

Enterprise Architecture at Applied Materials

Open Group Brussels April 2004

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External Use

Agenda

- Introduction Applied Materials
- Corporate Structure and Culture
- IT Landscape
- Architecture Efforts in Time
- The Open Group and TOGAF
- Pieces of the Puzzle
- The Journey Continues
- Q&A

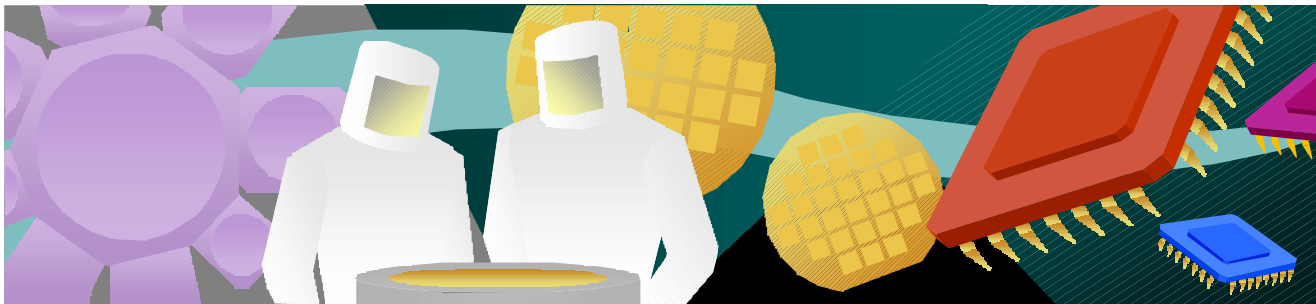
Corporate Overview

- Past Four Quarters New Orders
 - \$4,318 Million
- Past Four Quarters Revenue
 - \$4,477 Million
- Worldwide Employees
 - Approximately 12,000
- Worldwide Locations
 - 14 Countries
 - <65 Sales and/or Service Locations
 - Manufacturing in North America, Europe and Israel
 - Development in North America, Asia, Europe and Israel
- Gross RD&E Investment (5 years)*
 - \$5,020 Million

* Note: RD&E data prior to FY '99 does not include Etec Systems

Business Mission

- Applied Materials' mission is to be the leading supplier of semiconductor fabrication solutions worldwide – through innovation and enhancement of customer productivity with systems and service solutions



Top 10 Worldwide Semiconductor Equipment Manufacturers

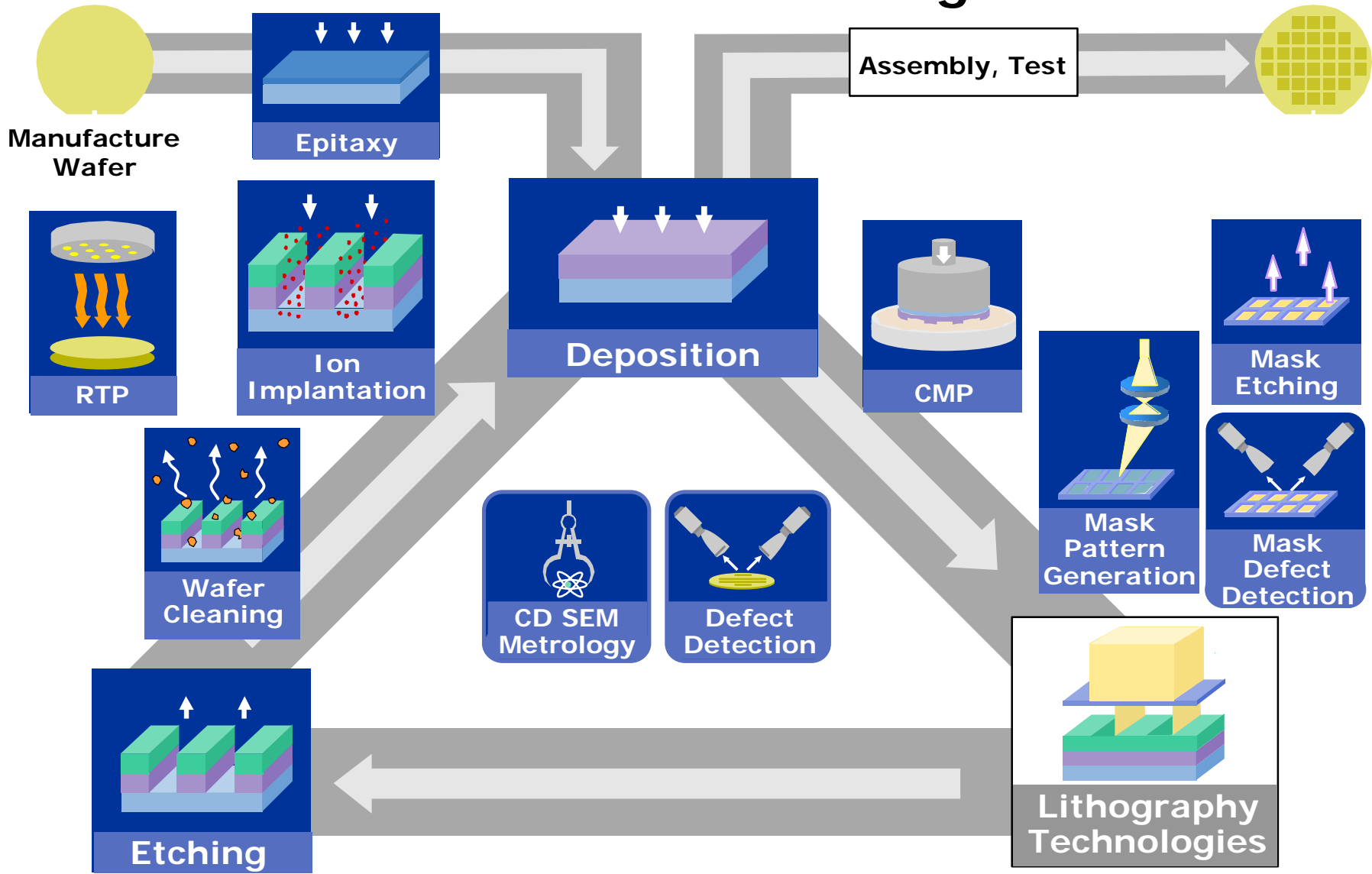
2002 Rank	CY2002 Sales (\$M) *	Company (Sorted by 2002 Revenues)
1	5,080.2	Applied Materials
2	2,646.1	Tokyo Electron Ltd.
3	1,875.1	ASML **
4	1,419.4	KLA-Tencor
5	1,091.2	Nikon Corporation
6	847.8	Canon Inc.
7	837.5	Novellus Systems, Inc.
8	736.9	Dainippon Screen Mfg. Co.
9	726.5	Lam Research Corporation
10	631.3	Hitachi High-Technologies Corp.

* Includes service and spares

** ASML 12% revenue growth due to its market share gains in 193nm tools and its higher revenue recognitions in CY2002 from prior year shipments

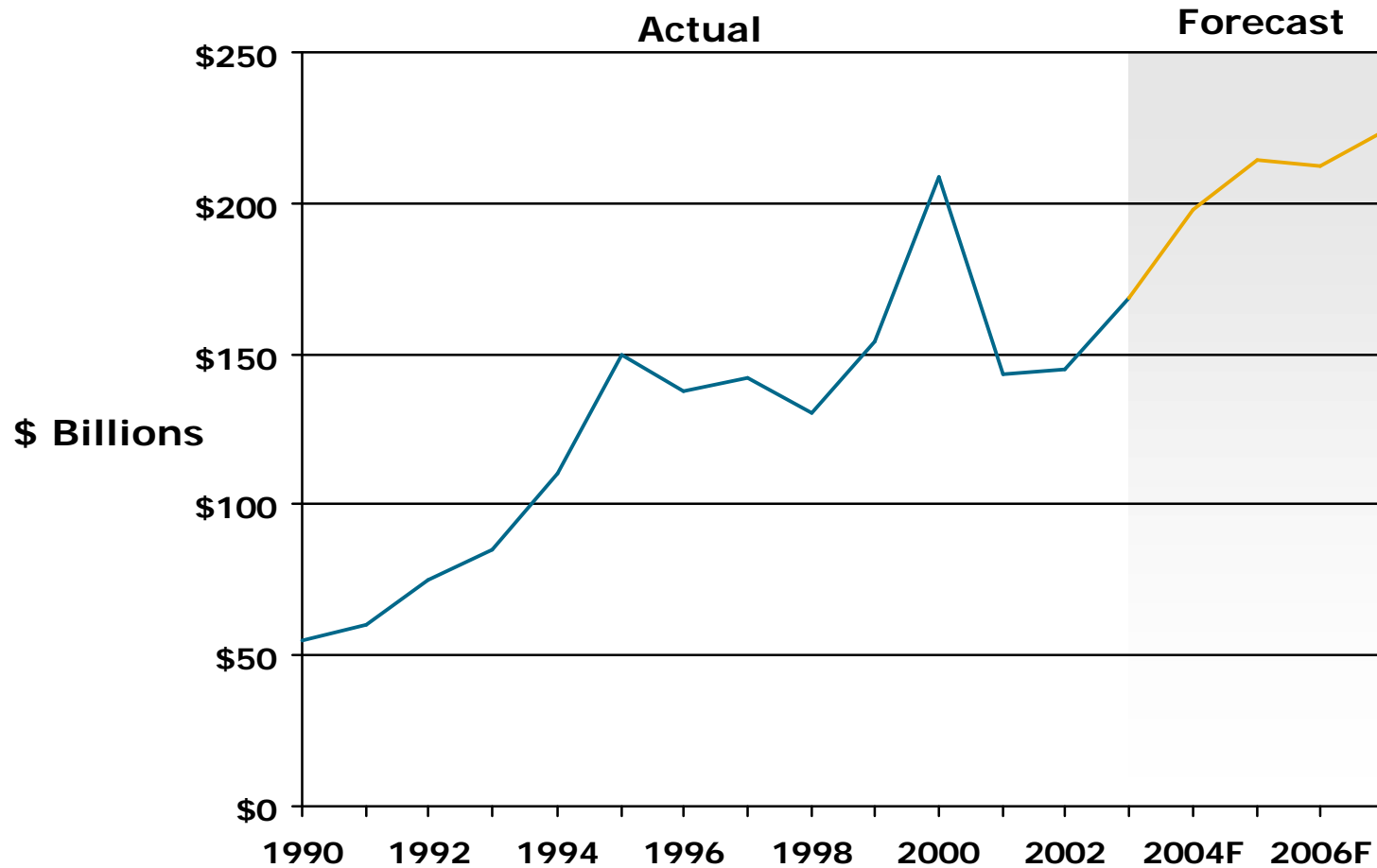
Source: VLSI Research Inc. 2/03

Semiconductor Wafer Processing



Worldwide Semiconductor Production

History and Forecast



Sources: Applied Materials, WSTS

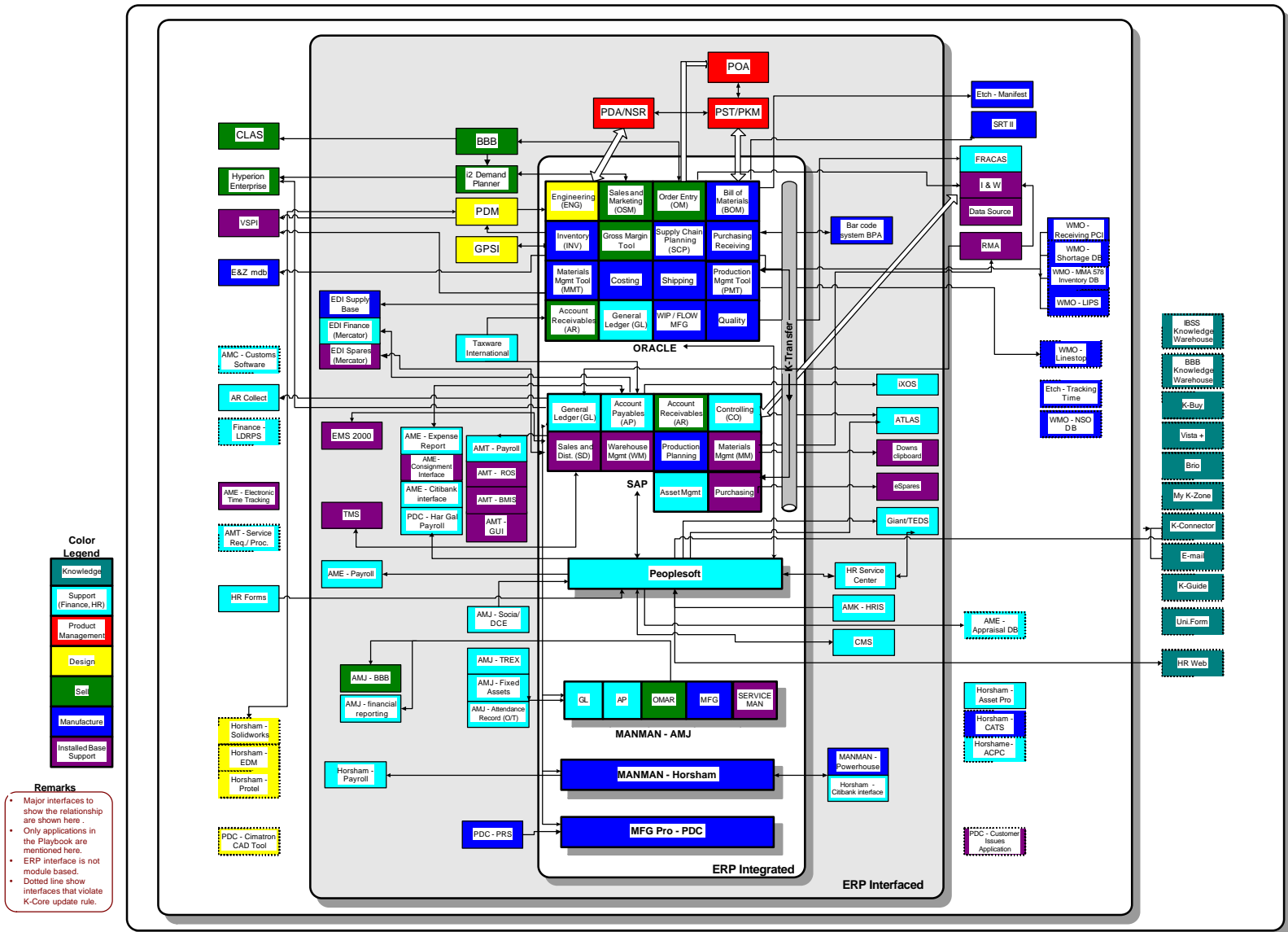
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Corporate Structure and Culture

- Multiple Product Business Groups and Support Functions
- Each group has its own IT organization, functionally tied into Corporate IT group
- Semiconductor technology driven
- Historically few constraints on IT direction
- Moving into more disciplined, rules based approach

12000 workstations
2000 servers

IT Landscape



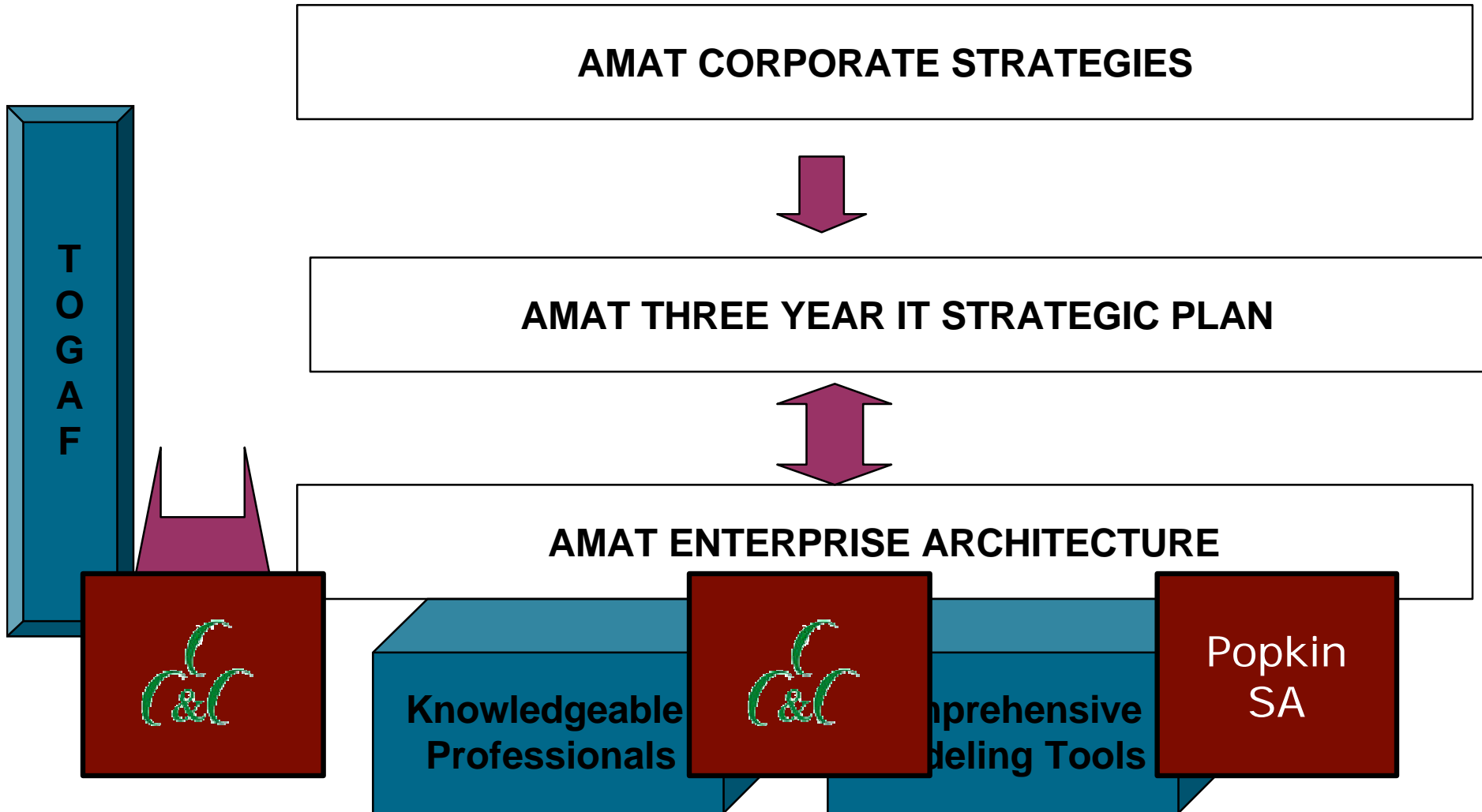
Architecture Efforts in Time

- Around year 1999 architecture group was created
- As-is architecture documented and published on website: the Playbook
- In year 2000 started adding processes around architecture through creation of Architecture Review Board (ARB). Later expanded to eArch
- Projects put under scrutiny
- Still hard to argue against project if business case is solid

The Open Group and TOGAF

- Desire to further professionalize and solidify architecture processes
 - control over IT environment
 - planning future direction
 - cost reduction
 - reduce complexity
- Business case for architecture
- Current state architecture needs to be re-captured and controlled – gate keeping
- TOGAF enables us to hit the ground running through framework and methodology
 - not the ultimate solution
 - fine-tuning needed
- Metrics

Pieces of the Puzzle



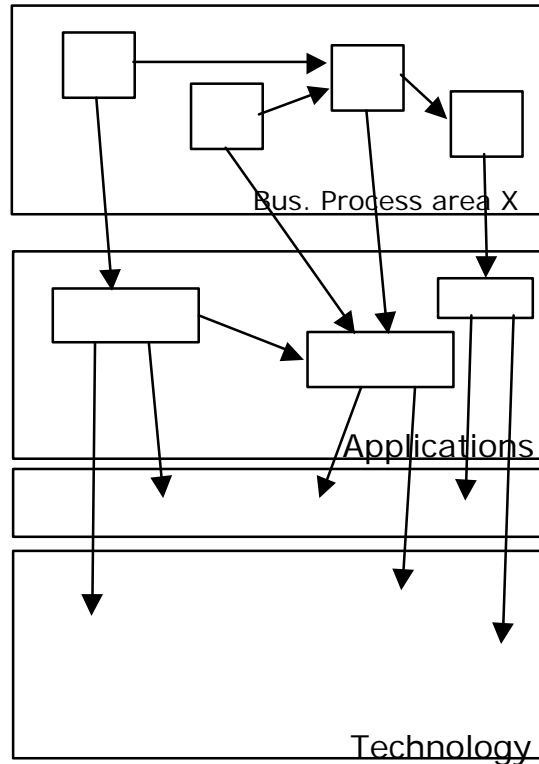
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The Journey Continues

- Redefining governance structure
- Recapturing current state architecture
 - more focus on business side
 - shooting for end of June
- Updating architecture processes
- Defining principles, rules and guidelines
- Target architecture around August

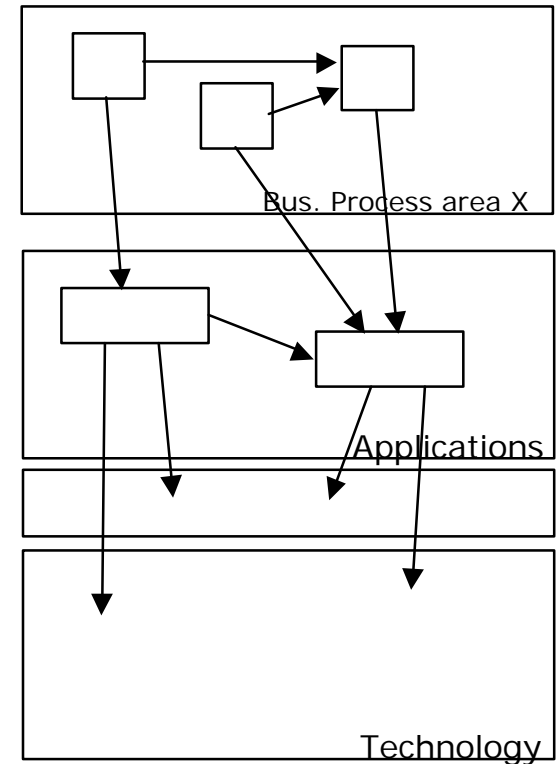
Architecture Layer	Basic Framework	Principles	Rules	Guidelines	Models	Architecture Building Blocks	Solution Building Blocks	Standards
BUSINESS	Yellow	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue
APPLICATION	Yellow	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue
DATA	Yellow	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	?, White	?, White	?, White	?, White
TECHNOLOGY	Yellow	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue	Yellow, Orange, Blue
COMPLIANCE FRAMEWORK	Yellow	<p>AMAT Architecture Framework</p> <p> V 0 Apr. 30 External Use V1 TBD V2 TBD </p>						

Architecture in Time



Architecture State 1

Projects



Architecture State n

Q&A