“Achieving Business Results through Program Management”
Russ Martinelli and Jim Waddell
Discussion Topics

• Demystifying Program Management
• Delivering the “Whole Product”
• Why Program Management?
• The Role of the Program Manager
• Case Study – Intel Xeon® Products
• Summary
Context of Discussion

High-technology Product Development

Based upon the book “Program Management for Improved Business Results”
Demystifying Program Management

Program Management:

- The coordinated management of interdependent projects over a finite period of time to achieve a set of business goals”

Source: “Program Management for Improved Business Results”
Program and Project Management

Program Management

• Strategic in nature
  » Focused on business success
  » Ensures work remains feasible from a business perspective
• Horizontal management
  » Cross-project coordination
  » Delivers integrated product
• Concerned with cross-project risk
  » Probability of program and business success
• Ensures consistent use of common processes, tools and metrics by all project teams
• Breadth of skills required
  » Business, customer/market, leadership, project management skills

Project Management

• Tactical in nature
  » Focused on execution success
  » Ensures work generates deliverables on time, budget, and fully functional
• Vertical management
  » Single project coordination
  » Delivers product elements
• Concerned with single-project risk
  » Probability of project and technical success
• Ensures effective use of processes, tools and metrics used on a single project
• Depth of skills required
  » Project management and functional-specific technical skills
Delivering the “Whole Product”

Project Management
Responsible for delivery of individual elements of the product to the program

Program Management
Responsible for delivery of the whole product to the market

Program Management Academy
Questions?
Why Program Management?

- **Misalignment of Strategy and Execution**: Aligns execution to strategy.
- **Lack of Business Focus**: Focuses on business success of the program.
- **Increasing Product and Process Complexity**: Manages complexity by design.
- **The World has been Flattened**: Enables highly distributed collaboration.
 Aligning Execution to Strategy

- **Strategic Management**: Define strategic business goals
- **Portfolio Management**: Select, prioritize & resource programs to achieve goals
- **Program Management**: Cross-project management and delivery of whole product
- **Project Management**: Plan and execute delivery of individual elements of the product
- **Team Execution**: Develop the components and technologies of individual elements

**Strategy**

**Execution**
Focusing on Business Success

• Program management provides a single point of accountability for specific program business results

• Program management aligns functional activities to business objectives

• The program manager manages the business elements of a program
Managing Complexity

- Historically, program management was established to help manage the complexity of large, multi-faceted undertakings.
- Types of complexity involved in developing new products:
  - **Program/project size:** Interdependent elements are increasing.
  - **Technical:** Demand for product integration, new technologies, new end-user usage models is growing.
  - **Structural:** Geographic dispersion, multi-cultural, multi-company, and virtual team structures are now common.
  - **Environmental:** New emerging markets, increased competitive threats, time-to-market pressure.
- As complexity increases, so does the need for effective program management practices.
Managing Distributed Collaboration

- Knowledge work continues to be disaggregated, distributed, produced and re-assembled across the globe
- Pressure is building on businesses to continuously improve horizontal collaboration to remain competitive
- A high degree of collaborative skill needed to mold the work of a team of specialists across multi-geographies into a successful integrated, whole-product solution
- Companies utilizing a program management model for product development have succeeded in managing highly distributed development efforts
Managing the Business
The program manager serves as the “GM Proxy” for the product development effort

Leading the Team
Program management greater leadership skills than project management
• Responsibilities span from product concept, to product launch, to product phase out
Program Mgr Core Competencies

Customer & Market
- Knowledge of customer needs and application
- Commitment to customer satisfaction
- Broad market knowledge
- Champion for quality
- Technical knowledge

Leadership
- Program vision
- Team building
- Influencing and delegating
- Decision-making
- Effective communication
- Prioritization of work

Process & Project Management
- Company & program processes
- Life cycle management
- Project management basics
- Stakeholder management

Business & Financial
- Business fundamentals acumen
- Ability to think strategically
- Industry knowledge
- Political savvy and effective use of network
Questions?
Case Study: Intel Xeon® Processors

Strategic Goal:
Increase gross margin by:
• Developing a line of microprocessors specifically designed for workstation and server products

Strategies:
1. Design, develop and deliver the microprocessor line
2. Design, develop and deliver enabling workstation products
3. **Design, develop and deliver enabling server products**
Case Study: Intel Xeon Processors

Xeon® server product portfolio and roadmap developed
# Example Server Roadmap

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Case Study: Intel Xeon Processors

Project managers focused on planning, executing and delivering the individual elements of the server product.

Individual contributors developed the components and technologies of the server elements.
Delivering the “Whole Product”

Program Management
Responsible for delivery of the whole product to the market

Project Management
Responsible for delivery of individual elements of the product to the program

Motherboard
Memory
Enclosure
Software
Manufacturing

C++
Intel C++ Compiler

Program Management Academy

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Case Study: Intel Xeon Processors

Program management did *not*:  
- create the strategic goals,  
- plan and execute the product elements

Program management *did*:  
ensure that the business goals were attained by delivering the integrated server product

Accomplished through effective cross-project management and collaborative integration of the elements
The Server Program Core Team

Program Manager

Hardware Project Mgr
  Support Project Mgr

Software Project Mgr
  Marketing Engineer

Manf'g Project Mgr
  Application Engineer

Enclosure Project Mgr
  Finance

Validation Project Mgr
  Quality Assurance

Test Project Mgr
Cross-project Management

The Integrated ‘Whole’ Product

Circuit Board Deliverables
Enclosure Deliverables
Software Deliverables
Manufacturing Deliverables
System Test Deliverables

Program Management

Define
Plan
Implement
Launch
Sustain

Project Management

Cross-Project Deliverables

Circuit Board
Enclosure
Software
Manufacturing
Memory
Summary: Delivering Business Results

Aligning execution to strategy

Delivering the whole product to achieve the business goals!

Focusing on the business of product development

Effectively managing complexity and collaboration
Final Questions?
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Back-up
The Software Project Team

Software Project Mgr

Operating System Team Lead
- OS Specialist
- OS Specialist
- OS Specialist

Firmware Team Lead
- FW Specialist
- FW Specialist

BIOS Team Lead
- BIOS Specialist
- BIOS Specialist

Software Drivers Team Lead
- Driver Specialist
- Driver Specialist
- Driver Specialist

Team Execution

Cost/Schedule/Quality Scope and Features Deliverables
References

1. Program Management for Improved Business Results
   Dragan Z. Milosevic, Russ Martinelli, James M. Waddell
   ISBN: 0471783544
   Wiley & Sons publisher, Hoboken, NJ