

CMMI for Acquisition Organizations: The Next Wave of Outsourcing

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General Motors Corporation**





HUMMER







HOLDEN

















Our Products

1 in every 6 cars built in the world is from the GM Automotive Network



GMC



Chevrolet



Cadillac



Saturn



Vauxhall



Saab



Holden



Opel



Hummer



Pontiac



Daewoo



Buick



General Motors Corporation

- World's largest provider of transportation products and related services
- Sold 9.17 million cars and trucks globally in 2005
- Sells products in more than 200 countries
- 327,000 global employees
- Manufacturing operations facilities in 33 countries
- 14,000 dealers help GM deliver to the market
- 2005 revenue of \$193 billion



Manufacturing at GM

**178 Plants located in
33 Countries**

**Approximately 5,000
parts in each vehicle**

**\$104 billion of material
and services purchased
annually**

**375 million sq ft of
Manufacturing space
including Joint Ventures**

**14 million pounds of
material received daily**

**3,200 sources provide
delivery "just in time"**



Why IT Means Business at General Motors?



Crash Tests Through the Years

Crash Test - 1936



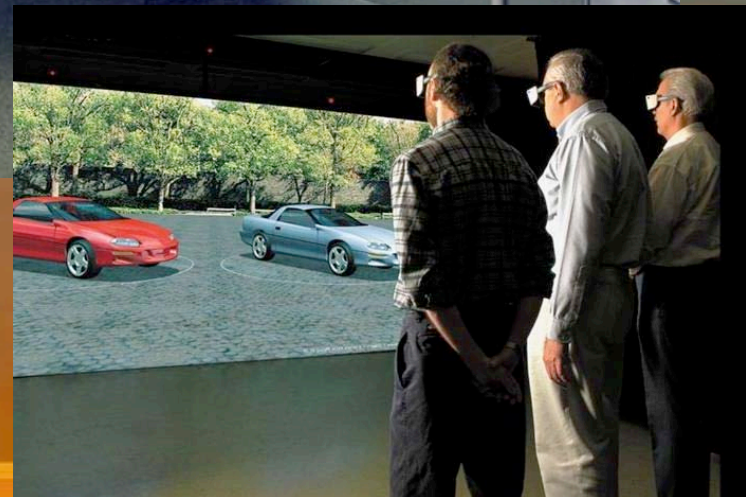
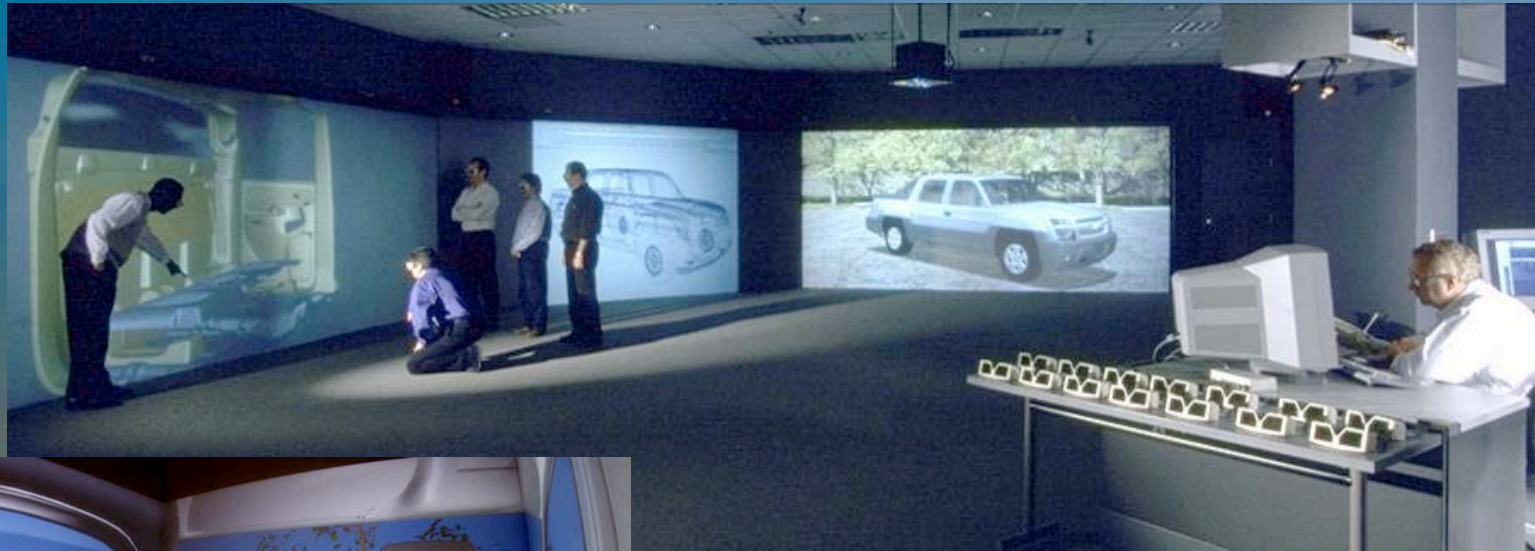
Crash Tests Today



P90, 30MPH CENTER POLE
Time = 0



Visualizing Product Before Build





OnStar: Innovative Services for Subscribers

- Automatic Airbag Crash Notification
- OnStar Vehicle Diagnostics which is a monthly email from vehicle to its owner
- Turn by Turn which is a new navigation service that has just launched
- OnStar is the 2005 CIO Enterprise Value Awards Grand Winner

The screenshot displays the OnStar Vehicle Diagnostics interface for a 2006 Buick LaCrosse as of 11/01/2005. The interface is divided into several sections:

- DIAGNOSTIC INFORMATION:** Lists various systems with their diagnostic status and action suggestions:
 - Engine and/or Transmission System: Diagnostic Completed. No action needed.
 - Air Bag System: Diagnostic Completed. No action needed.
 - Braking System: Diagnostic Completed. No action needed.
 - OnStar System: Diagnostic Completed. No action needed.
- MAINTENANCE INFORMATION:** Shows Remaining Oil Life at 0%, suggesting a visit to the GM dealer as soon as possible.
- NOTIFICATION INFORMATION:** Includes a Recall Reminder for campaign # <XXXXXXXXXX>, OnStar Subscription details (Account Number: 123-4567-890, expires 06/13/06), Hands-Free Calling status (72 minutes remaining, good until 6/13/06), and XM Satellite Radio trial information (trial ends 11/1/05, radio ID 12345678).
- DEALER INFORMATION:** Lists the selling dealer as BERGER PONTIAC-OLDSMOBILE-BUICK-CADILLAC-GMC at RR3 BOX 3436 SUSQUEHANNA BLVD., HAZELTON, PA 18202, with phone number (570) 454-9666.

The interface also features a navigation bar with links for "DIAGNOSTICS & SERVICES", "RENEW SUBSCRIPTION", and "PRIVACY POLICY". A "Goodwrench" logo is visible at the top left of the diagnostic section.

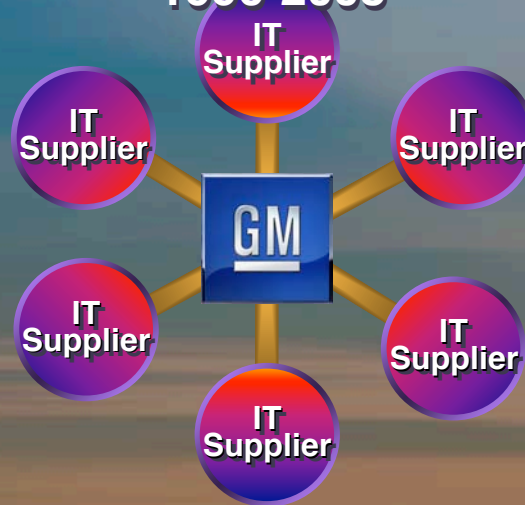


The IT Outsourcing Process at GM

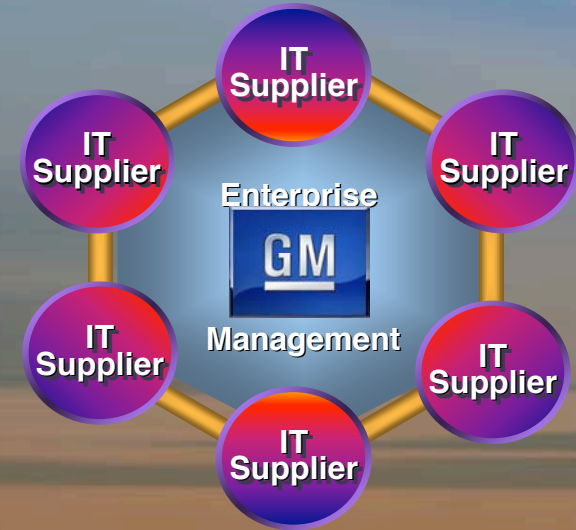
First Generation 1984-1996



Second Generation 1996-2003



Third Generation 2003→



- GM purchases EDS: all IT employees transferred to EDS

- EDS business unit split off
- GM IT formed
- Adoption of CMMI

- Multi-Supplier environment
- Business Process Outsourcing
- CMMI for Acquisition

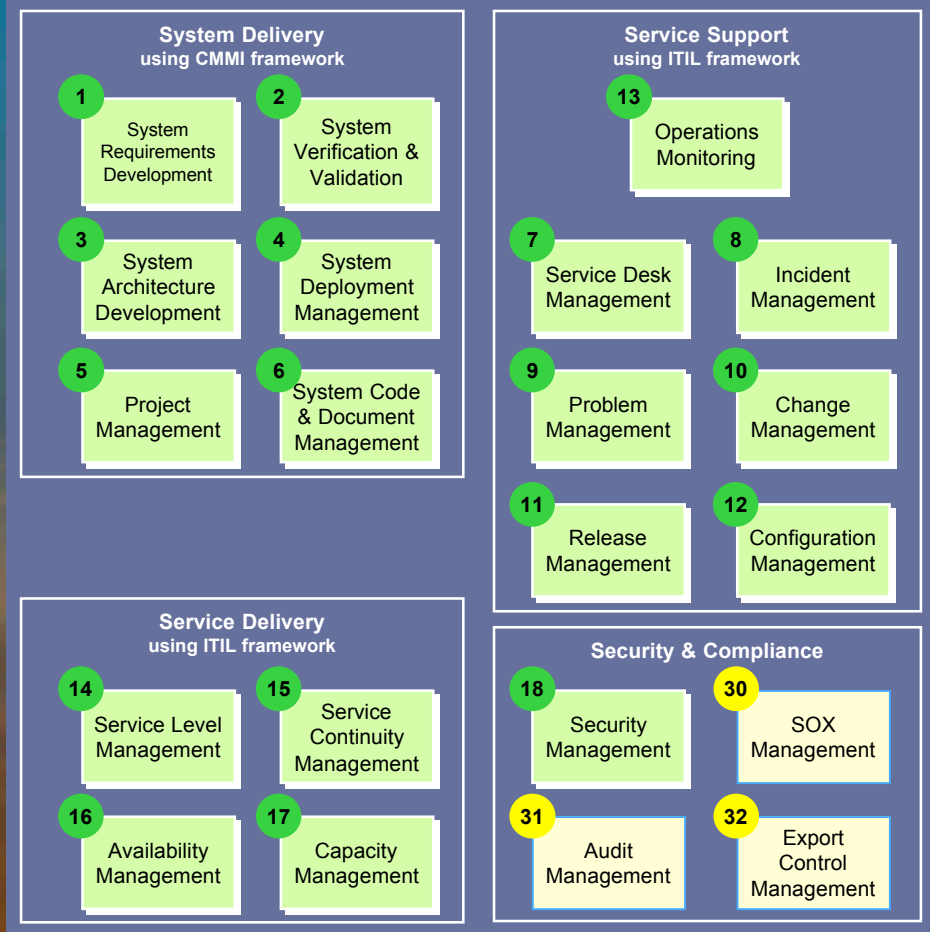


Standardize IT Processes

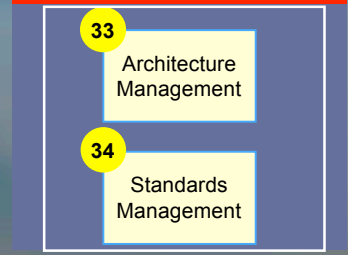
Manage Business Engagement

Measure Business Results

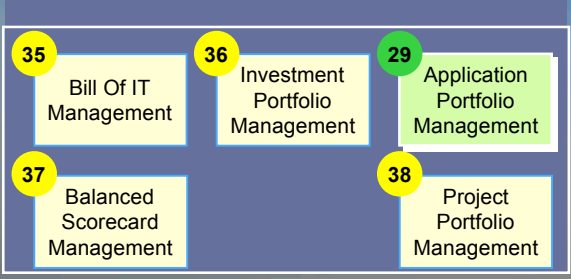
Create & Sustain Information Systems



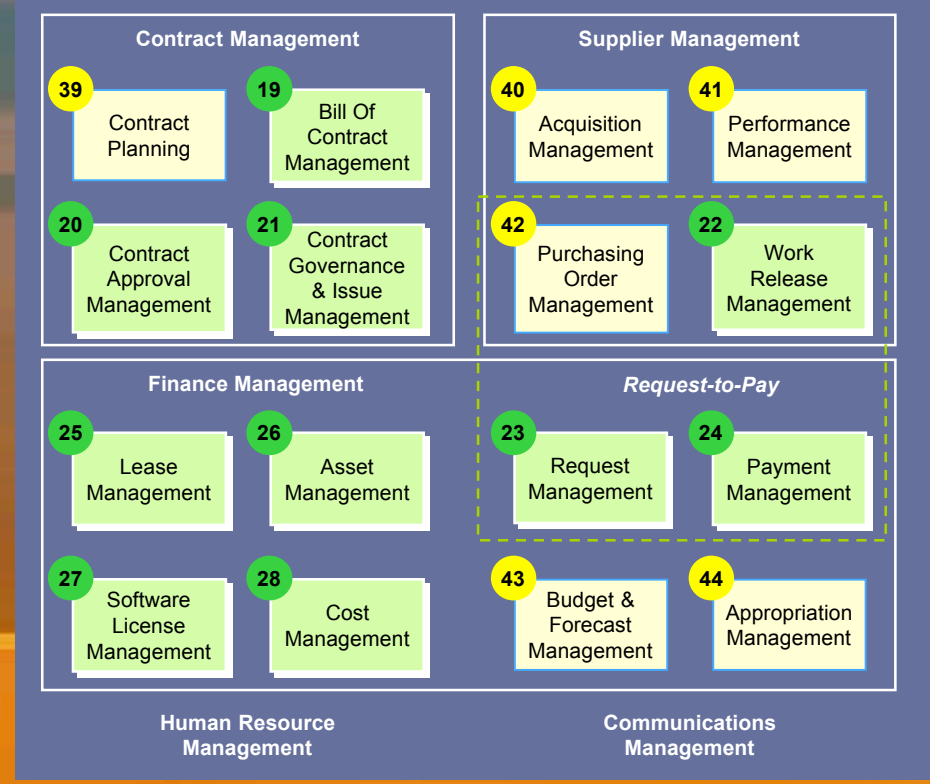
Manage Architecture & Standards



Strategic Planning



Management Enablers



G Key to Outsourced Model
Y Internally Focused

GM Challenges Using CMMI

CMMI does not effectively address acquirer needs:

- **Contains work not executed by the acquirer**
- **Does not address some required work**
- **Lacks precise definition of the acquirer-supplier relationship**



GM/SEI Joint Project: The Initial CMMI-A

- **Develop an Acquisition Model that conforms with the CMMI architecture**
- **Involve industry and government agencies in developing and piloting the initial CMMI-A**
- **Make the CMMI-A available for initial industry and government use in 2006**



Major Design Goals of Initial CMMI-A

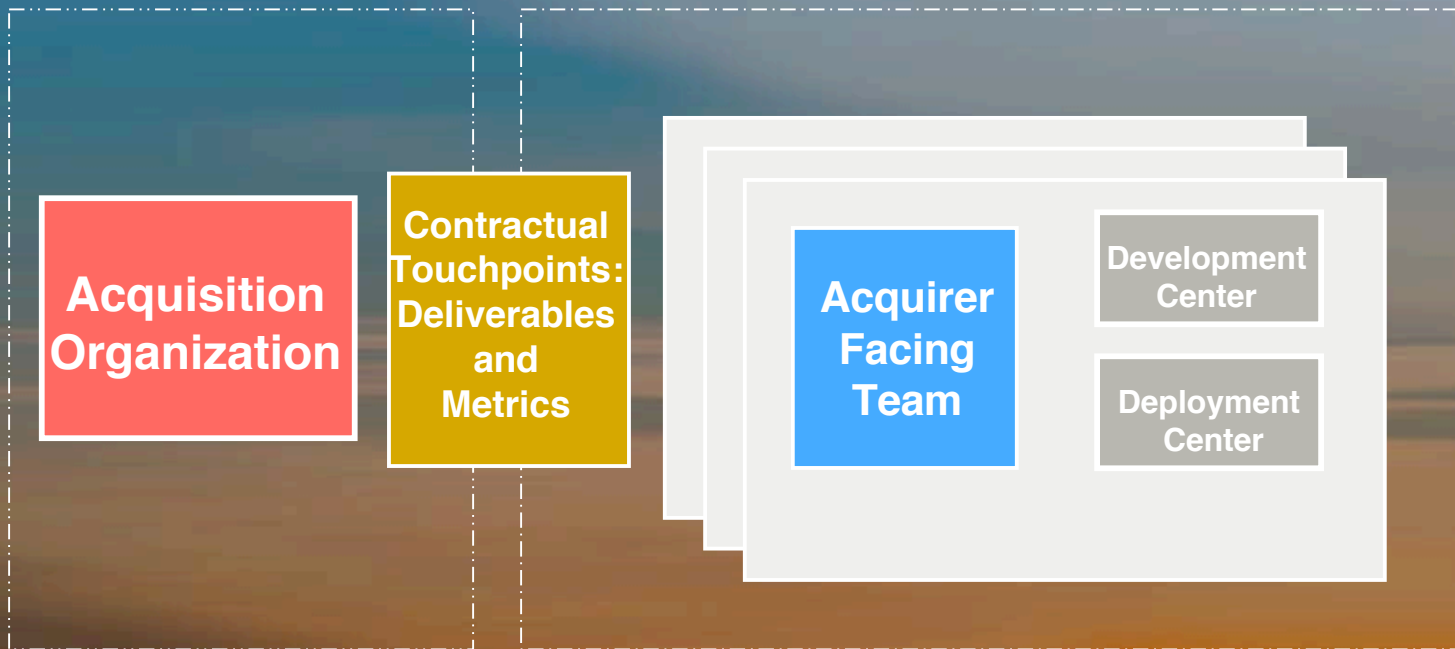
- Clarifies the acquirer-supplier relationship
- Defines minimum set of acquirer practices
- Provides a lean model
- Usable by government and industry
- Results in a complete, appraisable model



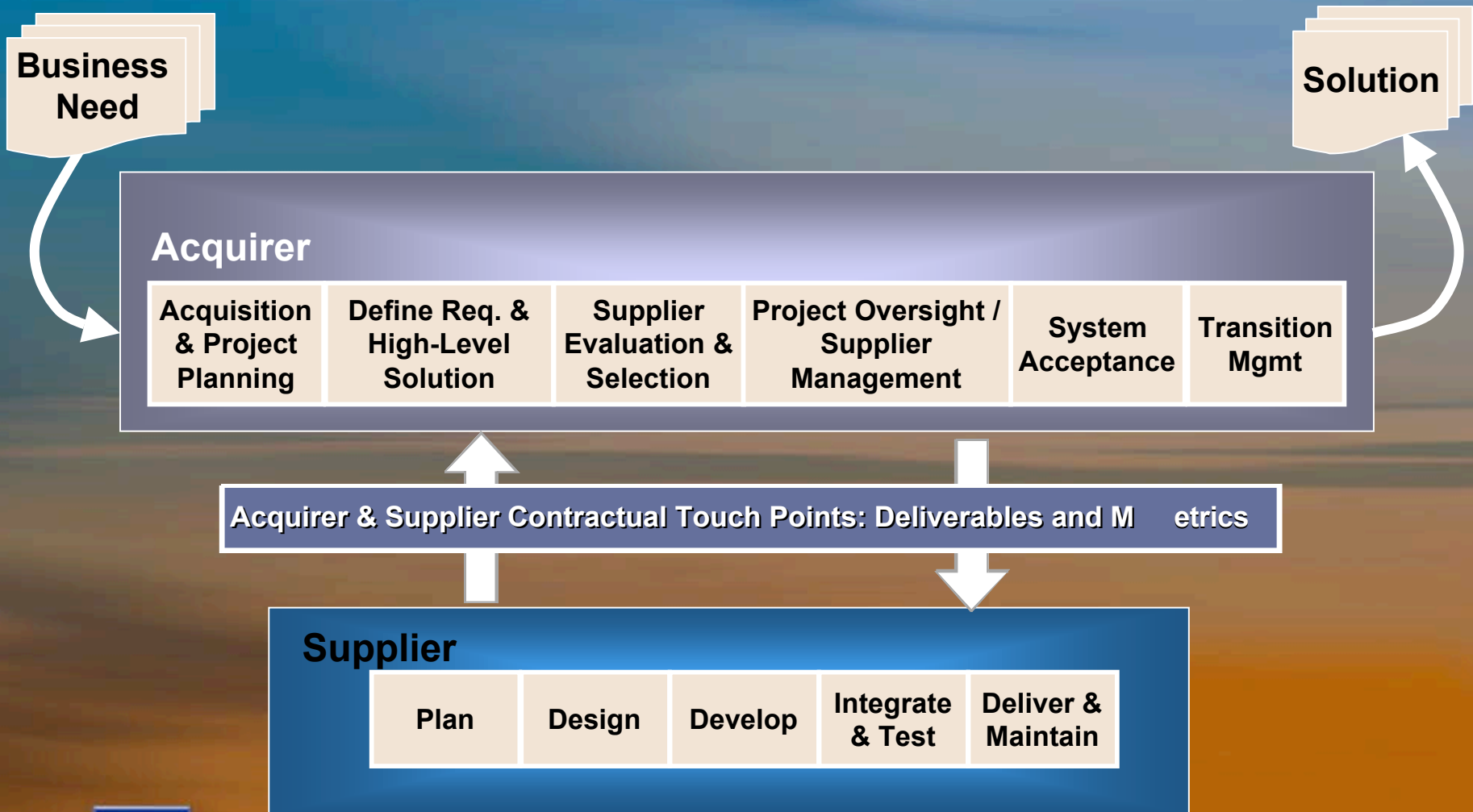
The Acquirer-Supplier Relationship

Acquirer

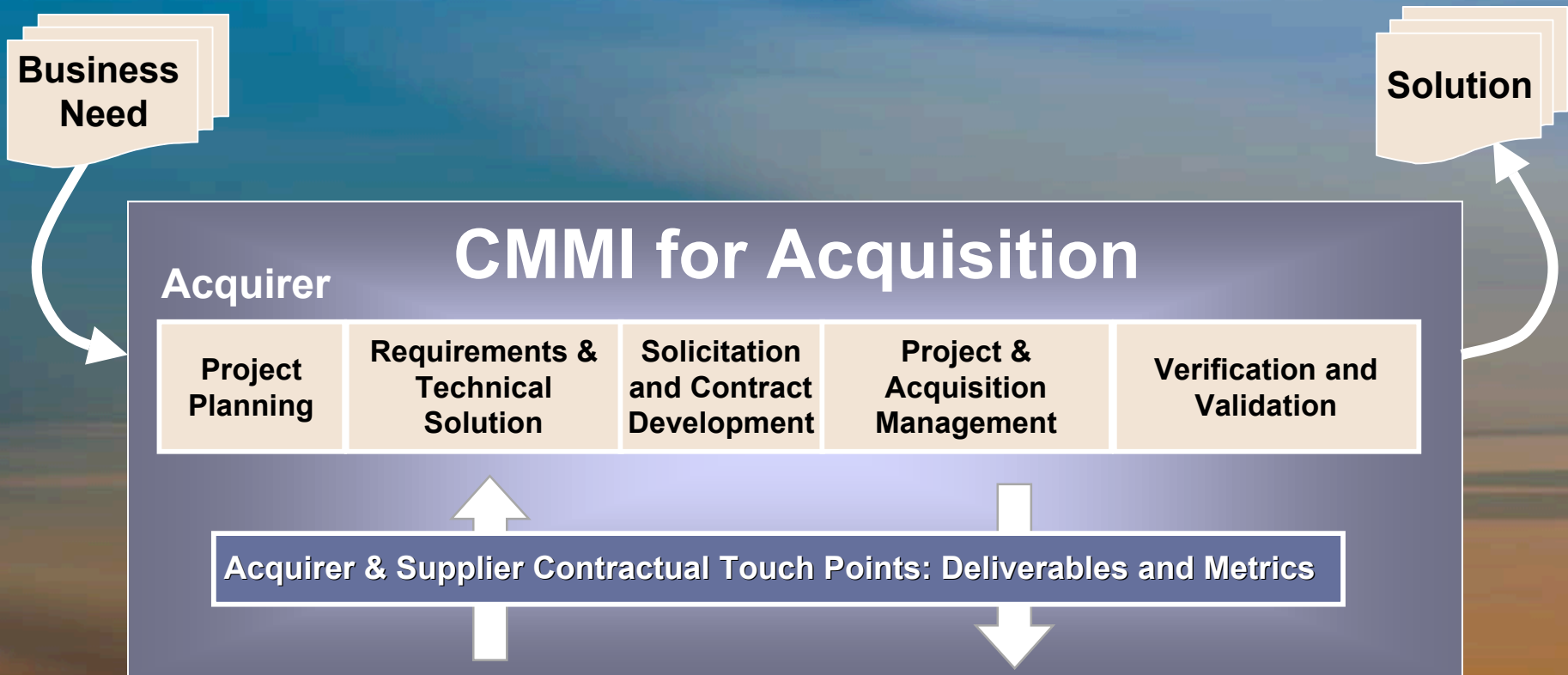
Supplier



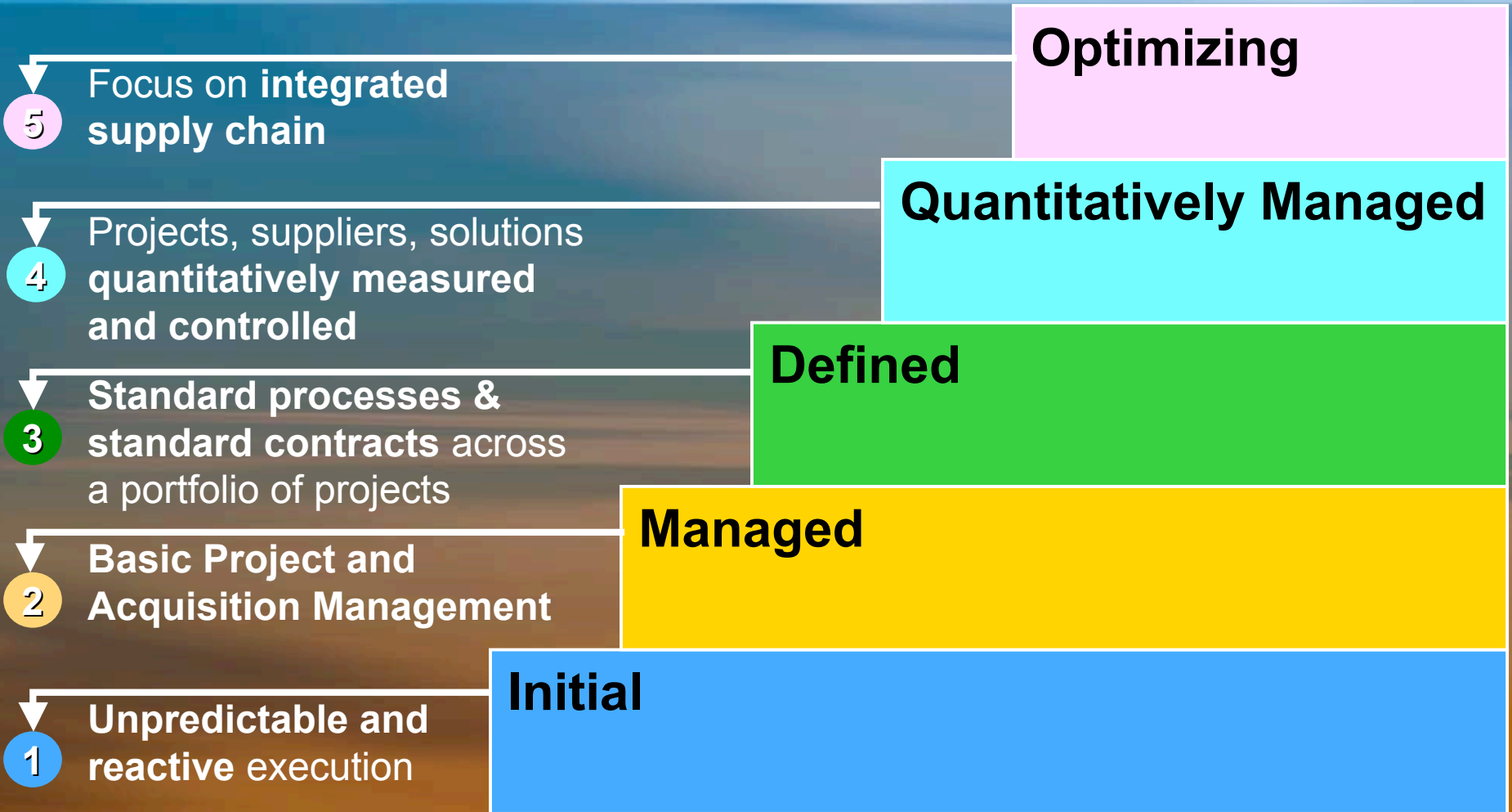
Minimum Set of Acquirer Practices



CMMI for Acquisition: A Lean Model



Maturity Levels for Acquirers



Next Steps

- **Release initial CMMI for Acquisition Model in May 2006**
- **Publish CMMI for Acquisition book with GM, industry and government examples in August 2006**
- **Pilot the initial CMMI-A with government and industry throughout 2006 and 2007**



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Reviewers

- Over 150 reviewers from more than 40 companies and government agencies

