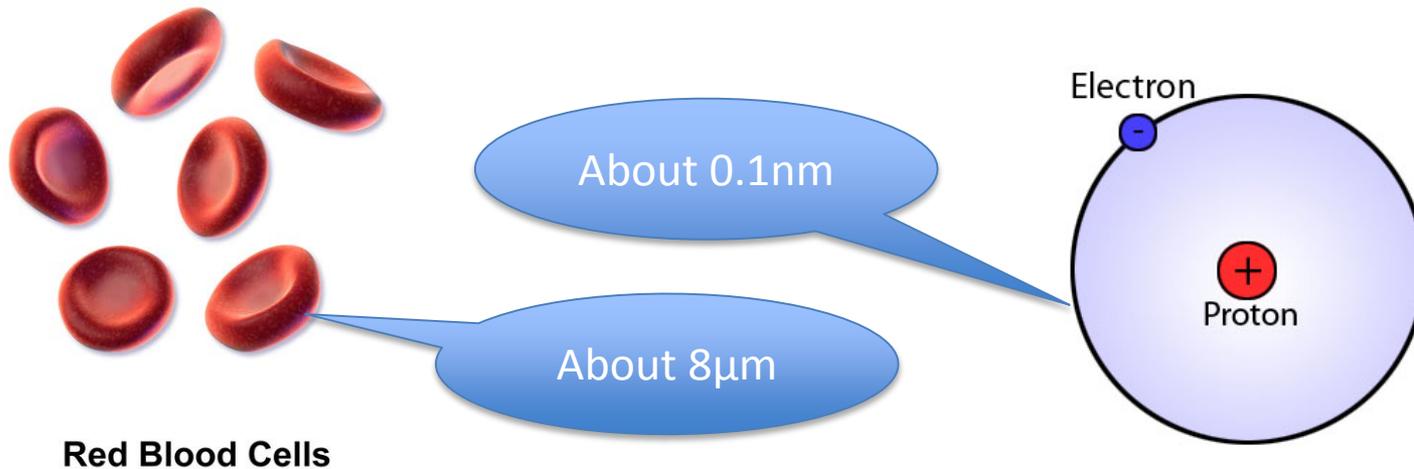




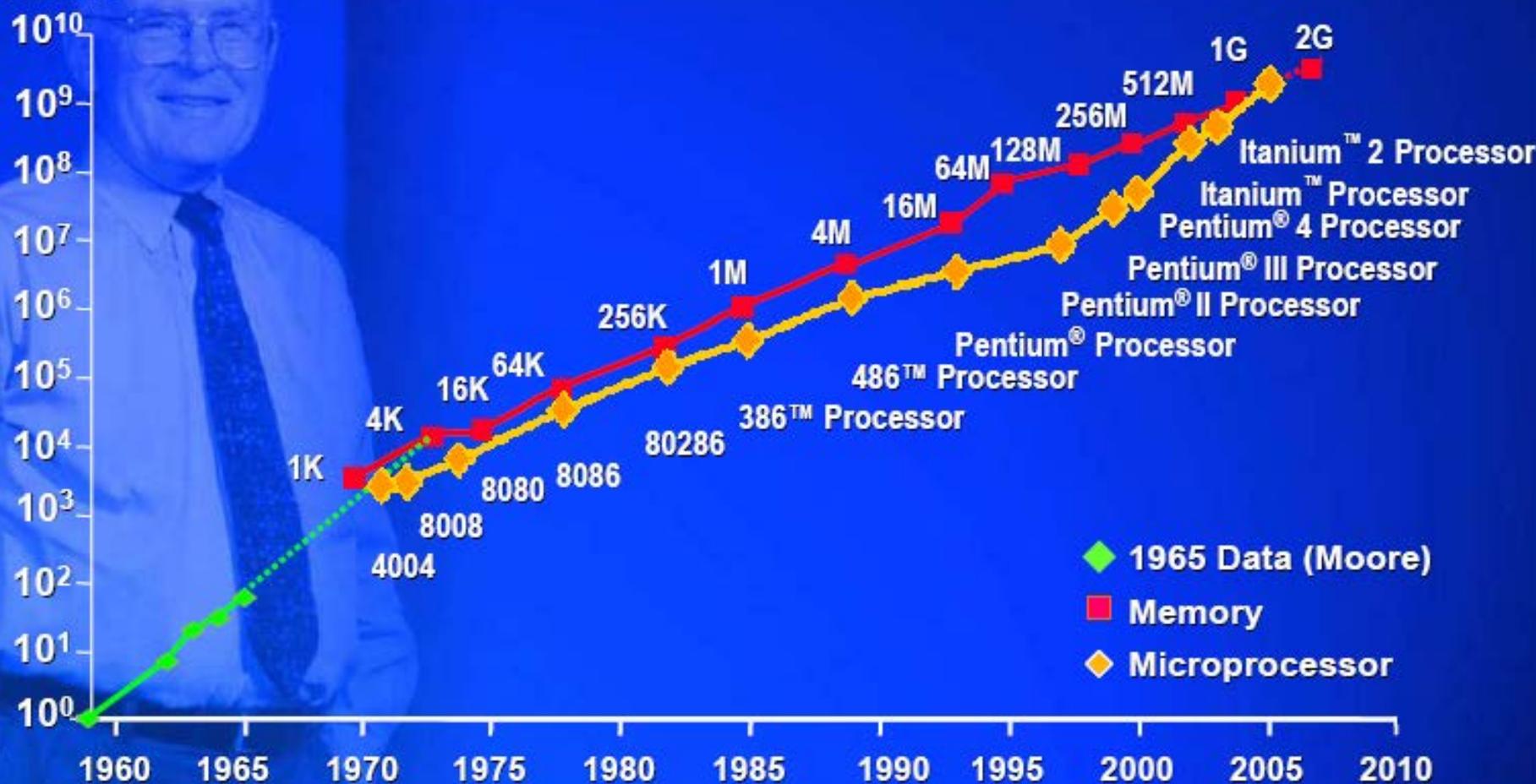
International Technology Roadmap for Semiconductors

10 μm – 1971	800 nm – 1989	90 nm – 2004	10 nm
3 μm – 1975	600 nm – 1994	65 nm – 2006	– est. 2015
1.5 μm – 1982	350 nm – 1995	45 nm – 2008	7 nm
1 μm – 1985	250 nm – 1997	32 nm – 2010	– est. 2017
	180 nm – 1999	22 nm – 2012	5 nm
	130 nm – 2002	14 nm – 2014	– est. 2019



Moore's Law - 2005

Transistors
Per Die



- ◆ 1965 Data (Moore)
- Memory
- ◇ Microprocessor

Standards

Standardization of interfaces makes interconnection of components possible



Hardware Interfaces – adapters, plugs and cables



What is the standard interface between
academia and industry?

The Head vs. The Hands



The CTE model does not:

promote transferable skills

generate a breadth of experience

The liberal arts model does not:

make students workforce ready

Some universities are better at interfacing with industry.

Some disciplines are better at interfacing with industry.

Some industries are better at specifying their needs.

How can we better standardize the interface between academia and industry to get students into the jobs they want?

1. Dialogue
2. Compromise