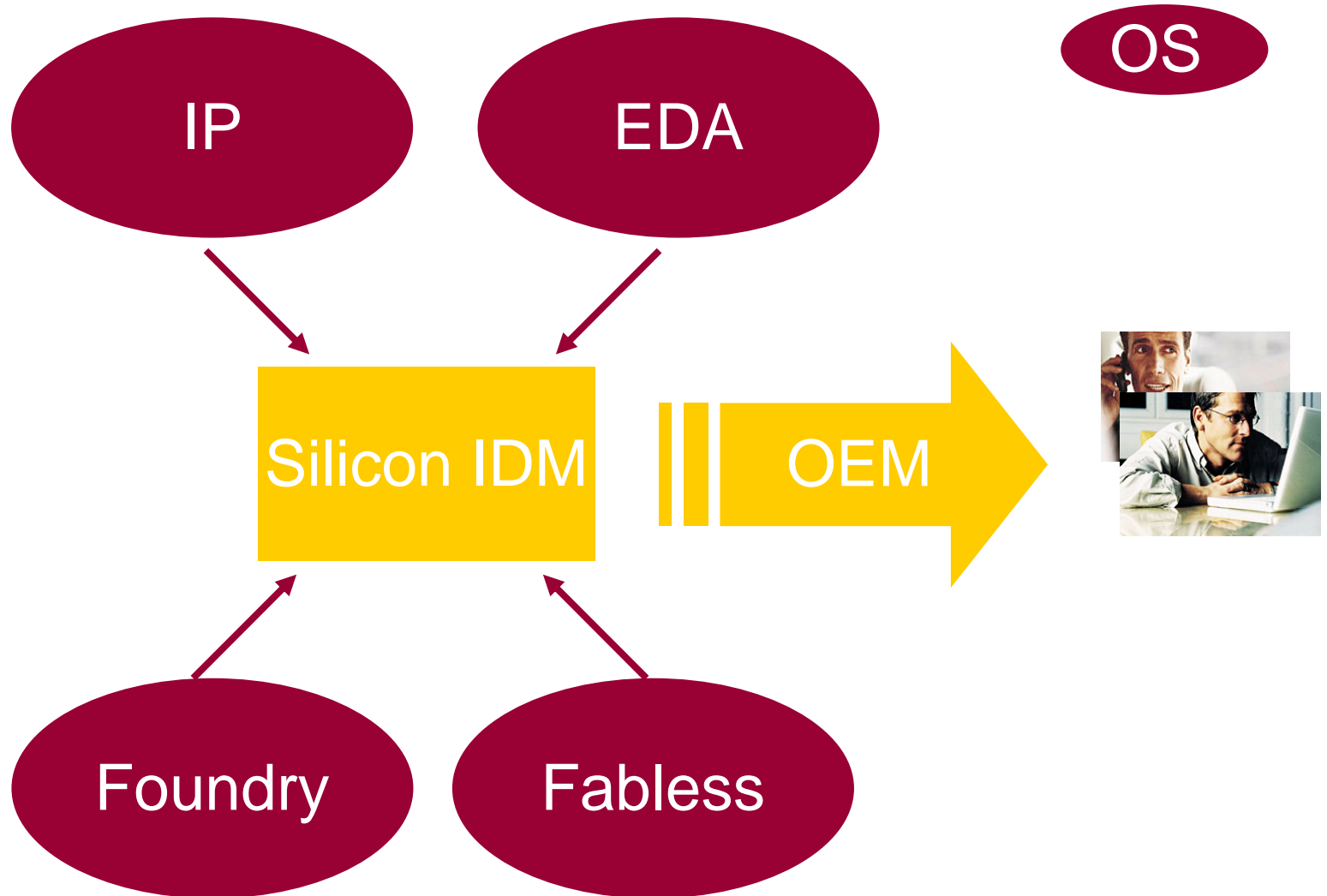
# Innovation: Semiconductor Disaggregation



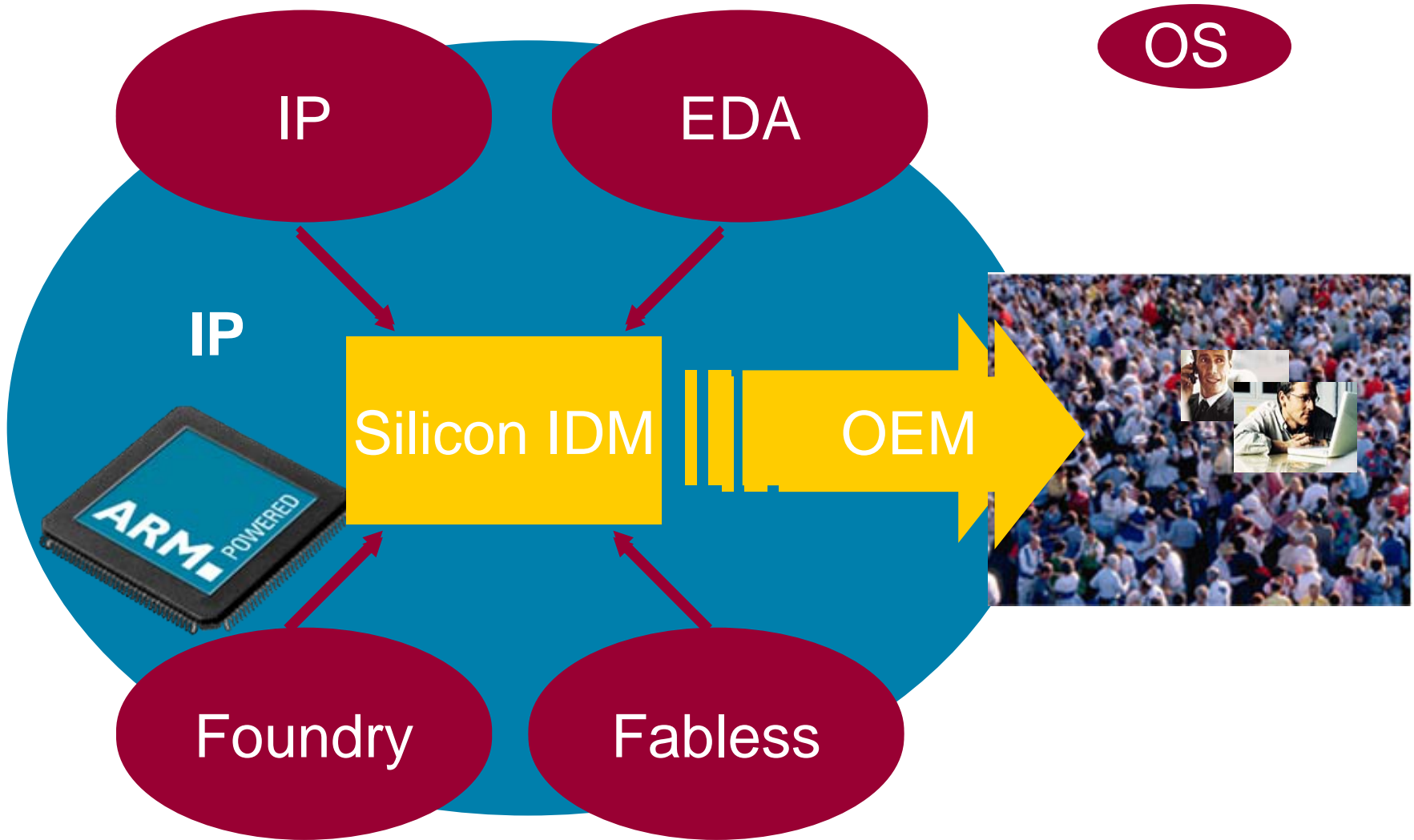
# Innovation: Industry model & new relationships



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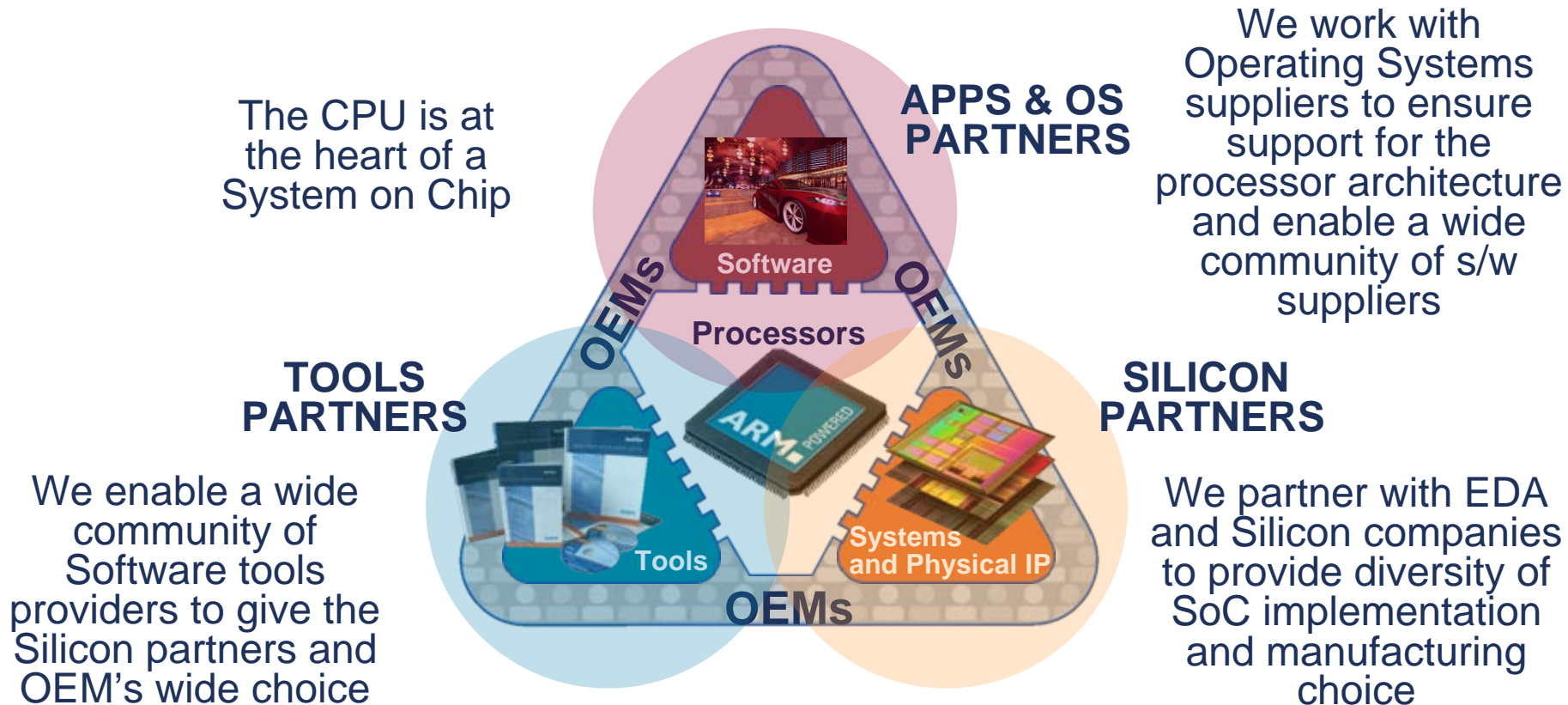


# Innovation: Replacing traditional boundaries

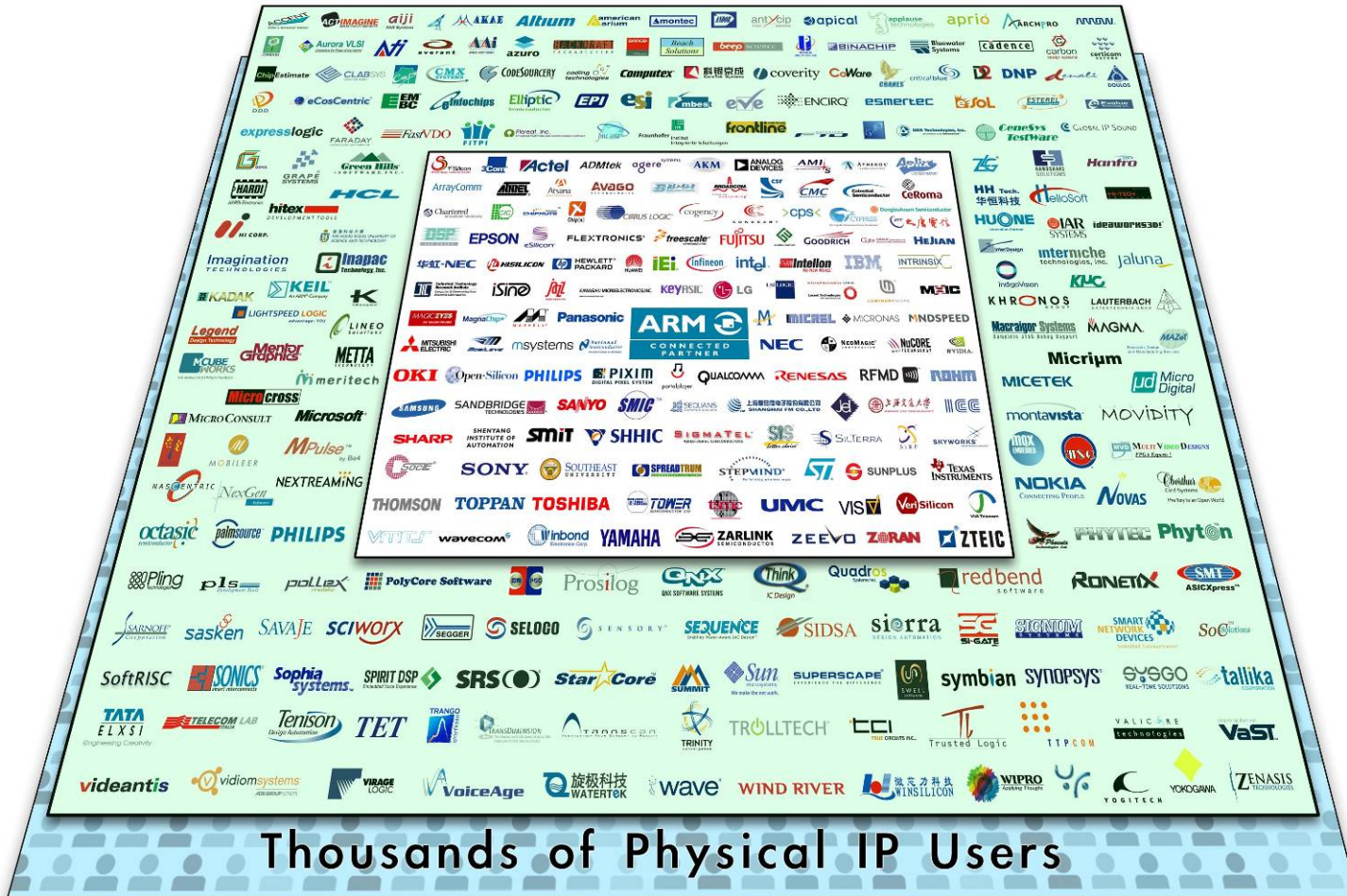


# Helping Innovate: The ARM Strategy

Our strategy is to create a partnership with our customers and broader community of third parties, to enable the creation of end products more efficiently through ARM than from any other source



# Business Built on Partnership



# Helping Innovate: Some ARM Based Products



Archos AV400  
PMP ARM9



JVC Digital  
Camcorder  
ARM7TDMI®



Alfa Romeo Brera & 149  
ARM9™ & ARM7™



Nintendo DS-Lite  
ARM9 & ARM7



Sharp IT-32X2  
LCD Television



Nokia High End Consumer  
Phones



LEGO Mindstorm NXT  
ARM7™ family-based MCU



Samsung Camcorder  
ARM9



Sony PEG-Vz90 Clie  
Personal Digital Assistant



Toshiba 52HM84  
52" DLP Television



Toshiba Gigabeat  
ARM1136J-S™



Samsung Blu-Ray DVD  
ARM926EJ-S™ + JTEK S/W

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Thank You