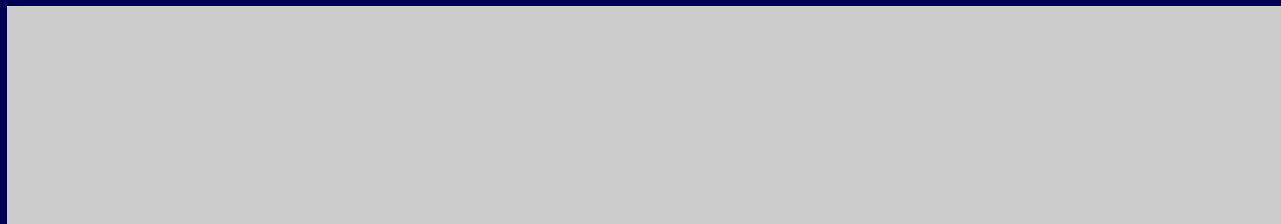




20 May 2009

NPD Portfolio Management for a Global Manufacturer

PLM BEST PRACTICE CONFERENCE 2009
SEOUL KOREA



PRTM

*Management
Consultants*

Where Innovation Operates

Introducing PRTM

PRTM is Premier Operational Strategy Consulting Firm Specializing in Operational Innovation

- 30년 이상의 운영전략, 혁신 및 실행
(Operational Strategy, Innovation and Execution)
 - 제품개발 혁신: PACE® (Product And Cycle-time Excellence)
 - 공급망 혁신: SCOR® (Supply Chain Operations Reference)
- 1,200여 고객사를 대상으로 6,000회 이상의 프로젝트 수행
- 90% 고객이 프로젝트 수행 재 요청
- Consulting Magazine 및 Kennedy Research 에서 “다시 일하고 싶은 좋은 컨설팅 회사” 선정
- 전세계 총 600명 이상의 컨설턴트 보유 및 18개 사무소 운영
- Samsung SDS와 전략적 제휴 체결 (2007)
- 주요 컨설팅 전문업종:
 - 항공우주, 방위산업
 - 화학, 장치 산업
 - Consumer Packaged Goods (소비재)
 - 전자장비, 컴퓨터
 - 에너지
 - 식품, 음료
 - 정부 / 공공 부문
 - 생명과학, 의료보건
 - 반도체
 - 자본설비 및 중공업
 - 소프트웨어 & 인터넷
 - 통신 서비스

What is Portfolio Management?

Portfolio Management supports management investment decisions

- Setting, communicating, and aligning project priorities with a company's strategy
- Choosing the level of investment in projects relative to others
- Making strategic resource allocations

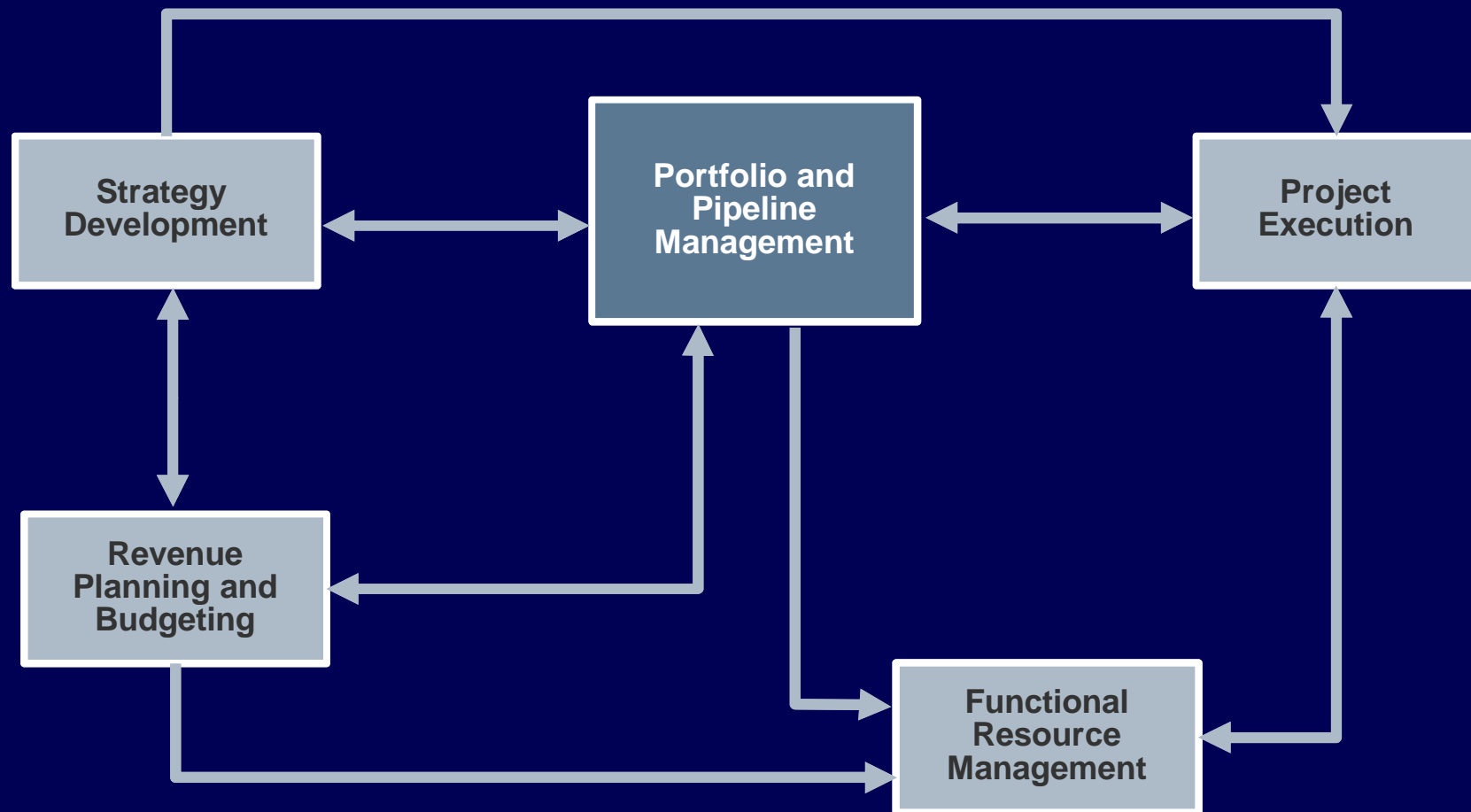
Portfolio Management's scope includes all types of projects competing more or less for the same scarce resources

- New product development, IT, capital deployment, technology development, customer care, infrastructure, six sigma, acquisition integration, business process improvements
- Includes ongoing, potential, and planned projects

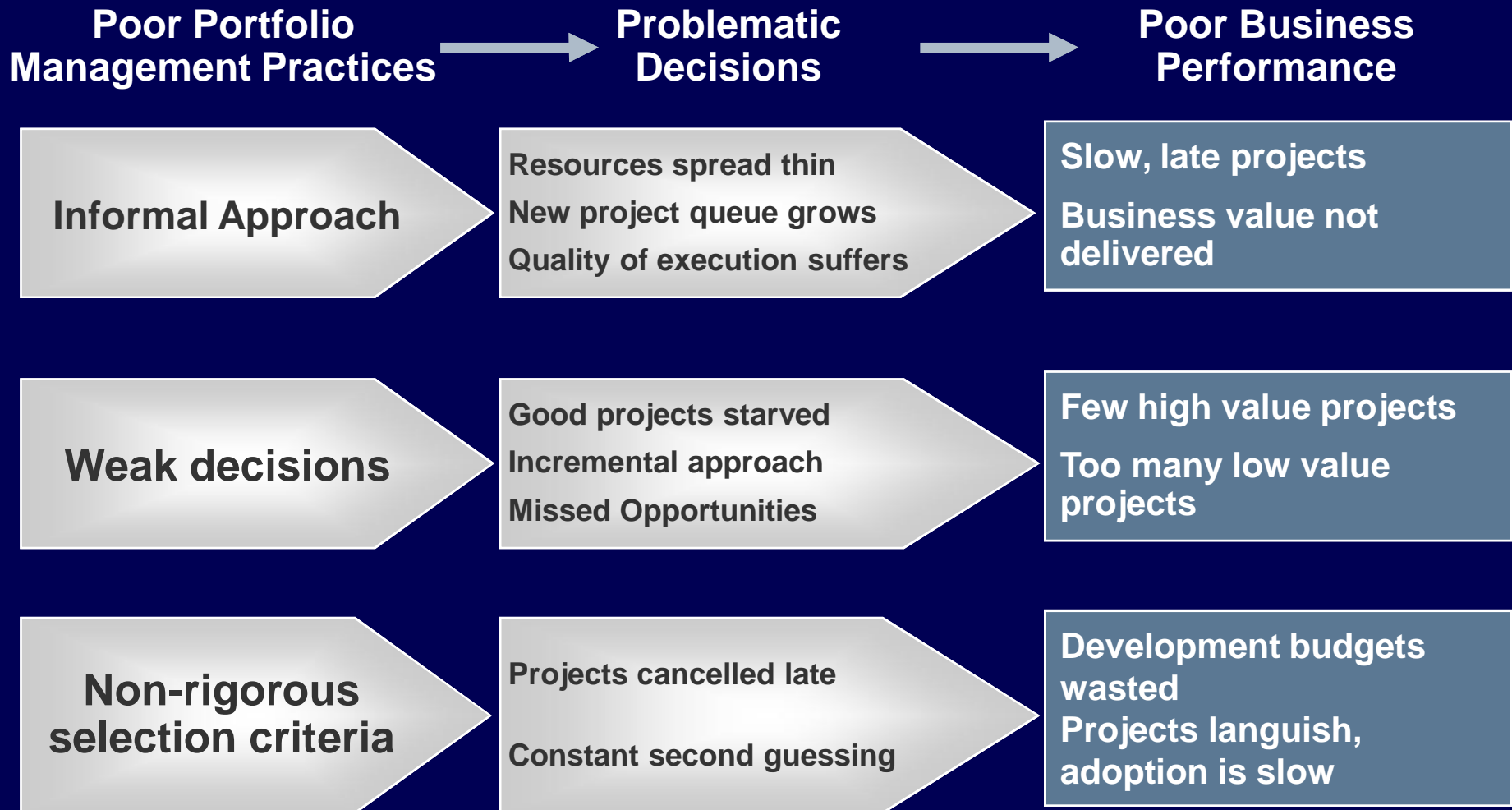
What is Portfolio Management?

continued

Portfolio Management is at the heart of innovation management



Why Companies Should Care



Reference: Adapted from *Portfolio Management for New Products*, Robert Cooper, Perseus Books, 1998

Case Study Overview: SmartCo

Two billion dollar global supplier and solutions provider with a strong brand equity; markets thousands of products in 60+ countries

Possibility:
profitable growth

Opportunities

Opportunities for high-value promotions and tie-ins
Innovative solutions to drive increased premiums
Grow market share leadership
Leverage brand to demand premiums
Maintain/extend dominance of channels

Threats

Complexity of products increasing
Increasing commoditization pressures
The Wal-Mart effect
Demand for greater product variety/SKU proliferation
Poor historical track record for project execution

Reality: revenues and margins weakening

Smartco

Approach:

- Implemented PACE® project and portfolio excellence with PRTM
- Deployed IT-enabled portfolio and process management with Sopheon Accolade

Results:

- Dramatic reduction in time to market
- Improved project execution capability
- Reduced administrative burden
- Increased profitability

SmartCo Had Hit a Roadblock

SmartCo Lacked Consistent, Strong Project Management Skills

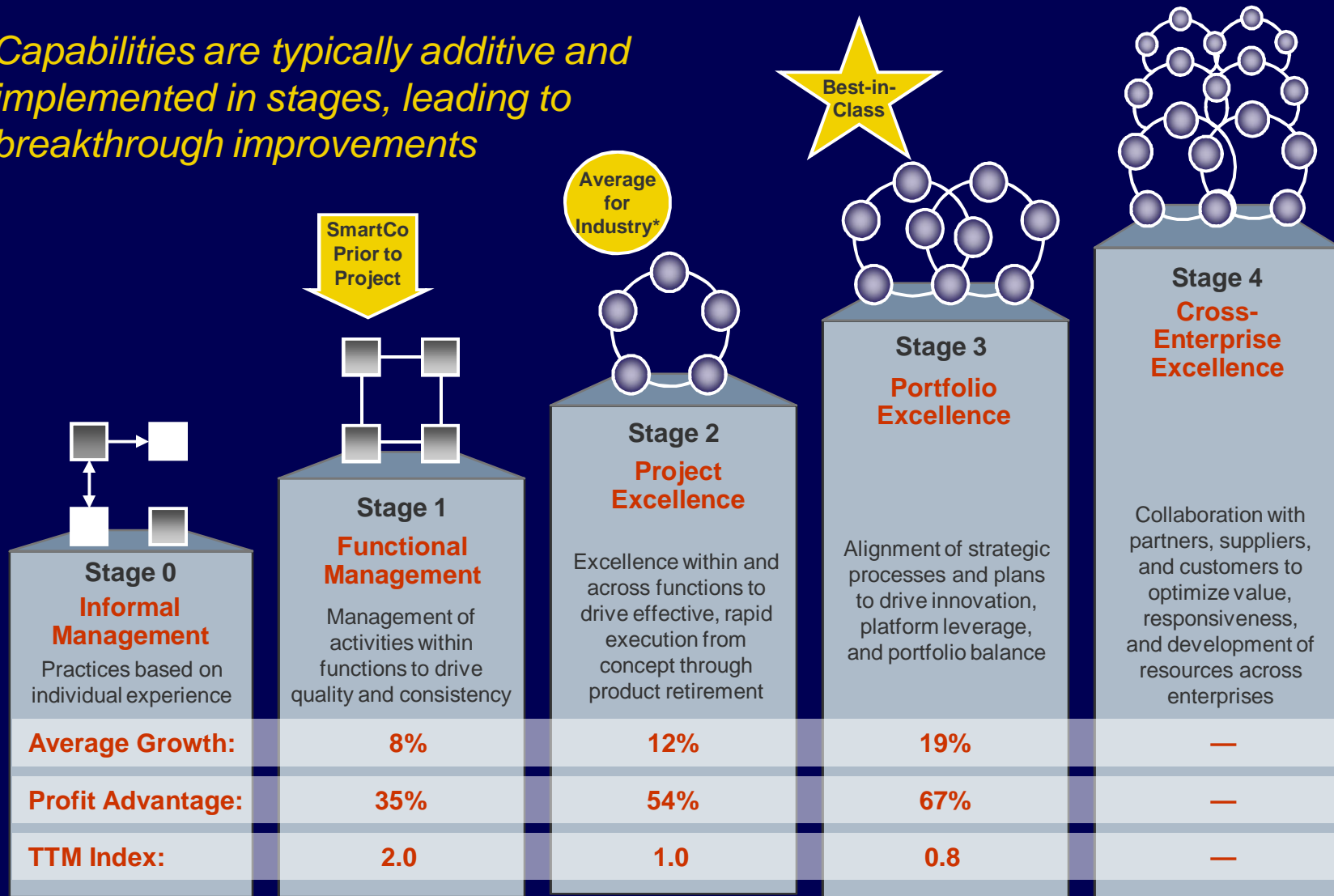
- Project management not integrated; not able to emphasize cross-functional interdependencies
- Project accountability not clearly defined
- Frequent specification/scope changes
- No effective processes or systems to estimate project schedules or resource requirements
- Most project teams unable to develop or manage realistic work plans
- No consistency of process across multiple divisions and locations

The Corporate Portfolio Could Not Be Harmonized Across Opportunities

- Difficult to obtain a realistic forecast of resources and a corporate roll-up of resource supply/demand
- Resource allocation sub-optimized
- Broad portfolio and resource availability not integrated into stage reviews
- Unable to make tradeoff decisions across new product development opportunities
- Difficult to obtain corporate NPD views
- Manual tools not in real time and insufficient to support decision making

Goal: Move SmartCo to Portfolio Excellence

Capabilities are typically additive and implemented in stages, leading to breakthrough improvements



SmartCo's Processes Provided a Skeleton

Benefits of the Existing Staged Development Process

- Brought structure to a situation that was nearly in chaos
- Introduced common terminology to an organization that was not very process mature
- Outlined expectations for a new product as it moved through the development cycle

Limitations of Generic Staged Development Process

- Difficult to coordinate cross-functional, cross-group work
- No credible way to test the reasonability of project schedules
- No management across projects
- Little emphasis on critical path project planning and management
- Did not always provide adequate info for effective decision making
- Decision processes not well defined
- Resourcing priorities unclear

Existing Processes Could Not Enable Best-in-Class NPD Performance

Improvements Required to Attain Goal

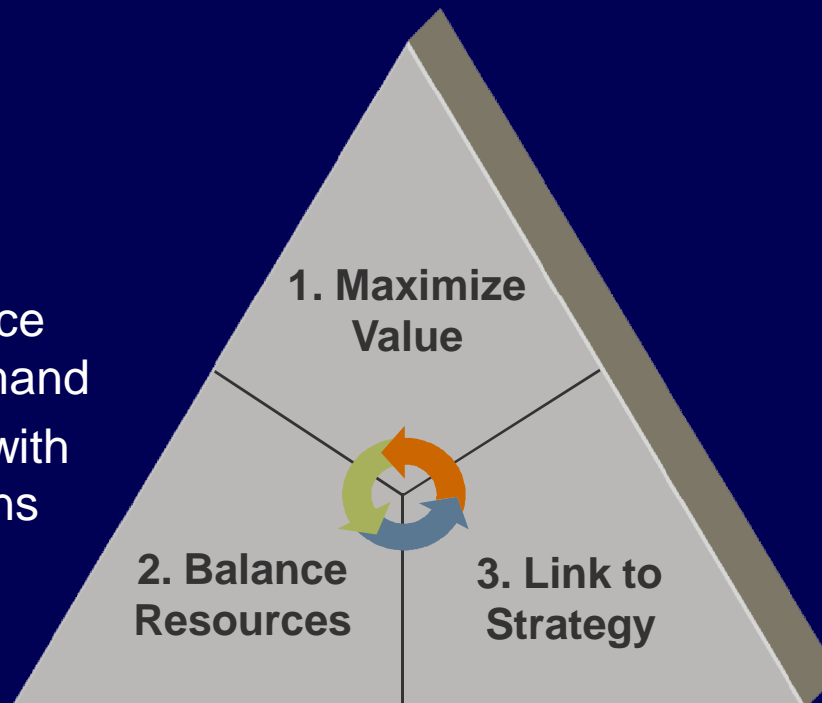
Putting “Meat on the Skeleton”...

- Optimized coordination among functions and teams by including well-defined roles and responsibilities
- Designed tools, templates, and processes for cross-project and cross-divisional consistency
- Developed planning standards based on project complexity and major blocks of work
- Integrated critical path into standard work plans
- Emphasized high-quality information availability for evaluation and tradeoff analysis
- Structured the front-end discovery process to increase the innovation pipeline flow

Three Primary Objectives

- Maximize corporate NPD return
- Emphasize value measures other than financial (e.g., urgency, complexity)

- Balance resource supply and demand
- Align priorities with staffing decisions



- Create a portfolio of programs that helps achieve corporate objectives
- Ensure that development of priorities aligns with business strategy

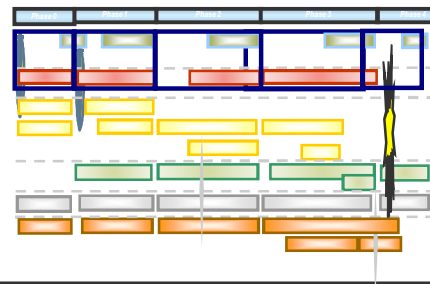
Goal: Create Corporate Portfolio Excellence

Clear roadmap for cross-functionally managing new product development efforts

Credible estimates to forecast project cycle-times and the multi-functional resources required for individual projects

Optimized standard project management template applicable across all project types,

Structured Development Process

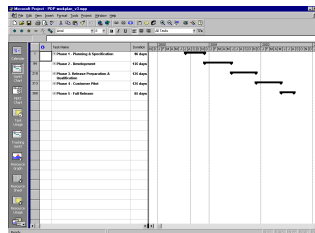


Cycle-Time and Resource Standards

Project Type / Complexity	Average Best-in-Class Cycle-time* (months)	Typical R&D Resources (FTE's)
Low (<3.5)	4.5	0.5-5
Medium (>3.5, <6.0)	12.5	4-21
High (>6.0)	25.0	15-90

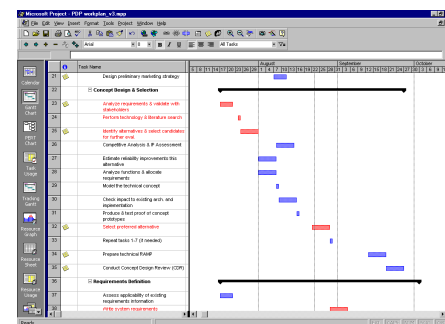
	Phase 0	Phase 1	Phase 2	Phase 3	Phase 4
Low	0.7	0.6	1.8	1.1	0.4
Medium	1.9	1.6	4.9	3.0	1.1
High	3.8	3.3	9.8	6.0	2.3

Generic Project Management Template



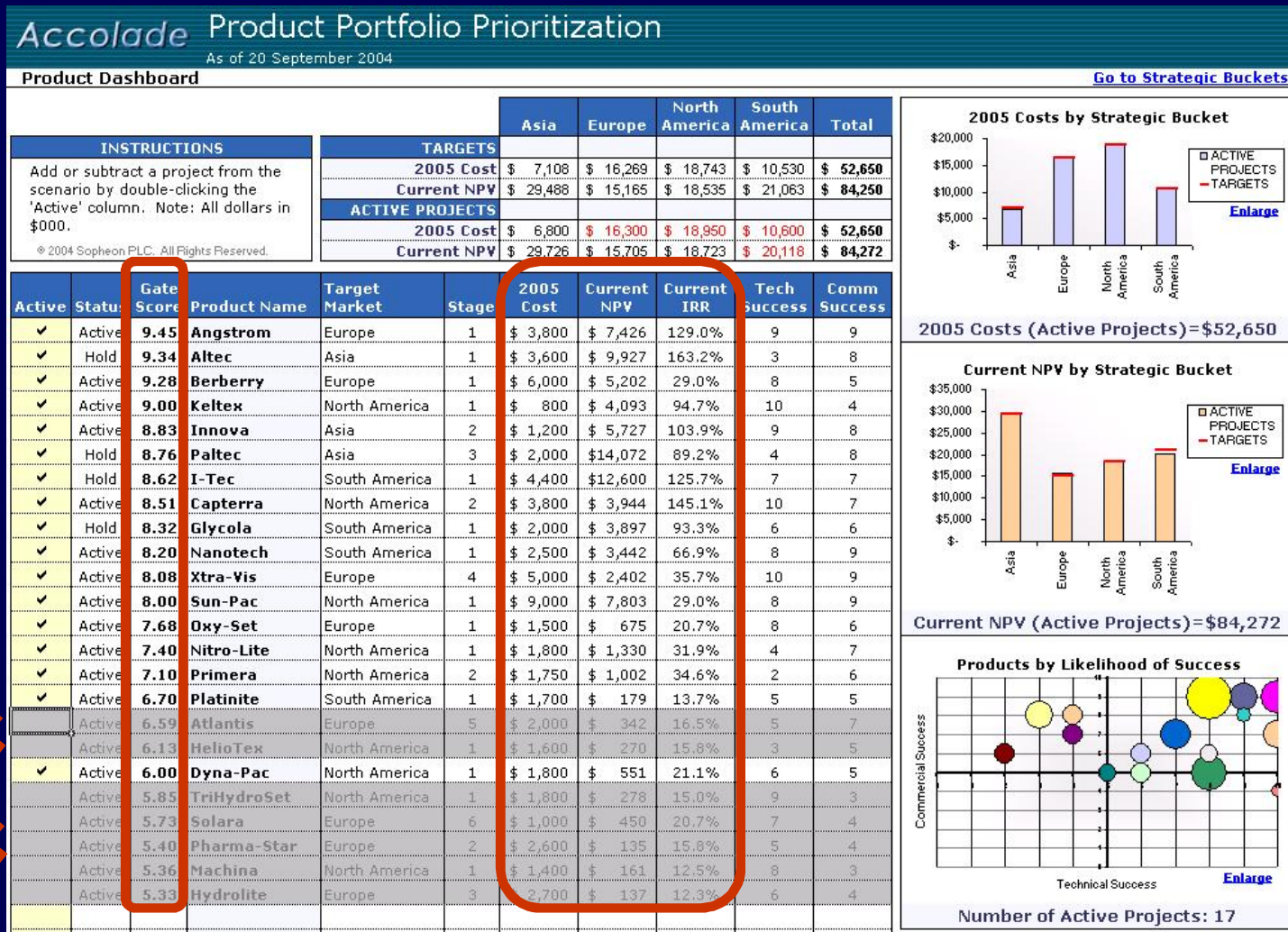
An Optimized, Critical Path Enabled Project Management Roadmap Is Developed for Each Development Project

Customized MS Project Work Plan

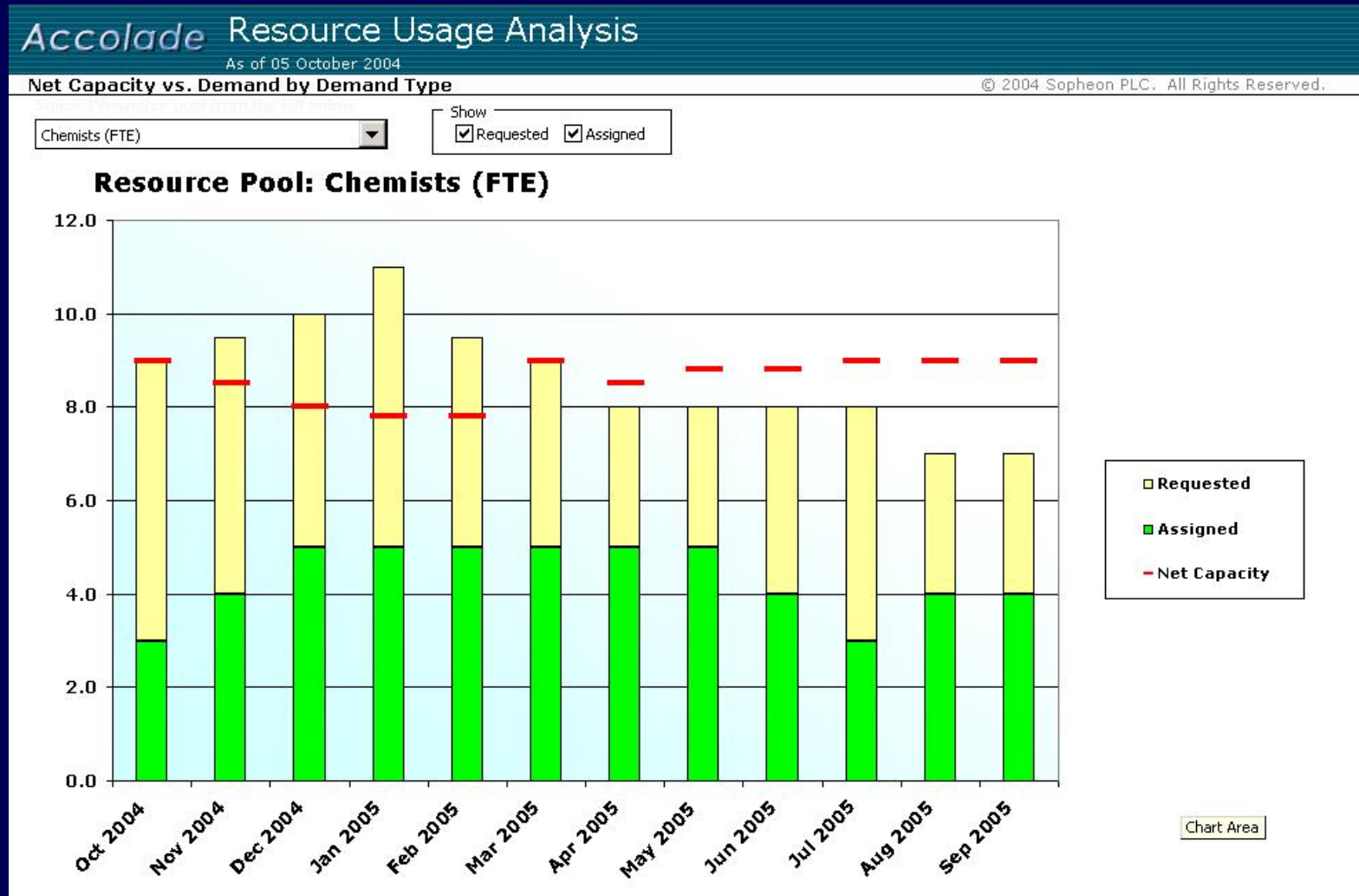


- Resources
- Critical path
- Deliverables

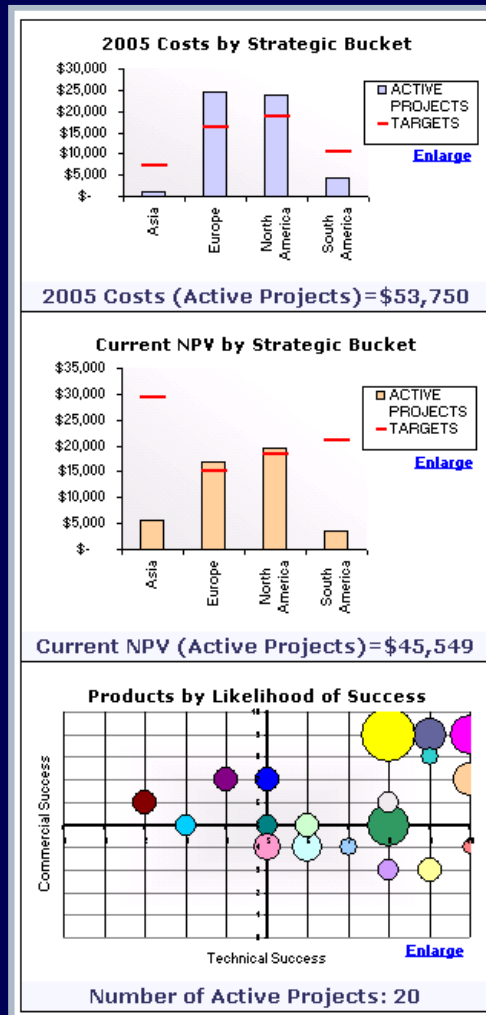
1. Action on Questionable Project Investments



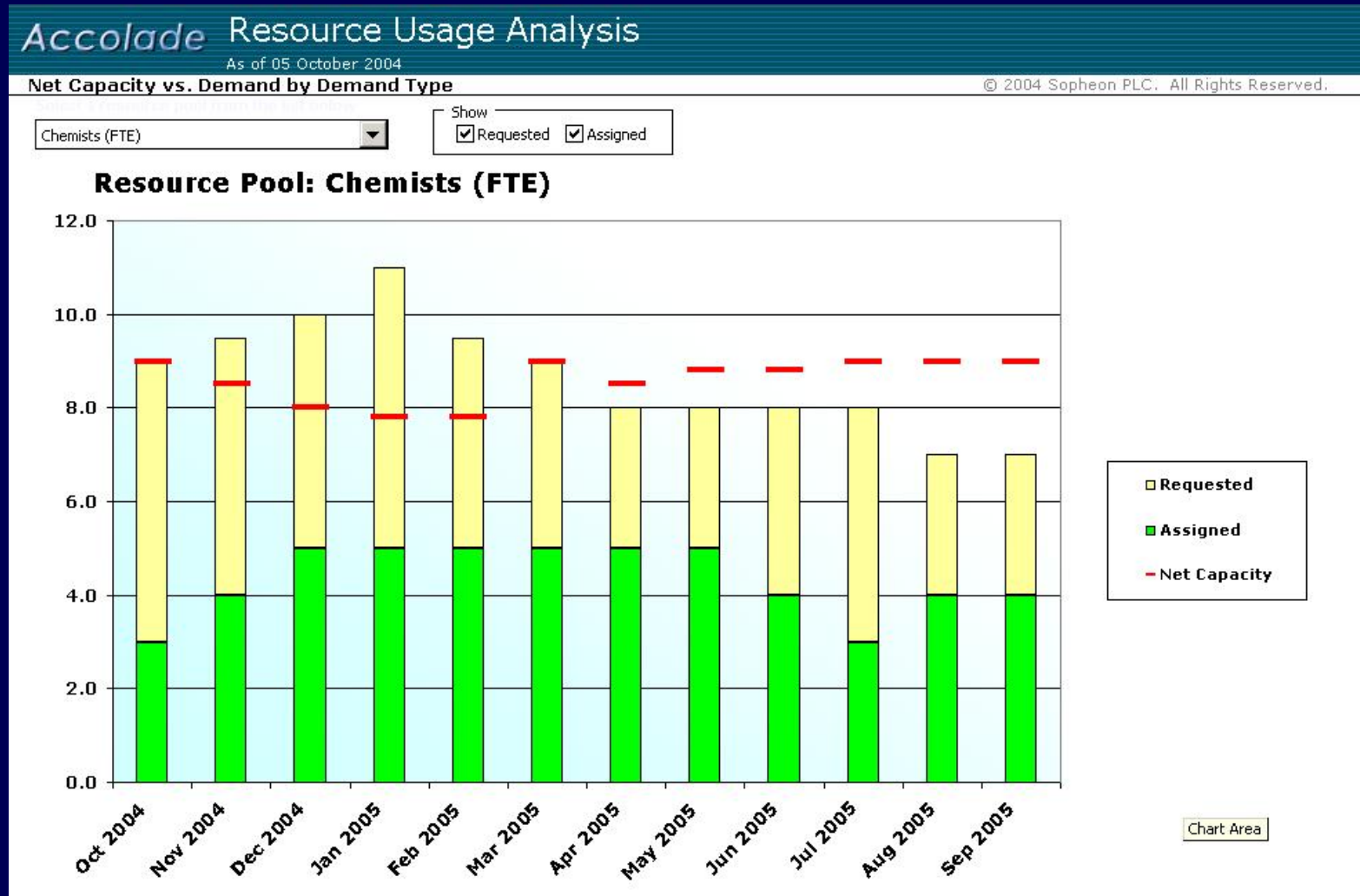
2. Critical Skill Sets Balanced



3. Investment Consistent With Strategy



4. Prioritized Projects Adequately Staffed



5. Decision Processes Operationalized to Teams

The screenshot shows the Accolade web application interface for a project named "Innova". The interface includes a top navigation bar with links for Home, Search, My Profile, Help, and Logout. A left sidebar contains various navigation options categorized under Project, Process, Resource, Idea, Administration, and My Links. The main content area displays a project overview with a timeline of stages: Discovery, Scoping, Build Business Case, Development, Testing and Validation, and Launch. Each stage has a corresponding icon and a "Go to" link with a date. Below the timeline, there is a "Project Summary" section with fields for Name, Description, and Team Leader. At the bottom, a "Project Status" table lists the project's history with columns for Date, Status, and Created by.

Project: Innova [Set as Home](#)

Stages: Home | Stages | Gates | Metrics | Details | Related Documents | Team | Discussions | Resources

Timeline:

- Discovery: Idea Screen (Sep 17, 2004)
- Scoping: **Go to Business Case (Nov 16, 2004)**
- Build Business Case: Go to Development (Dec 16, 2004)
- Development: Go to Testing (Sep 12, 2005)
- Testing and Validation: Go to Launch (May 10, 2006)
- Launch: Post-Launch Review (Nov 06, 2006)

Project Summary

Name	Innova
Description	New product based on micro-fiber technology designed for high water absorption and great longevity. Can be used for diapers, towels, sponges, or other applications in which absorption and durability are key concerns.
Team Leader	Jane Doe

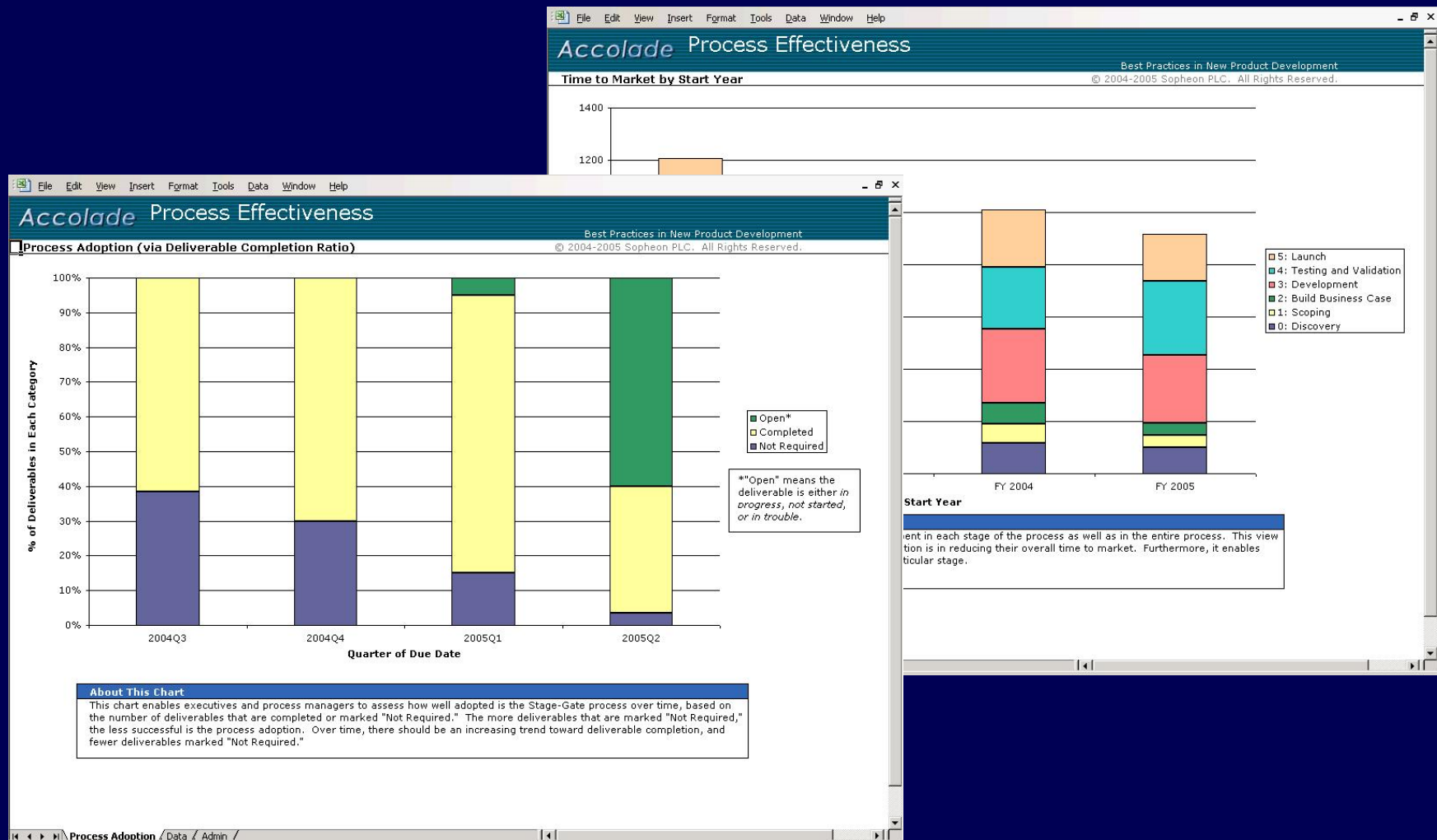
[View Routing History...](#)

Project Status 2 Statuses

Date ▼	Status	Created by
Sep 15, 2004	Preliminary product definition and technical assessments completed. No significant technical hurdles are foreseen. We are still in the process of gathering market data and will create a draft of the preliminary market assessment in the coming week.	Jane Doe
Aug 20, 2003	All system go! Everything is on track; all deliverables expected to be completed on time.	Jane Doe

[Add New](#)

6. Processes Monitored to Track Improvement



7. Reduced Administrative Burden

Gate Summary Project

Business Case Summary Financial

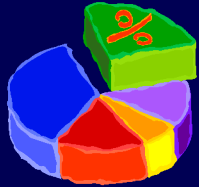
Business Case Summary Scorecard and Risk Metrics

- Current
- Current
- Gate the gain Gate project dev

For	Stage-Gate Evaluation Criteria	Other Risk Metrics
Net Present Value	Strategic Fit 8	Probability of Commercial Success 8
Internal Rate of Return (IRR)	Product & Competitive Advantage 9	Probability of Technical Success 9
Expected	Market Attractiveness 8	Market Newness 6
Expected - 2007	Synergies 8	Technical Newness 8
	Technical Feasibility 7	Competitive Strength 7
	Financial Reward vs. Reward 8	Ease of Implementation 6
	Project Attractiveness (Gate Score) 8.00	Degree of Financial Risk 8
		Are There Any "Killer" Variables? No

Accolade Stage-Gate® Process
Best Practices in New Product Development

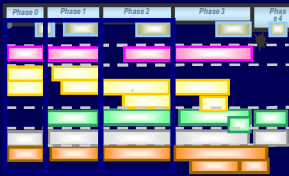
Improvements Applied to Critical NPD Areas



Corporate Portfolio Management

- Ensured a tight focus on the most valuable opportunities
- Linked R&D investment with business strategy and risk
- Provided ability to manage critical resources

Operationalized NPD Process



- Upgraded staged development process with cross-functional integration and project management capability
- Aligned lexicon, behaviors, and metrics to increase transparency, predictability, and adoption
- Structured decision forums for effective governance across the company

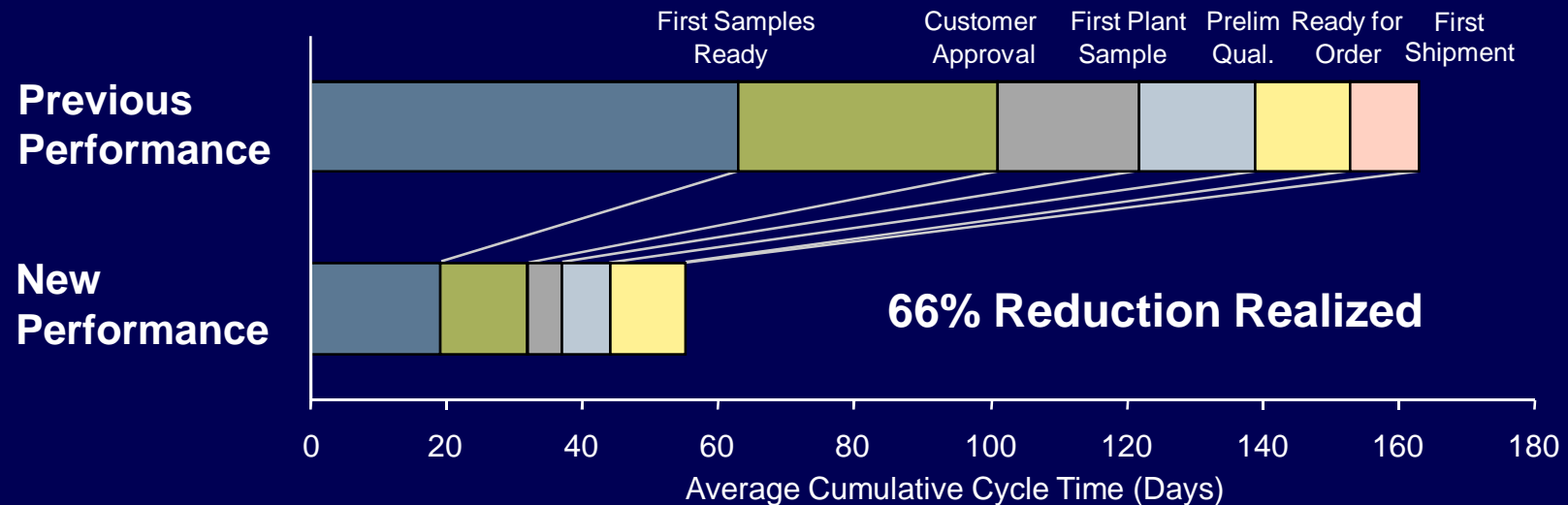


Enabled Tools and IT Systems

- Used systems and role-based process workflows to make decisions executable and controllable
- Dramatically reduced administrative burden

Results: 66% Reduction in Time to Market

Cycle-Time Performance Before and After Improvement Initiative



Also

- Increased market share
- Increased product revenue
- Decreased cost
- Increased profitability

Portfolio Management Improves Performance

