

# New Product Development

A reliable stream of new products or services is essential for the vitality of any organization. To assure a *reliable* stream, you'll need a robust New Product Development (NPD) *process*. "But wait," you say, "new products are, by definition, *different*. They don't lend themselves to the constraints of a process." So yes, the process must encourage innovation and differentness, but experience has shown that without a solid NPD process, you have three major problems:

- ❖ Development times are way too slow.
- ❖ You'll have too much chaos in your engineering group. Inventing new products is, by its very nature, chaotic and unpredictable. That's a *good* thing. But too much chaos is damaging.
- ❖ You get caught at the end of the cycle with a fatal problem that you could have caught earlier with a good checklist. You have to start over.

Four aspects of a typical NPD Process, from 50,000 feet:

## Phases

Each phase has a different *objective* and a different *feeling tone*. An example of a simple NPD process with three major phases:



## Phase Exit Criteria

These are written lists of the completion requirements for each phase. For example, to exit the Investigation Phase you might require

- ❖ A project schedule with a Gantt Chart
- ❖ A specification sheet approved by the Marketing Department
- ❖ A target price for the new offering
- ❖ A working prototype, also called proof of concept, that passes certain critical tests
- ❖ ...there might be a dozen or two more items like these.

The beauty of these criteria is that they provide marching orders for your development team. Absent exit criteria, experience shows a lot of wandering around!

## Project Management (PM)

An absolute must for NPD. Classical "Waterfall" PM works great for most hardware and service situations, and Agile PM (sometimes called Scrum) for purely software situations.

## Oversight

For example, a quarterly top-level meeting to review progress on all your NPD projects, shift resources around as needed, and evaluate new ideas that might turn into NPD projects.