Innovation Delivered

CMMI Level 3 in a Large Multi-Disciplinary Services Organization, *by Sarah Bengzon*

2003 SEPG Conference

Boston, Massachussettes

Agenda

- About Accenture
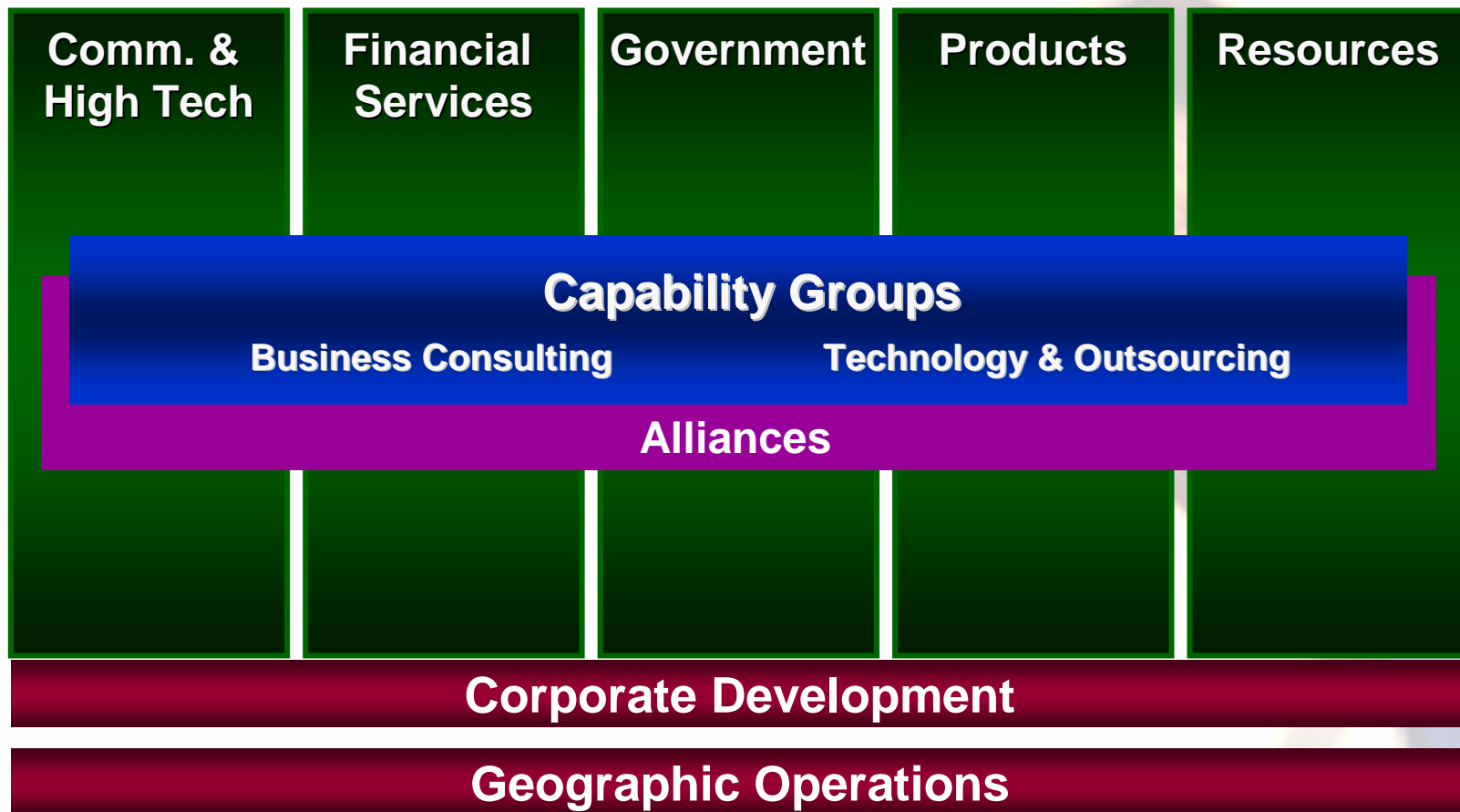
- CMMI Implementation
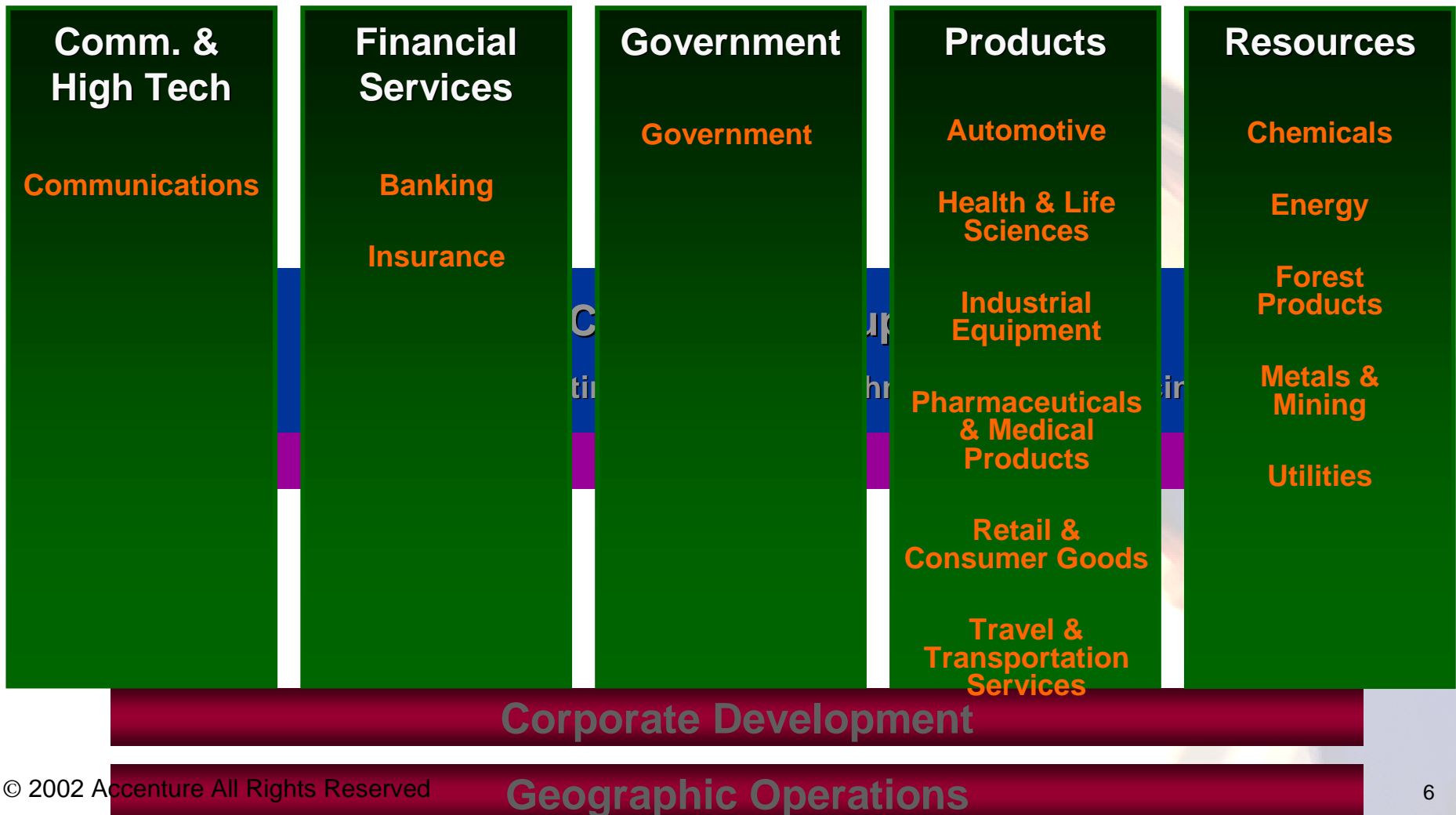
- Questions

About Accenture

About Accenture

- Accenture is one of the the world's leading management consulting and technology services organizations

- We collaborate with our clients to deliver innovation

- With more than 75,000 people in 47 countries, Accenture delivers to our clients a wide range of consulting, technology and outsourcing services, and participates in numerous alliances

- Accenture features offices in most of the world's leading business centers, including New York, Washington DC, Chicago, Dallas, Los Angeles, San Francisco, London, Frankfurt, Madrid, Milan, Paris, Sydney, Hong Kong and Tokyo

- Accenture operates globally with one common brand and business model designed to enable us to serve our clients on a consistent basis around the world

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Market-facing structure

Comm. & High Tech	Financial Services	Government	Products	Resources

Capability Groups

Business Consulting   Technology & Outsourcing

Alliances

Corporate Development

Geographic Operations

Operating Groups and Industry Groups

Comm. & High Tech

Communications

Financial Services

Banking

Insurance

Government

Government

Products

Automotive

Health & Life Sciences

Industrial Equipment

Pharmaceuticals & Medical Products

Retail & Consumer Goods

Travel & Transportation Services

Resources

Chemicals

Energy

Forest Products

Metals & Mining

Utilities

Corporate Development

Geographic Operations

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Capability Groups

Comm. & High Tech	Financial Services	Government	Products	Resources

Capability Groups

Business Consulting

Service Lines

- Strategy & Business Architecture
- Customer Relationship Management
- Supply Chain Management
- Human Performance
- Finance & Performance Management

Solution Units

- HR Services
- Accenture Learning and Strategy

Technology & Outsourcing

Service Lines

- Technology Research & Innovation
- Solutions Engineering
- Solutions Operations

Solution Unit

- Avanade

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Strategic Delivery Capability

- Our global strategic delivery approach emphasizes quality, reduced risk, speed to market and predictability. Our ultimate goal is to deliver to clients price-competitive solutions and services that create value.

- A key strength is our ability to create and capture repeatable components of methodologies and technologies, which we can customize to create tailored solutions for our clients in a cost-effective manner and under demanding time constraints. Core solutions include:
  - System building and integration delivery.
  - The design, building, running and operating of enterprise solutions.
  - Legacy application management and re-platforming.
  - Co-sourced or outsourced creation of client-specific facilities.
  - Web services.
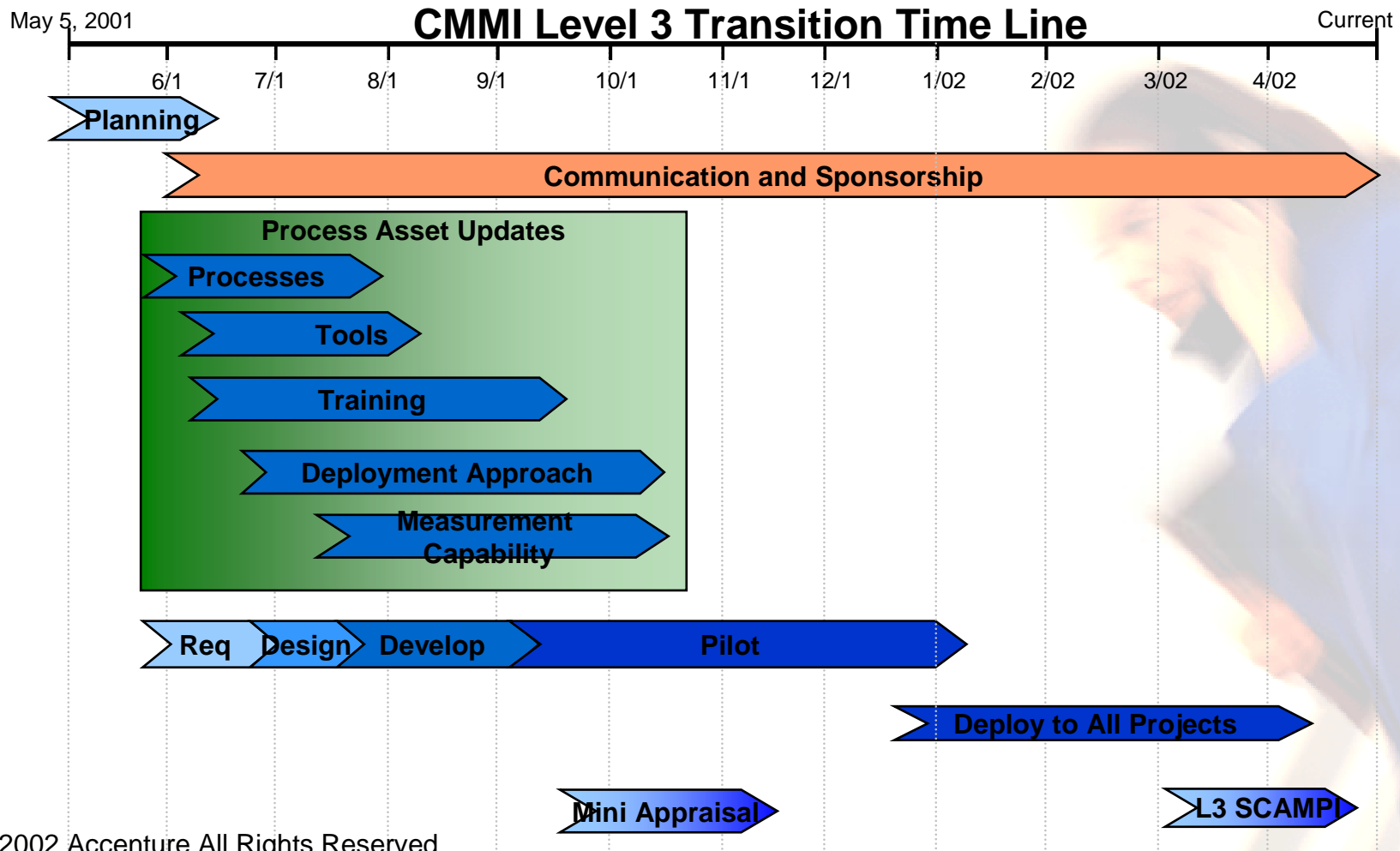
CMMI Implementation

CMMI Implementation

- Process Improvement Background
- CMMI Transition Approach
- Why CMMI
- CMMI Enablers
- Applying CMMI At Accenture
- CMMI Results
  - CMMI Transition Statistics
  - Level 3 SCAMPI experience
  - Key Points

Process Improvement Background

- USA Government Operating Unit
- History of structured methodology (i.e., Method/1, Accenture Methods, BI Methodology)
- Integrated work approach and multi-disciplinary teams (i.e., people, process, technology)
- Structured knowledge management
- On average, Accenture spends over $600M in annual training investments
- ISO registration for all operating groups
- CMM-SW Level 3 in parts of the organization

CMMI Level 3 Transition Approach

CMMI Level 3 Transition Time Line

May 5, 2001   Current

6/1   7/1   8/1   9/1   10/1   11/1   12/1   1/02   2/02   3/02   4/02

- Planning
- Communication and Sponsorship
- Process Asset Updates
  - Processes
  - Tools
  - Training
  - Deployment Approach
  - Measurement Capability
- Req
- Design
- Develop
- Pilot
- Deploy to All Projects
- Mini Appraisal
- L3 SCAMPI

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Why CMMI

- Is this a good business decision?
- Does it make sense for the way we do our work?
- What value does it bring?
- How much does it cost?
- What is our transition strategy?
- Is it stable enough?

Business Alignment

Solution Delivery Approach
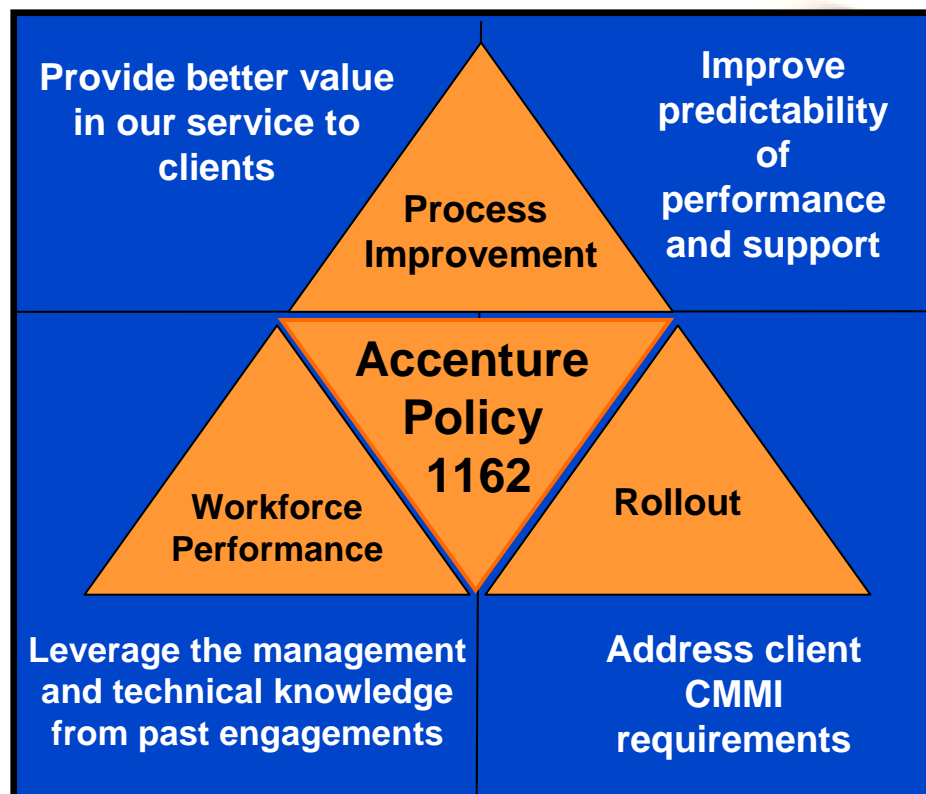
Integrated Product Teams

Client Requirements

Key Differentiator

CMMI Enabler –
Quality and Process Improvement Program

Drivers

- Changing Client Expectations

- Business Value

Provide better value in our service to clients

Improve predictability of performance and support

Process Improvement

Accenture Policy 1162

Workforce Performance

Rollout

Leverage the management and technical knowledge from past engagements

Address client CMMI requirements

KEY

Objectives

Enablers

CMMI Enabler – Business Integration Approach

Teaming with our client's personnel using a flexible integrated model which provides a distinctively superior ability to formulate and deliver on large-scale complex programs
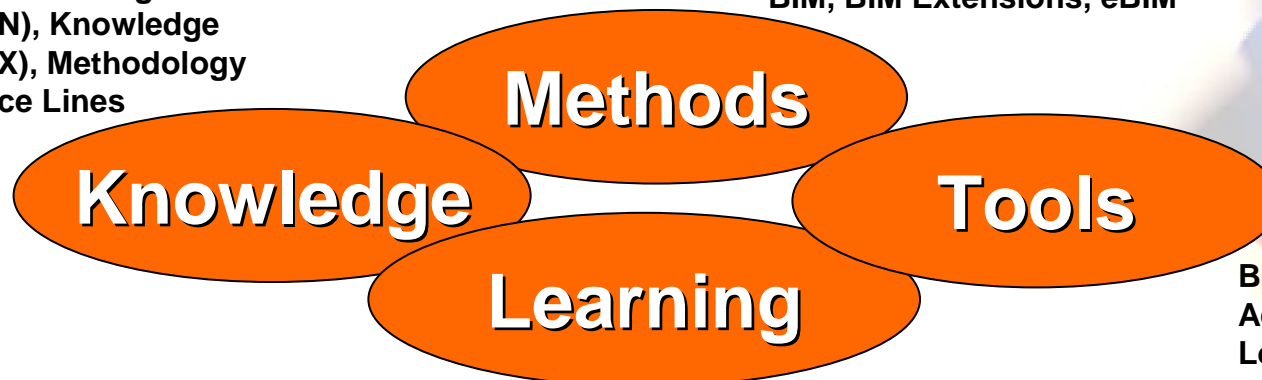
Applying CMMI - Process Management at Accenture

People Enablement equips Accenture's people with high impact learning and knowledge assets, solution delivery tools, and capability development services to help them succeed in delivering value, while continuously growing their own professional capabilities.

Government Knowledge Network (GKN), Knowledge Exchange (KX), Methodology Finder, Service Lines

BIM, BIM Extensions, eBIM

Methods

Knowledge

Tools

Learning

BI Estimator, BI Designer, Accenture Portal. Octel Lotus Notes, Standard Laptops

mylearning.com, Service Line Training, Industry Training, Technology Training

Applying CMMI - Project Management at Accenture

Plan Project Execution
- Tailoring Processes (Guidelines and Process Improvement Liaisons)
- Develop Project Plans (Metrics, DAR, Mission, Vision, Lifecycle)
- Develop Subordinate Plan (CM, Risk, SubContractor, Communication, Sponsorship)
- Developing Estimates and Assumptions

Organize Project Resources
- Establish Standards and Procedures
- Establish Teaming Structure
- Train Project Team Members
- Obtain Other Resources (Hardware, Software, Facilities, Subcontractors)

Control Project
- Measure and Manage Performance (Metrics, Corrective Action, Decision Making)
- Communicate Project Status (CM Audits, Status Reports)
- Update Plans
- Obtain Deliverable Acceptance

Complete Project
- Obtain Formal Acceptance of Deliverables
- Finalize Documentation
- Evaluate Project (Profiling Data, Metrics, KX Submissions)

Applying CMMI - Support - Quality Management at Accenture

Independent Reviews

CQMA
- Independent Partner Reviews
- Client Satisfaction Surveys

SQA
- Process – PI Liaison Best Practice Reviews
- Work Product – Independent Reviews

Super SQA
- Independent review of the QPI program
- Independent review of the AGC Quality program

Appraisals
- SCE
- SCAMPI
- Mini appraisals
- Document reviews

Project Reviews
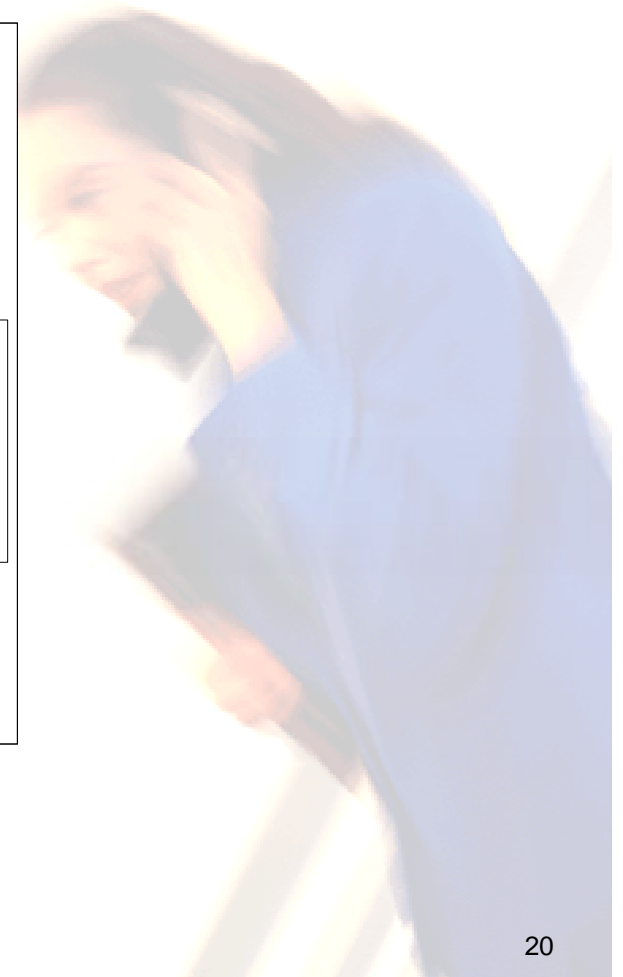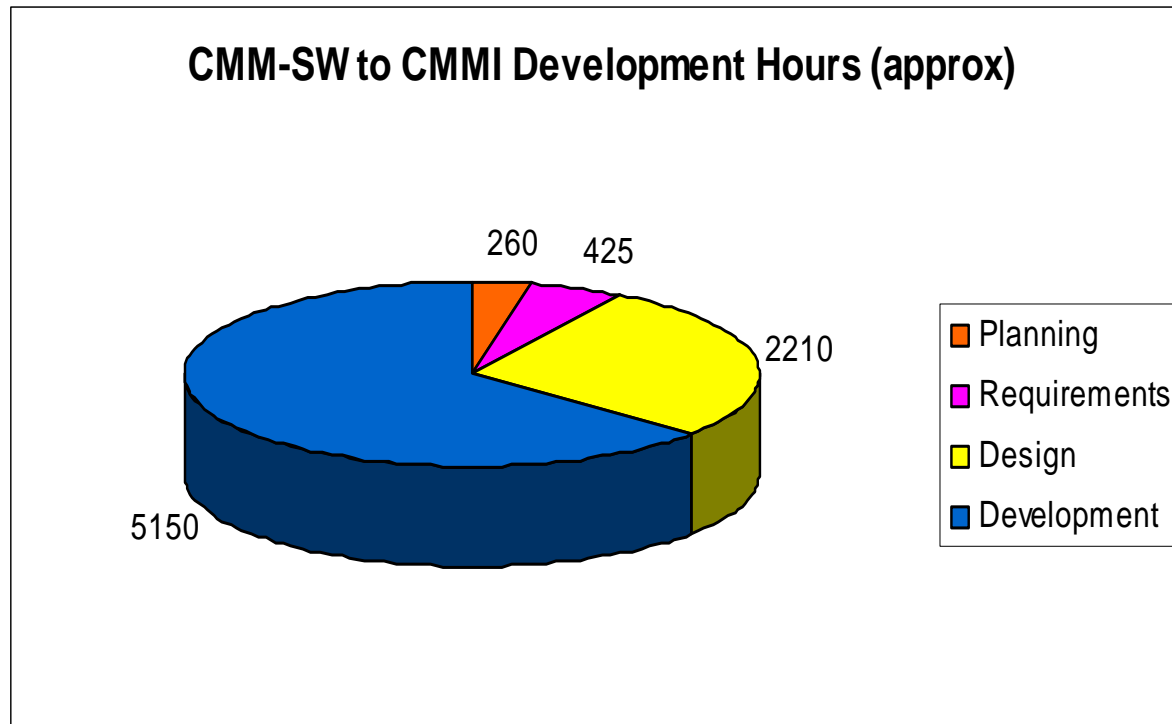
| Peer Review | Supervisor Review | Management Review | Testing |

Applying CMMI - Engineering at Accenture

Maintenance

Analysis
- Define Business Case
- Requirements Gathering & Analysis (Identify Risks, Define User/Business Requirements, Conduct Conference Room Pilot)
- Assess Deployment Environment
- Identify and Analyze Application/Interface Requirements (RTM)

Design
- Design Technology Infrastructure (Review Technical Requirements, Select and Design Architectures)
- Design Application (Architecture, Databases, Plan Testing Approach, Design Performance Support Approach. Fit Analysis)

Build & Test
- Build and Test Technology Infrastructure (Acquire Assets and Services, Build and Test Architectures)
- Build and Test Application (Deployment Planning, Detail Design, Execute Test, Develop Policies& Procedures, Develop Learning Products)
- Plan & Execute Product Test and User Acceptance Test

Deployment
- Transition Users and Deploy Policies and Procedures
- Deploy Physical Environment
- Deploy Application
- Deploy Technology Infrastructure

CMMI Results
CMM-SW to CMMI Transition Statistics

CMM-SW to CMMI Development Hours (approx)

260   425

2210

Planning

Requirements

Design

Development

5150

CMMI Results
Level 3 SCAMPI Experience

- Scope covered:
  - USA Government Operating Unit
  - CMMI SW/ SE/ IPPD v 1.02
  - SCAMPI v1.1, fully external team (4 appraisers)
  - 6 large Accenture projects across the US
    - Technologies: SAP/ Manugistics/ PD2, PeopleSoft, Siebel CRM, Custom UML, ColdFusion, TAS
    - Applications: Payroll, financials, HR, welfare, public assistance, employment, revenue management operations, real estate assessments, business transformation, customer relationship management
  - Appraisal Cost
    - Approx 232 pre-onsite hours
    - Approx 400 on site hours
    - Appraisal fees, travel and incidentals
    - Preparation and participation time

CMMI Results
Key Points - Benefits

- Organization appraised at CMMI Level 3 eight months after initial deployment

- Projects achieve 'CMMI compliance' in 4 months or less

- There can be a 5:1 return on investment for quality activities

- Early focus on measurement gives additional management capability

- Deployment was much easier for new projects (vs. existing)

CMMI Results
Key Points – New Content

- Measurement and Analysis
  - Think level 4 and 5
- Decision Analysis and Resolution
  - Technical Solution
  - Change control
  - Requirements Management
- IPPD concepts
  - Project vision/ organization vision
  - OEI practices
- Generic practices
- Look for existing mappings with new PAs

CMMI Results
Key Points – Implementation

- Being one of the first is not easy
  - Lack of industry data/ experience
  - CMMI content not well established (interpretation, evolving content)
  - SCAMPI v1.1 just released!

- Need to get buy in
  - Sponsorship has never been more critical
  - Support projects during transition

- What helped
  - BI Methodology
  - Treat it like a 'real project'

Questions

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