Medtronics

15.912
Rebecca Henderson, MIT
“Best Practice” in putting strategy into practice

- Clear, committed leadership
- Well articulated strategic goals
  - “He cleaned up the front end…”
- Coherent management philosophy
- Measures and incentives
- Processes and practices
- A sense of urgency

- That reinforce each other
A coherent management philosophy

- Commitments are sacred
- Create a sense of urgency by focusing on the customer
- Productivity leads to happiness, not the other way around
- Management means responsibility, not status
- You only get what you measure
- Focus on market share

- Why might a coherent philosophy be important?
Measures

Focus

- Speed
- Cost
- Innovativeness
- Product Quality

Measure

- Cycle time
- Fully allocated product costs
- Product performance relative to competitors
- Field performance

Note that measures are balanced against each other. Note also that other measures may be appropriate to capture each “focus point” in other contexts.
Processes and Practices

- Speed
  - “Being fast eliminates so many other problems…”
  - Clear product definition process, rooted in strategy

- Platform strategy
  - Leverage technology across the range
  - Clearly differentiate technology development from product development

- Project documentation

- Phase definition

- Rhythm

- Market inputs
The innovation funnel

Phase I  Phase II  Phase III  Launch
Before: Medical Products Co.

Process Changes

New Core Process
- ALPHA
- WATER
- EARTH
- FIRE
- CALIFORNIA
- NEW YORK

Next Generation Process

Single Dept. Upgrade

Tuning and Incremental Improvement

No Change

Product Changes

New Core Product

Next generation of Core Product

Add-Ons and Enhancements

No Change

B-THROUGH / PLATFORM

DERIVATIVE / CPS
• Company makes an automated diagnostic system that contains three components - electro optical hardware, software and a disposable panel for bio material.

• A lot of derivatives - all small, on all three system components.

• Derivatives character was aimed at increased functionality and features, which was counter to what the customer wanted. They were giving them “more bells and whistles”.

• Not a single new platform in 7 to 8 years.

• Had four very small efforts designed to explore “next generation” 21st Century technologies - while competitors were investing 100s of millions of dollars.

**Transition to Next Slide:**
• Within one year of implementing, the company’s product development restructuring process had the following effects...
After: Medical Products Co.

**Product Changes**
- New Core Process
- Next Generation Process
- Single Dept. Upgrade
- Tuning and Incremental Improvement
- No Change

**Process Changes**
- ADVANCED DEVELOPMENT
- New Core Process
- Next Generation Process
- Single Dept. Upgrade
- Tuning and Incremental Improvement
- No Change

**B-THROUGH / PLATFORM**
- ALPHA
- GAMMA
- BETA
- DELTA
- DELTA II
- MARS
- ZEUS
- SIGMA
- DELPHI
- ATLANTIS
- ROME I
- ROME II
- ROME III
- ROME IV
- LEO
- ROME V
- ROLAND
- CLEO
- OAK
- CEDAR
- PINE

**DERIVATIVE / CPS**
- DELTA
- GAMMA
- BETA
- DELTA II
- MARS
- ZEUS
- SIGMA
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- PINE
• Eliminated all but one of the breakthrough projects, and subsequently eliminated all breakthroughs.
• Joint ventures between corporate parent to share development resources.
• Part of a joint corporate effort to think about next generation technologies.
• Eliminated a lot of derivatives and feature enhancements that weren’t adding value to customers.
• New partnered platform project:
  • Outside companies are doing the hardware and software components.
  • The client company is doing the bio components.
  • Sufficient amount of resources have been allocated to ensure that the project is adequately staffed to meet all project requirements.
• Focus Development efforts to be in line with core competencies and establish alliances to do all other tasks outside their own business.

**Results:**
• Cut R&D spending from $65mm to $35mm.
• By focusing their innovation efforts they saw more product launches in 1993 than 1992, even though they had fewer projects and fewer dollars.

**Transition to Next Slide:**

• The same situation was also evident in a Scientific Instruments Manufacturer.
The Bottom Line

• “People ask us what the secret is, to make a development organization work effectively. I tell them there aren’t any magic bullets that kill the problems. It’s just discipline. You need to do what you say needs to be done. You need to be in it for the long haul. There are no quick fixes.”

• “It’s interesting how many people leave these conversations and then go off in search of an easier answer from some guru somewhere. It’s amazing that the obvious isn’t so obvious