Implementation of a Product Development Process

IFAS Mechanical Harvesting Symposium
April 3, 2012
**Oversight Team**  
*Directional Mgmt of Entire Portfolio*

- Approves projects
- Sets overall portfolio funding
- Outlines yearly direction for the company

**Leadership Teams**  
*Detailed Mgmt of Products*

- Manages portfolios (by market)
  - Cost
  - Forecasts
  - Budgets
  - Product Schedules
  - Yearly Maintenance
  - Product Improvements
- Responsible for any ideas, improvements, or solutions for their market
- Reviews product issues, financials, and project schedules with the Oversight Team
- Leads meetings with Market team to manage their products
- Works closely with Product Development teams working on their products to discuss features, financials, customer requirements, and schedules

**Project Core Teams**

- Develops and manages product development projects
  - Budgets
  - Cost
  - Resources
  - Schedule
  - Verification and Reliability
- Cross functional teams responsible for developing approved projects from inception through production
Work Pipelines

Stakeholders:
Customers
Sales
Marketing
Shipping
Service
Parts
Tech Pub
MFG
Purchasing

Support Eng.
Shop Support
NMR's
ECR's
Field Incident reports
Continuous Improvement
Quality Improvement

Application Eng.
Product Maintenance
Model Year Changes
Sales Specials
VOC integration
Leadership Team support

New Product Dev.
Technology Research
New Product Development
Field Validation

Product Manufacturing
Overview

Oversight Team Reviews

1. Project Selection
   - Strategic Fit

2. Product Definition
   - Good Start

3. Product Development
   - Proto Build

4. Product Validation
   - Pilot Build

5. Product Launch

6. Continuous Improvement

Leadership Team Reviews
Phase 1

Project Selection

- Focus on selecting the right project based on opportunity

Key Deliverables

SWOT Analysis
Customer Requirements
Tier Proposal
Discounted Cash Flow
Phase 2

Product Definition
– Focus on product requirements and project planning
Phase 3

Product Design
– Focus on detailed designs and developing prototypes

Key Deliverables
- Detailed Designs
- Test Plans & Cases
- Vendor Selection
- Market Launch Plan
- Machine Prototypes
Phase 4

Product Validation
– Focus on iteratively testing prototypes & stabilizing design

Key Deliverables
- Tests Results
- Production Tooling & Fixtures
- Final Design & Drawings
- Initial BOM
- Operators/Parts Manuals
- Marketing Materials
- Initial Pilot Machines
Phase 5

Product Launch

Focus on product release & field support of pilot build units

Key Deliverables
- Assembly Docs
- Service Training
- Final BOM
- Lessons Learned
- VOC
Phase 6

Continuous Improvement

– Focus on incremental improvements to machines

Key Deliverables

Model Year Change Requests

Leadership Team

Review VOC
Review Field Performance
Review Business Case Results
Identify CI & Cost Opportunities
Assemble Model Year Changes

Model Year Cadence
Further Information

- Product Development and Management Association, www.pdma.org
- Smith, Preston G. and Reinertsen, Donald G. “Developing Products in Half the Time.”