

# Integrating CMMI & ITIL: An Outsourcing Success Story

Joanne Kopcho  
Capgemini, Outsourcing Services



# Overview

---

- This presentation describes our success story implementing both CMMI and ITIL at an IT outsourcing account, with a staff evenly split between applications developers and infrastructure support personnel.
- With CMMI describing our process framework (the "what") and ITIL as the basis of our best practices (the "how"), we were able to:
  - Achieve CMMI Maturity Level 2 just nine months after the initiation of the improvement program
  - Address the needs of developers, support staff, and managers within the same broad lifecycle framework
  - Lay the groundwork for accelerated future process improvement and service delivery optimization

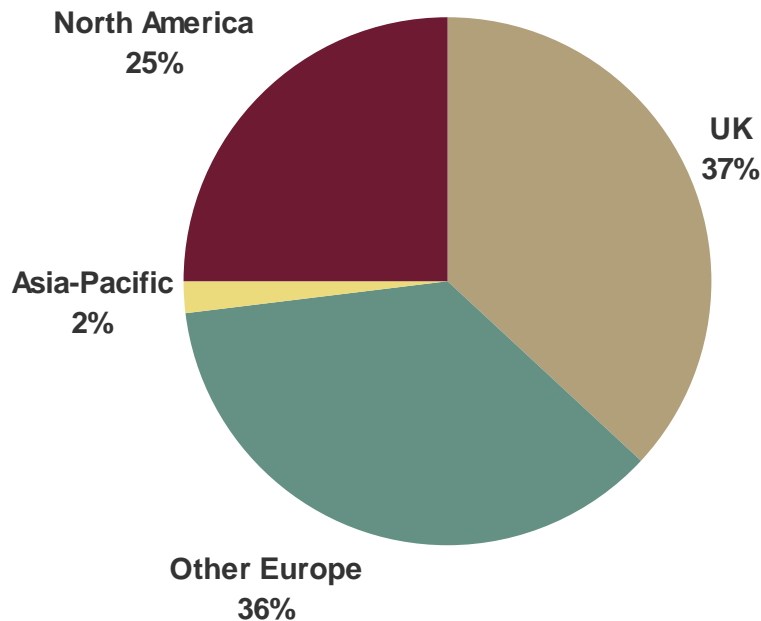
# Agenda

---

- Background
- Improvement Objectives
- Planning
- ITIL
  - Overview
  - Mapping Approach
  - Coverage of CMMI
- Blended Improvement
- Schedule Completion
- Returns and Lessons Learned

# We are Recognized as a Global Leader in Outsourcing Services

## Outsourcing Revenue by Region as of December 31, 2004



*"Gartner notes that [Capgemini]'s outsourcing deal with The UK Inland Revenue [now part of HM Revenue & Customs] (worth more than US\$5 billion over 10 years) was the largest outsourcing deal worldwide in 2003."*  
(Gartner, 2004)

*"Capgemini has joined the league of serious contenders in outsourcing with two large contracts signed in 2004"*  
(Ovum, 2005)

### OS Revenue 2004

- €2,081 million

### Global Coverage

- 15,000 outsourcing professionals
- 20 countries

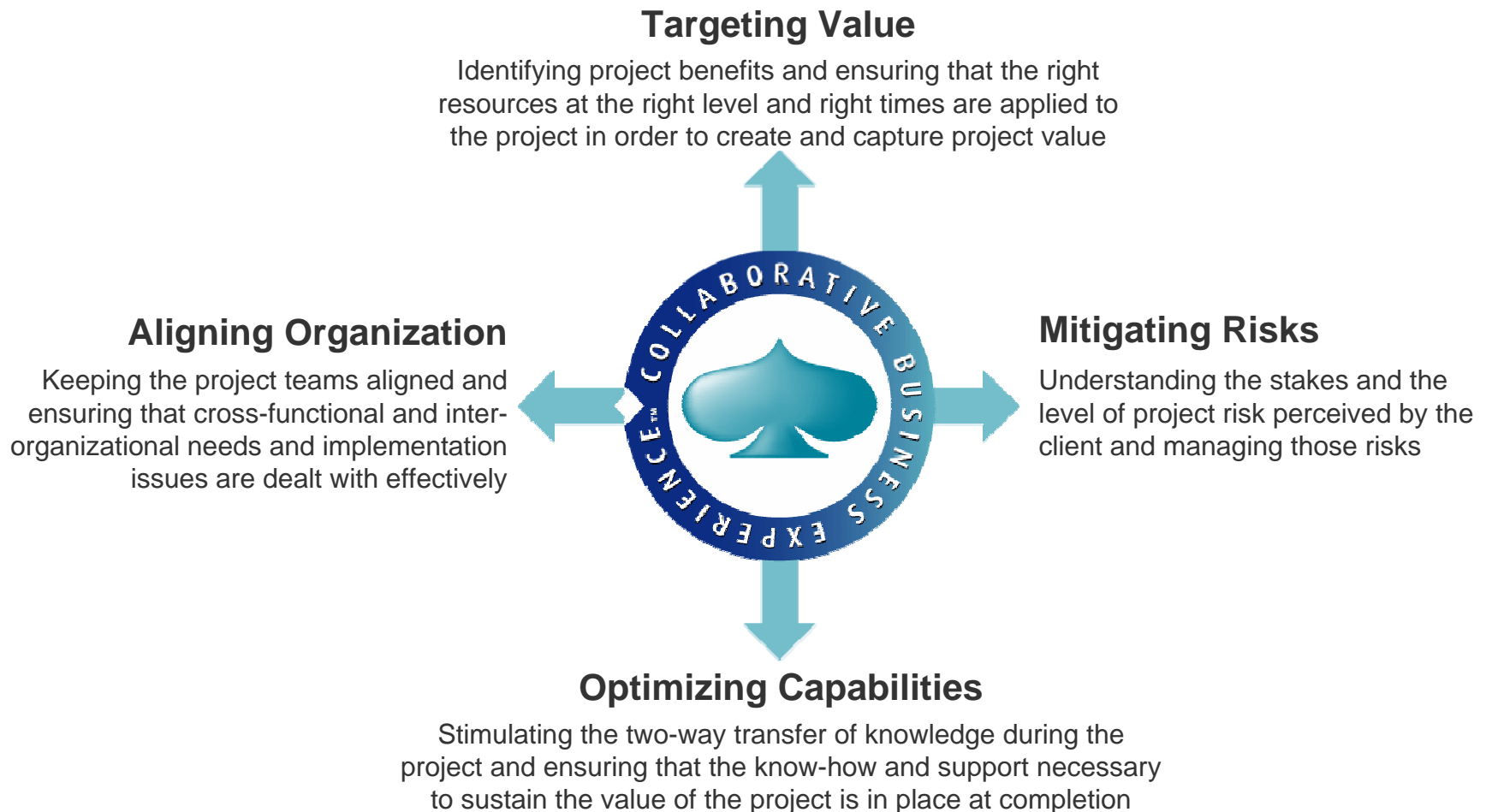
### Recent Major Contracts

- ABB (Sweden)
- HM Revenue & Customs (formerly Inland Revenue) (UK)
- TXU (US)
- Schneider Electric (France)
- Lucent (US)

# We Have a Single Business Philosophy and Approach – The Collaborative Business Experience

---

The Collaborative Business Experience Enables Capgemini To Help Our Clients Achieve Better, Faster And More Sustainable Results



# DELIVER

---

- We use our DELIVER framework and methodology to discover and blend our clients' best-practices with our own to make a stronger whole.
  - We take the time to analyze and evaluate the best practices our clients have in place.
  - We perform a gap analysis in order to develop a plan for applying our DELIVER methodology to your business.
  - We develop detailed action plans and schedules to implement process changes in a focused and controlled manner.
  - Cross-functional and cross-organizational teams implement the changes to your IT and business processes.
  - Industry assessment and regulatory auditing validate that the process changes are right for your business.
  - DELIVER is our answer to the numerous regulatory and industry models relevant to our clients' businesses.

# DELIVER Outsourcing Framework

## Where does it come from?



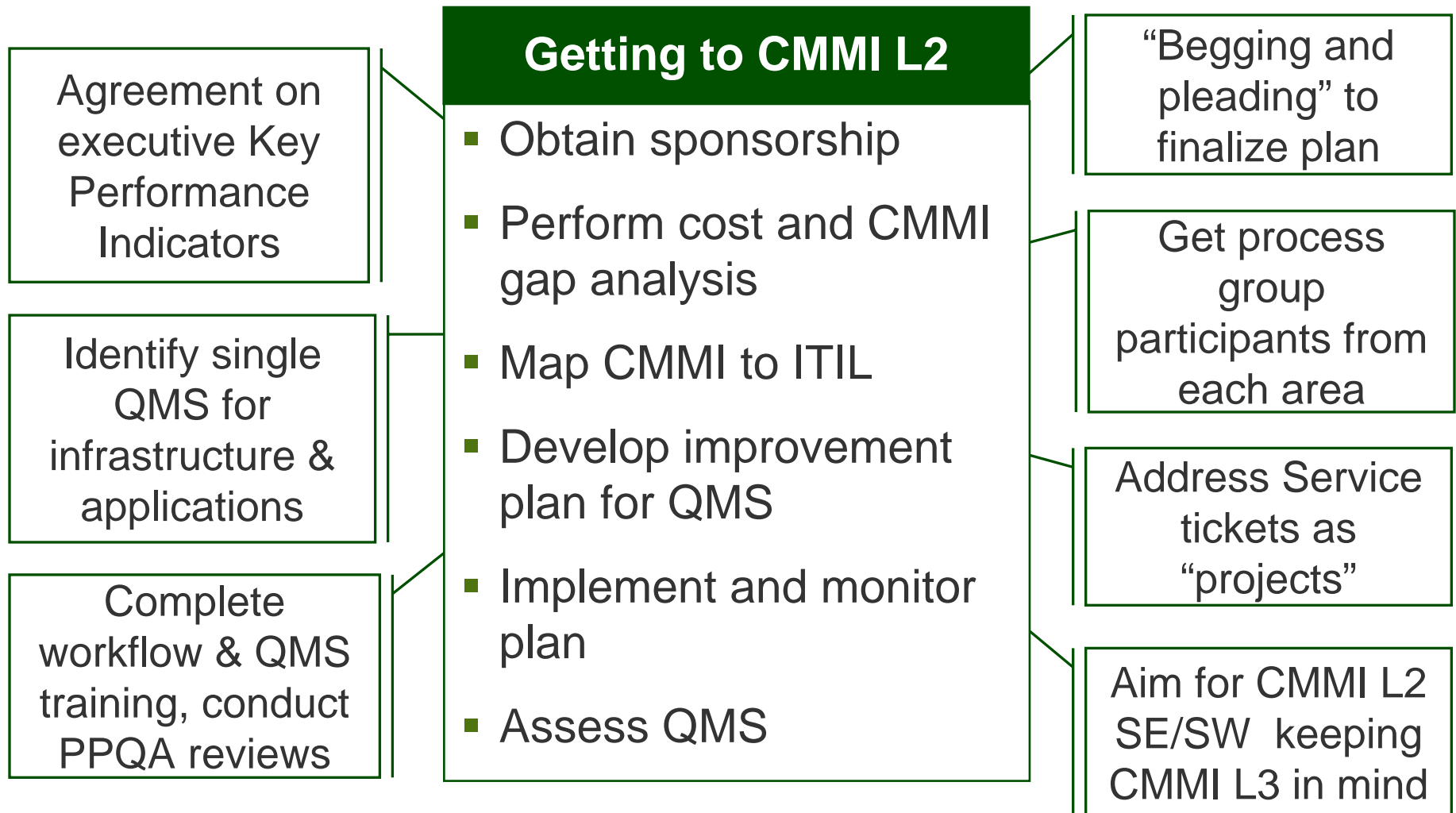
# Improvement Objectives

---

- Targeted implementation of a consistent process infrastructure for providing services to a major outsourcing client
  - Increase cost efficiency across the outsourcing center
  - Utilize consistent processes to reduce costs and increase efficiencies across IM and AM teams
- Utilize CMMI and ITIL industry standards
  - Address growing client and market requirements
  - ITIL Service Support
  - CMMI Level 2



# Plan of Attack for Improvement



# Introduction to ITIL

---

ITIL, the Information Technology Infrastructure Library, is a set of industry best practices that is fast emerging as a global standard for IT service management

## Service Delivery Processes

- *The services customers need to support their businesses, and what is needed to provide those services*
  - Service Level Management
  - Financial Management
  - Capacity Management
  - IT Service Continuity Management
  - Availability Management

## Service Support Processes

- *How services are supported for customers & users to access to support their business*
  - Service Desk
  - Incident Management
  - Problem Management
  - Configuration Management
  - Change Management
  - Release Management

# Mapping Approach

---

- ITIL to CMMI for SW/SE/IPPD/SS mapping
- ITIL Service Support best practices were divided into sections for use as “requirements”
- Focused on mapping CMMI
  - Specific practices for each process area within CMMI
  - Generic practices across all process areas at CMMI
- Utilized, where appropriate, appendix sections within ITIL to ensure coverage
  - For example, PRINCE2 Project Management processes

# ITIL Coverage of Process Areas

| Process Areas Level 2 | Number CMMI Specific Practices | Number ITIL References Mapped | Percent Coverage |
|-----------------------|--------------------------------|-------------------------------|------------------|
| REQM                  | 5                              | 5                             | 100%             |
| PP                    | 14                             | 3                             | 21%              |
| PMC                   | 10                             | 1                             | 10%              |
| CM                    | 7                              | 7                             | 100%             |
| MA                    | 8                              | 1                             | 13%              |
| PPQA                  | 4                              | 2                             | 50%              |
| VER                   | 8                              | 4                             | 50%              |
| VAL                   | 5                              | 3                             | 60%              |
| PI                    | 9                              | 4                             | 44%              |
| DAR                   | 6                              | 5                             | 83%              |
| OPF                   | 7                              | 1                             | 14%              |
| OPD                   | 5                              | 2                             | 40%              |
| OT                    | 7                              | 3                             | 43%              |
| CAR                   | 5                              | 2                             | 40%              |

Higher percentage of Service Support activities are related to the Managed Maturity level

## ITIL Coverage of Generic Practices

---

| Generic Practice Goals | Number of CMMI Generic Practices | Number ITIL References Mapped | Percent Coverage |
|------------------------|----------------------------------|-------------------------------|------------------|
| GG2                    | 10                               | 7                             | 70%              |
| GG3                    | 2                                | 2                             | 100%             |

Majority of the institutionalization factors in CMMI are addressed in ITIL role, skill and management specifics

## ITIL Coverage by Maturity Levels

---

| Maturity Level | Number Process Areas | Percent Coverage of ITIL |
|----------------|----------------------|--------------------------|
| 2              | 7                    | 40%                      |
| 3              | 21                   | 29%                      |
| 4              | 23                   | 27%                      |
| 5              | 25                   | 26%                      |

ITIL supplies the best practices for service support and is balanced out by the process improvement activities provided within CMMI

# Blend of CMMI and ITIL for QMS Improvements

---

- Service Desk and Incident Management
  - Improved timeliness of service ticket handling
  - Improved problem model definitions for appropriate reporting of incidents
  - Concise identification of requirements within documented tickets
  - Agreement of requirements with end-user within tickets
- Problem Management
  - Clear definition of process activities and roles
  - Formalized training on Root Cause Analysis process

## Blend of CMMI and ITIL for QMS Improvements (cont'd)

---

- Release Management, Configuration and Change Management
  - Defined boundaries across environments to further refine configuration items (CIs)
  - Integrated configuration management practices across disciplines through defined CM planning
- Project Management
  - Alignment of service management activities within formalized planning
  - Increased understanding of service project budget activities
  - Service project and client project planning tightly linked with overall resource utilization



## Accelerating the Schedule...

---

- Continued management support through weekly reviews
- PPQA activities conducted across each domain, monthly
  - Measured coverage of process and work product activities across the QMS
  - Reported status towards goal to management, weekly
- Conducted SCAMPI-C type health checks to monitor readiness
  - Scheduled reviews at month 4 and 7 of implementation
  - Utilized same Lead Appraiser for all SCAMPI reviews
- Planned SCAMPI-A starting in month 7

## Return on Investment

---

- Decreased rejected Change Requests from more than 10% to less than 3%
- Reduced the number of rejected Root Cause Analysis reports by 30%
- Reduction in number of aging tickets by 37%

## Lessons Learned

---

- ITIL and CMMI models helped convince the technical staff of the benefits of process improvement, facilitating cultural change
  - By treating services as projects, we introduced the service delivery planning aspects of ITIL
- We trained the organization on our CMMI-compliant Quality Management System (QMS), not the CMMI model; we had a small number of CMMI experts and trained the entire staff on the QMS
  - Focused on “the way to do business,” not compliance with model
- Availability of Configuration Management plans helped the teams better understand what was being managed and tied in to Asset Management activities

## Best Practices

---

- It was sometimes difficult—but very necessary—to ensure adequate resources from teams to help implement plans and QA audit activities
- Use one process across IM and AM activities to reduce resource requirements
- Establish document and measurement repositories early (eases transition to L3)
- Schedule scope of SCAMPI-A assessments early in the QMS rollout
  - Interviews covered 30% of organization
  - Project sampling covered 100% of project types across organization

# References

---

## ■ Books

- *IT Service Management: An Introduction Based on ITIL* (van Bon, Jan; ISBN 9077212280)
- *ITIL Service Support* (OGC; ISBN 0113300158)
- *ITIL Service Delivery* (OGC; ISBN 0113300174)
- *CMMI: Guidelines for Process Integration and Process Improvement* (Chrissis, Mary Beth et al; ISBN 0321154967)

## ■ Web sites

- ITIL: <http://www.itil.co.uk>

## Contact Information

---

**Joanne Kopcho**

**Capgemini, Outsourcing Services**

**Phone +1 917 320 2162**

**Email [joanne.kopcho@capgemini.com](mailto:joanne.kopcho@capgemini.com)**

**Tyrone Reece**

**Capgemini, Outsourcing Services**

**Phone +1 917 320 3894**

**Email [tyrone.reece@capgemini.com](mailto:tyrone.reece@capgemini.com)**

**Web <http://www.capgemini.com>**