

Break the Shackles

Early Success in Global Sourcing with CMMI-ACQ

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**Are you held hostage by your suppliers and customers?
CMMI-ACQ can help break the shackles.**



Breaking the shackles (Agenda)

- Manage requirements with discipline.
- Plan and manage your acquisition process.
- Select the right supplier.
- Manage the supplier relationship.
- Accept the product or service on your terms.
- Transition the product or service to operations and support.

Early Success – General Motors Global IT sourcing



First, some Acquisition Terms

Global sourcing

Procurement

Supply Chain Management

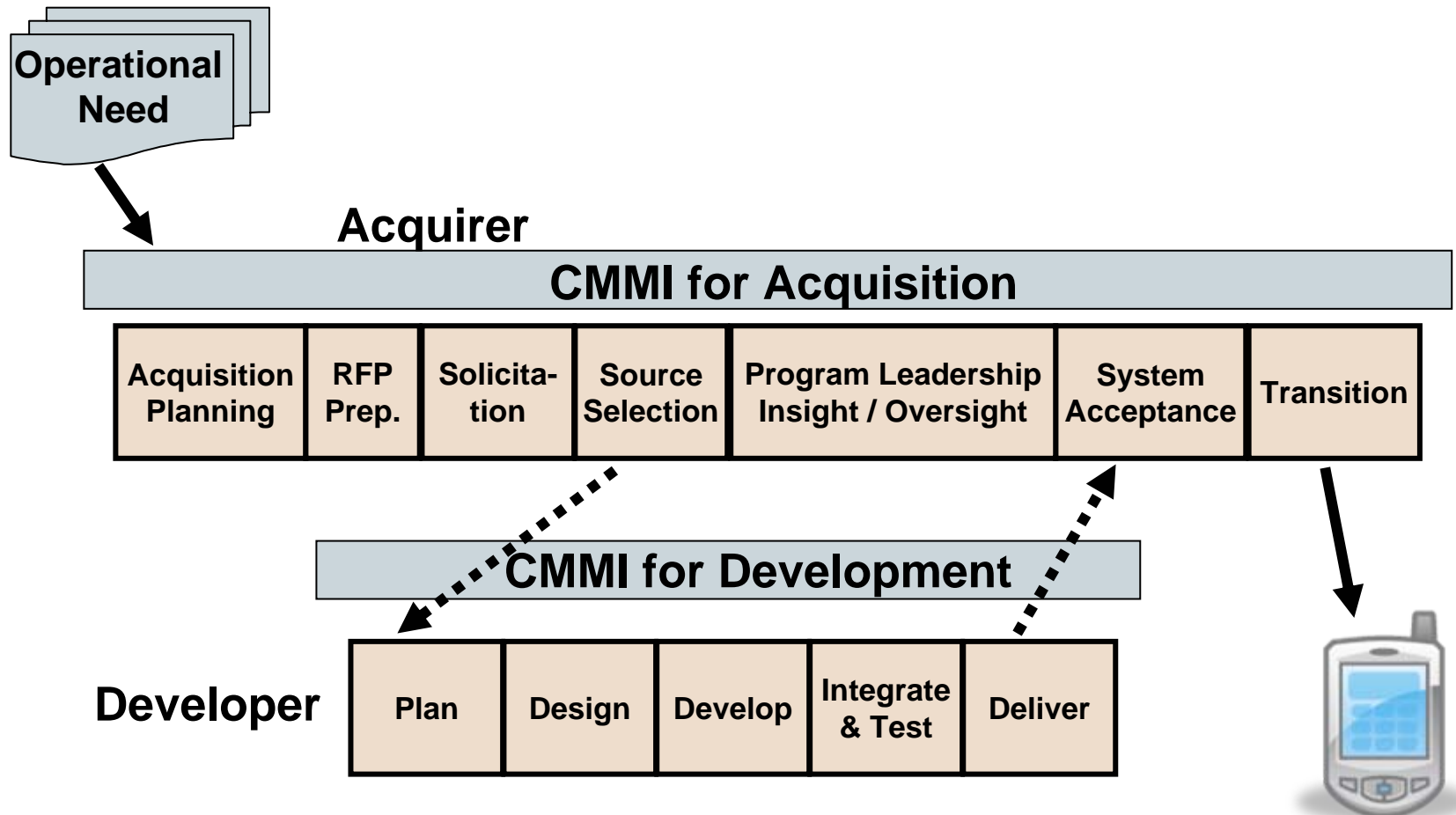
Outsourcing

Buying

...many others, but not Acquisition & Mergers

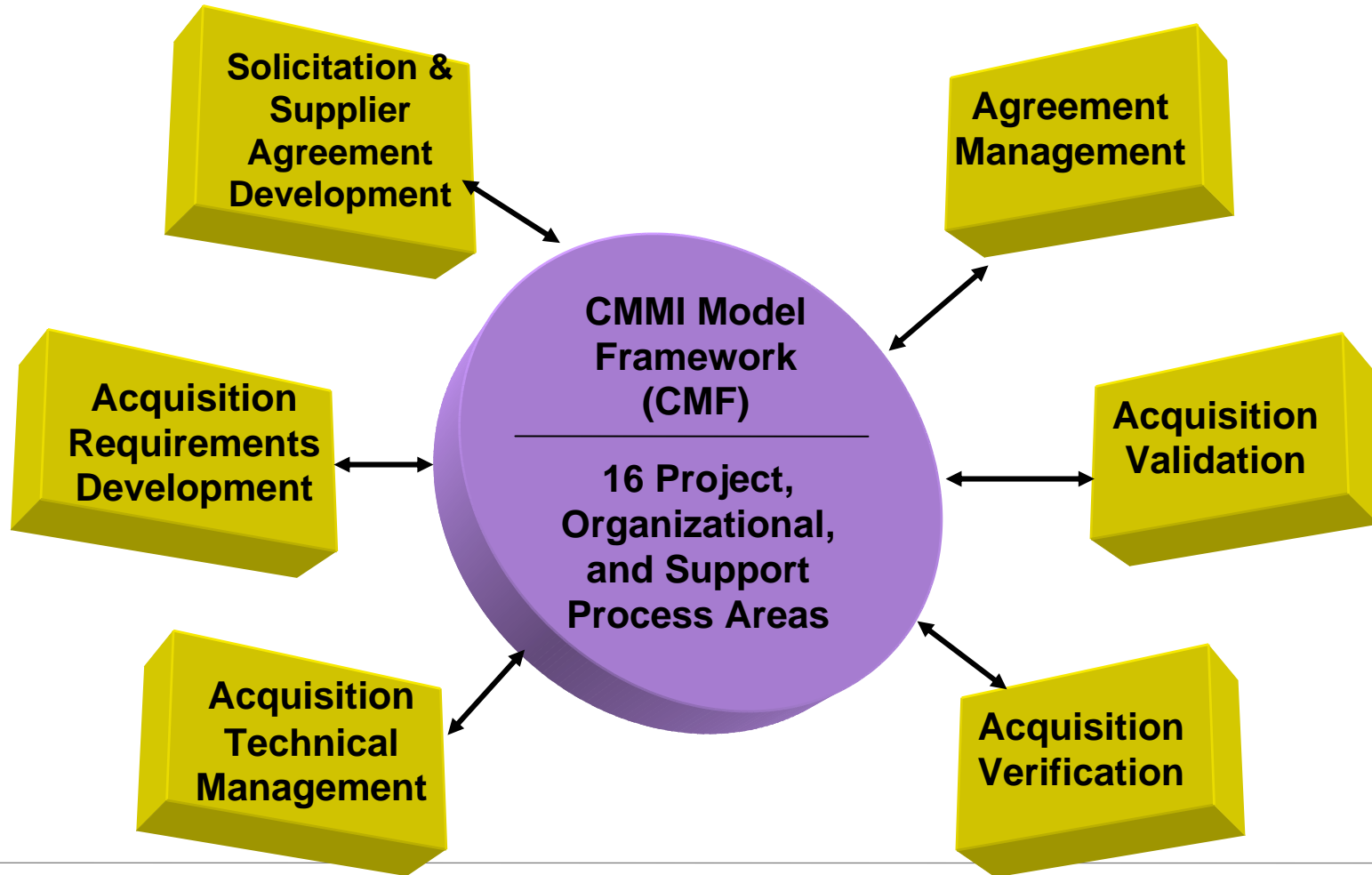


Acquisition Context



CMMI-ACQ v1.2

Acquisition Process Areas



Addressing the requirements situation - Acquisition Requirements Development

SG 1: Develop Customer Requirements

Stakeholder needs, expectations, constraints, and interfaces are collected and translated into customer requirements.

SG 2: Develop Contractual Requirements

Customer requirements are refined and elaborated to develop contractual requirements.

SG 3: Analyze and Validate Requirements

The requirements are analyzed and validated.

Then use Requirements Management to manage requirements and requirements changes throughout the life of the contract.



Acquisition Requirements Development - Summary

Acquisition Requirements Development includes

- Eliciting, analyzing, validating, and communicating customer and stakeholder needs, expectations, and constraints and interfaces
 - Establishing contractual requirements and allocating those requirements to contractual deliverables
 - Establishing operational concepts and scenarios
 - Analyzing and validating requirements and ensuring requirements are necessary and sufficient
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The Key to Planning – The Acquisition Strategy

- **Acquisition strategy** - Planning begins with the acquisition strategy that provides the framework for the acquisition project and its plans.
- **PP SP 1.1 Establish and maintain the acquisition strategy.**
- The strategy has the following attributes:
 - used to focus on specifying customer and contractual requirements that express customer value in the Acquisition Requirements Development process area practices.
 - is the business and technical management framework for planning, executing, and managing agreements for a project.
 - relates to the objectives for the acquisition, the constraints, availability of resources and technologies, consideration of acquisition methods, potential supplier agreement types, terms and conditions, accommodation of business considerations, considerations of risk, and support for the acquired product over its lifecycle.
 - reflects the entire scope of the project.
 - encompasses the work to be performed by the acquirer and the work to be performed by the supplier, or in some cases multiple suppliers, for the full lifecycle of the product



Acquisition Strategy Contents

<h2>Acquisition Strategy Considerations</h2>	Acquisition Approach	Modular Open Systems Approach
	Best Practices	
	Business Considerations	Product Support
	Capability Needs Summary	Program Structure
	Environment, Safety, Occupational Health	Relief, Exemption, and Waiver
	Human Systems Integration	Research and Technology Protection
	Information Assurance	
	Information Technology	Resource Management
	Integrated Test and Evaluation	Risk Management
	Interoperability	Systems Engineering
	Reference: https://akss.dau.mil/dag/Guidebook/IG_c2.3.asp#Table2	



Managing Your Stuff - Acquisition Verification

SG 1 - Prepare for Verification

Preparation for verification is conducted.

SG 2 - Perform Peer Reviews

Peer reviews are performed on selected work products.

SG 3 - Verify Selected Work Products

Selected work products are verified against their specified requirements.



Acquisition Verification - Summary

Verification includes

- Selecting work products for verification
- Establishing a verification environment
- Establishing criteria and procedures
- Preparing for and conducting peer reviews
- Analyzing peer review data
- Performing verification
- Analyzing verification results and identifying corrective actions



Selecting the right supplier - Solicitation and Supplier Agreement Development

SG 1: Prepare for Solicitation and Supplier Agreement Development

Preparation for solicitation and supplier agreement is performed.

SG 2: Select Suppliers

Suppliers are selected based on an evaluation of their ability to meet the specified requirements and established criteria.

SG 3: Establish Supplier Agreements

Supplier agreements are established and maintained.



Solicitation and Supplier Agreement Development - Summary

Solicitation and Supplier Agreement Development includes

- Developing and distributing a solicitation package
- Evaluating supplier responses to the solicitation
- Negotiation with potential suppliers
- Selecting supplier
- Establishing the supplier agreement



Agreement Management

SG 1 - Satisfy Supplier Agreements

The terms of the supplier agreement are met by both the acquirer and the supplier.



Agreement Management - Summary

Agreement Management includes

- Managing the supplier agreements
- Monitoring selected supplier processes
- Accepting an acquired product
- Managing supplier invoices



Acquisition Technical Management

SG 1: Evaluate Technical Solutions

Supplier technical solutions are evaluated to confirm that contractual requirements continue to be met.

SG 2: Perform Interface Management

Selected interfaces are managed.



Acquisition Technical Management - Summary

Acquisition Technical Management includes

- Selecting technical products for analysis
- Analyzing supplier technical solutions
- Performing technical reviews
- Selecting interfaces to manage
- Managing interfaces



Acquisition Validation

SG 1: Prepare for Validation

Preparation for validation is conducted.

SG 2: Validate Selected Products and Product Components

Selected products and product components are validated to ensure that they are suitable for use in their intended operating environment.



Acquisition Validation - Summary

Validation includes

- Selecting products for validation
- Establishing the validation environment
- Establishing procedures and criteria
- Performing validation activities
- Analyzing results and identifying issues



Transition to Operations and Support

Transition to operations and support includes the approach for introducing and maintaining the readiness, sustainment, and operational capability of the product(s) delivered by the supplier.

- PP SP 2.7 - Plan for transition to lifecycle operations and support for the product.
- PMC SP 1.8 - Monitor the transition to operations and support.

Typically, the supplier has a role in integrating and packaging the products and prepares for the transition to operations and support, including support for business user acceptance. The acquirer monitors supplier activities.



General Motors Global IT Sourcing

GM is using CMMI-ACQ as a basis for their global IT sourcing:*

- \$3 billion IT spend
- 7 Core Tier 1 vendors
- Hundreds of Tier 2 and Tier 3 vendors

Global IT market is \$2.13 Trillion, 75% spent in acquisition*

* General Motors SEPG 2008

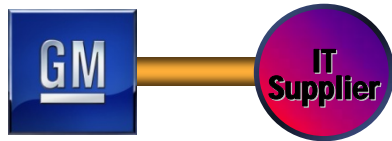


GM is Truly a Global Company

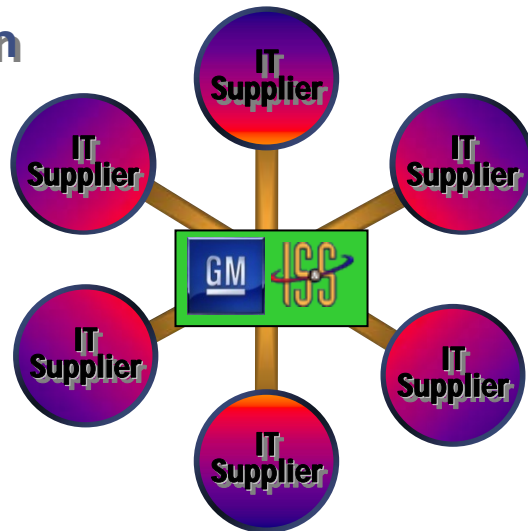
- 280,000 employees worldwide
- \$207 billion revenue in 2006
- Products sold in more than 200 countries
- Sold more than 9 million cars and trucks in 2006
- 181 Manufacturing facilities in 35 countries
- 14,000+ dealers in North America alone
- \$89 billion of direct materials purchased annually
- 14 million pounds of material received daily
- Approximately 5,000 parts in each vehicle



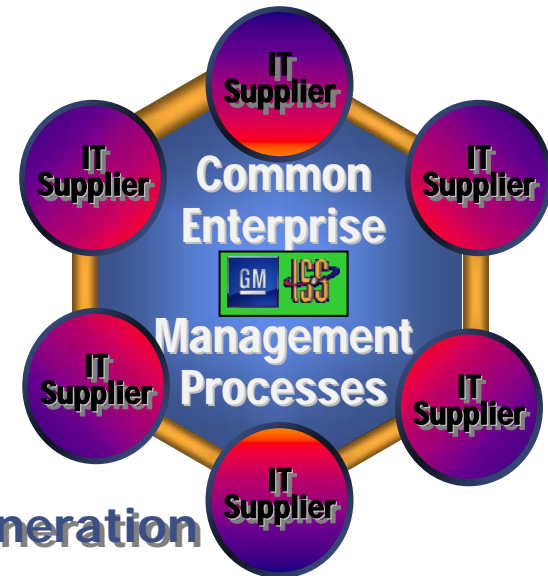
Evolution of IT at General Motors



**First Generation
1984-1996**



**Second Generation
1996-2003**



**Third Generation
2003→**



Current IT Models Focused on the Developer – not the Customer

- ✓ CMM, CMMI
- ✓ SPICE
- ✓ IEEE
- ✓ COBIT
- ✓ ITIL

General Motors partnered with:

- Software Engineering Institute
- US Department of Defense
- NASA
- Industry Leading Suppliers

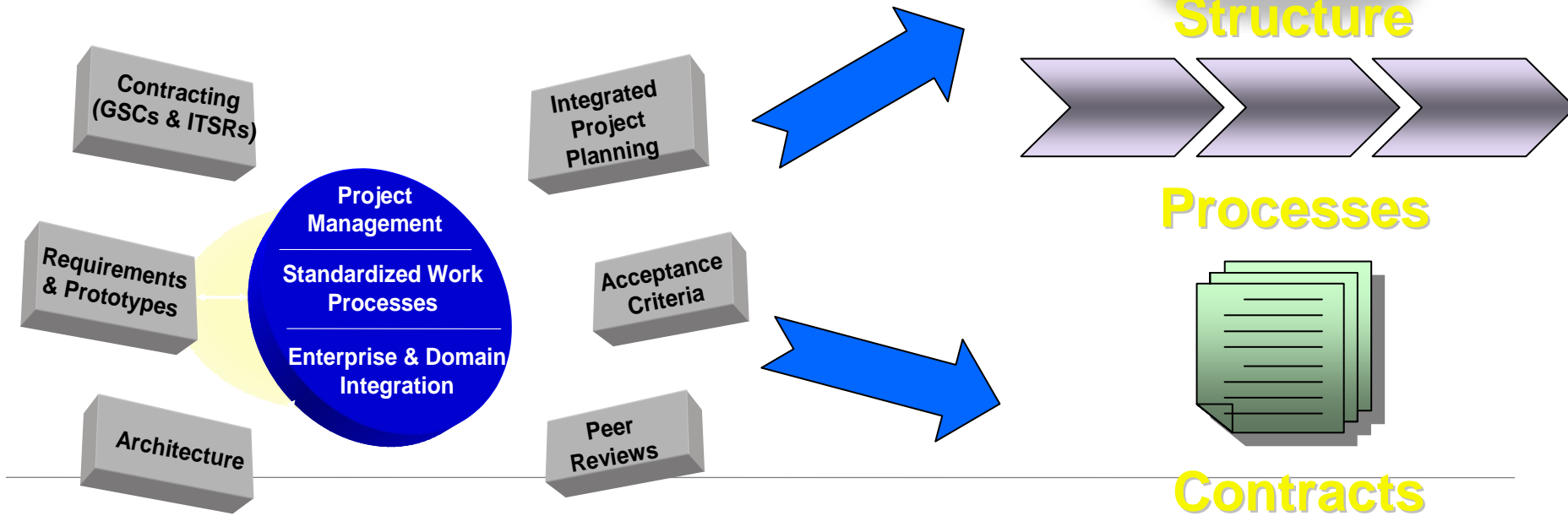
To develop a maturity model for the Customers of IT Sourcing



CMMI-ACQ for GM

➤ Implementing the model requires structural change and global standardization

- ✓ Organizational Structure
- ✓ Common Global Processes
- ✓ Common Service Agreements



GM IS&S: Strategic Hub for Technology



Global Implementation

- **Global Standardization is key to GM's success**
 - ✓ **Global Training on Processes**
 - ✓ **Global Process Coaches**
 - ✓ **Global Management and Architecture meetings**
- **Regular Improvement driven by GM users and suppliers**
 - ✓ **Process Releases**
 - ✓ **Contract Updates**



Results

➤ GM has realized significant benefits from the 3rd Generation IT Sourcing Model and CMMI-ACQ

- ✓ **Customer Intimacy**
- ✓ **Control of Strategy, Architecture, and Standards**
- ✓ **Innovation from our Supplier Base**
- ✓ **Low IT cost per vehicle**
- ✓ **Less time “RFP-ing” – more time solving IT problems**
- ✓ **Standardized work - globally**



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