Product Integration with Six Sigma

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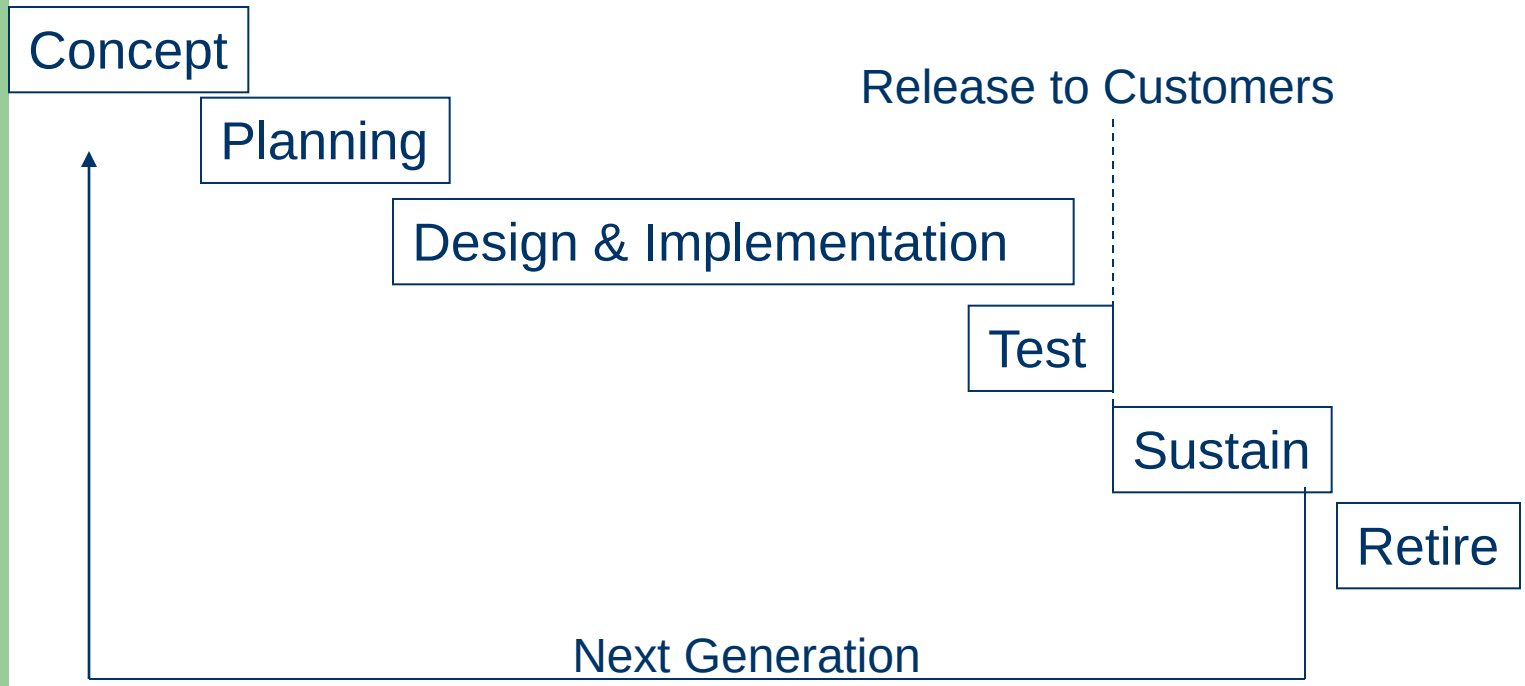
Traditional Product Development Processes



Enforcement and Implementation

- Standard set of documents
- Team structure

1. Implementation team
2. Governing Team

- Tollgates

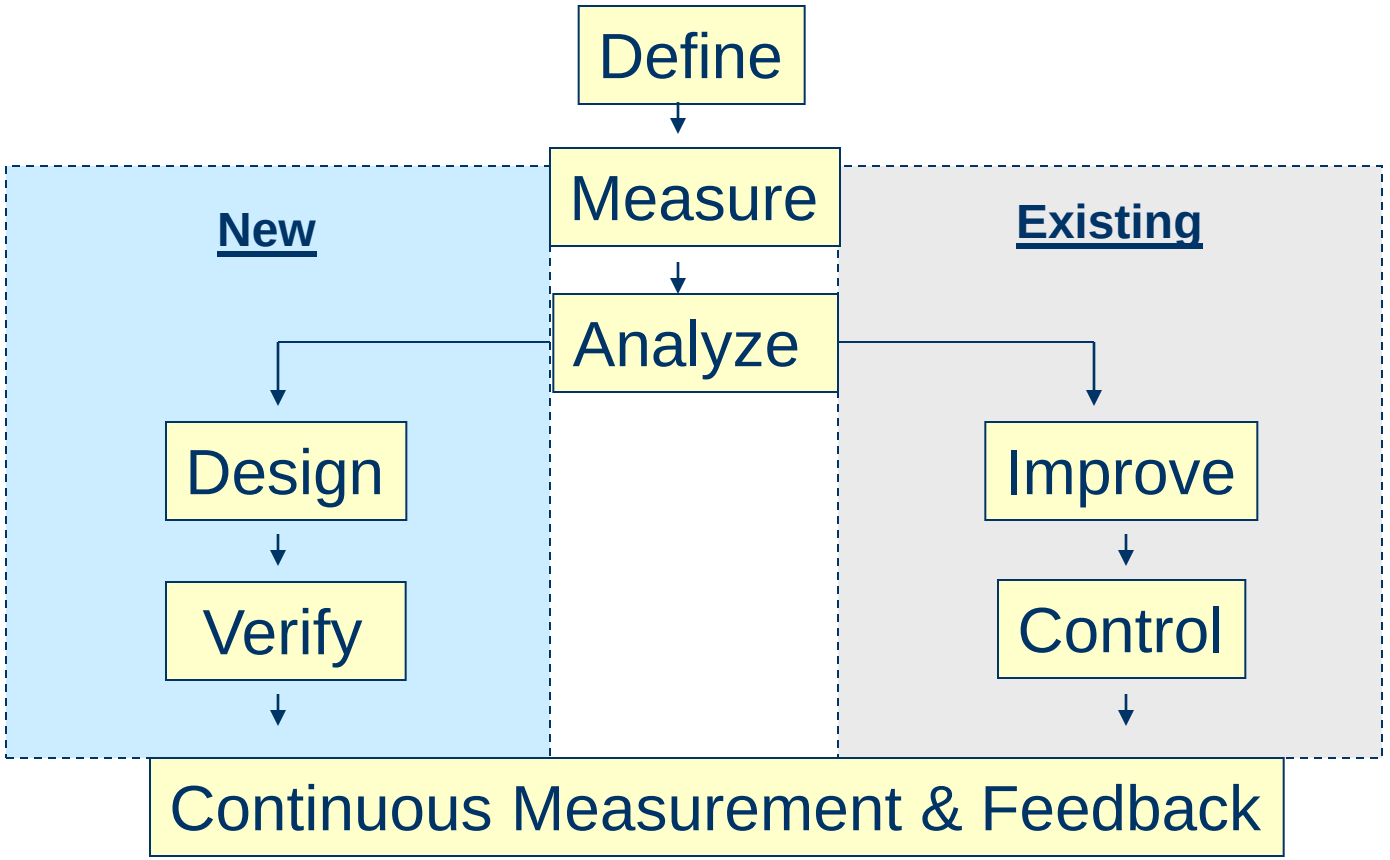
Process Issues

- Final customer is the “only” customer.
- Does not address the entire system and how the product will exist in the system.
- Lack of analytical methodologies and metrics.
- May not be “repeatable”.
- Huge potential for “marketing” or “engineering” to dominate.
- Over-estimated ROI.

Six Sigma

- A “structured” methodology which focuses on measuring and reducing variations in business processes and eliminating waste.
- Focused on product /process improvement & development.
- Based on satisfying both internal and external customers.
- Data focused. The eventual target is to reduce defects to 3.4/million opportunities.

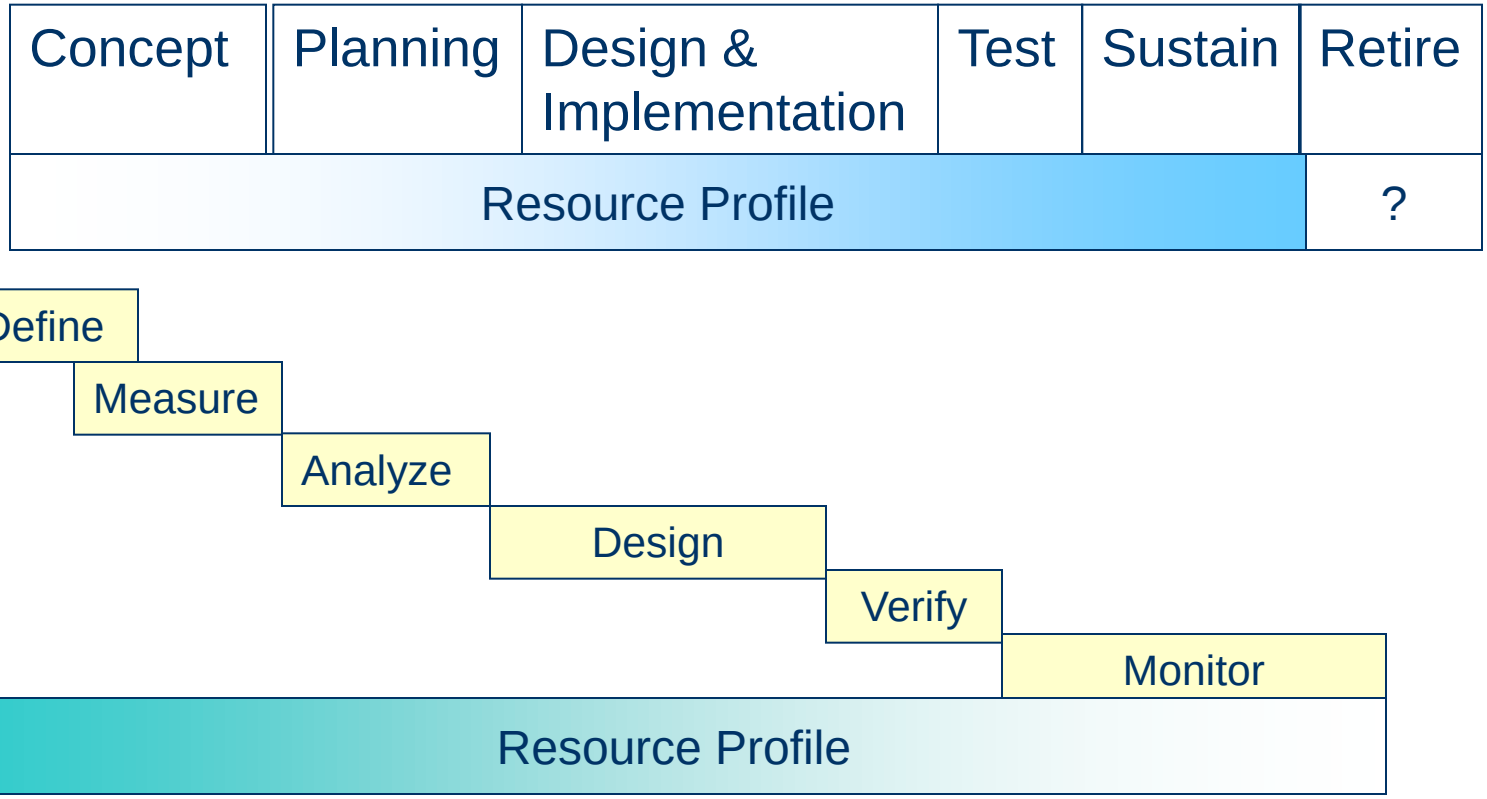
Description



Description

- **Define-** Problem scoping.
- **Measure-** Customer & User Needs, needs to CTQ conversion, identification of gap, create measurement system
- **Analyze-** Determine critical design factors, generate design options
- **Design-** Optimize X's, error proof
- **Verify-** Validate measurement system, verify performance
- **Monitor-** Long term measurement.

Sigma Vs. Product Development Processes



Benefits Leading to a Superior ROI

- Takes a systems view of the customer- Ops is as much a customer of marketing as the final customer.
- Focuses resources upfront.
- Data collection is focused on the full value chain.
- Creates a measurement system upfront.
- Uses “well-developed” tools to collect and analyze data.

Benefits

- Structured approach.
- Repeatable.
- Measures performance in the system before the release.
- Applicable to a wide variety of projects.
- Works well within the framework of organizational processes.

Summary

- Use in conjunction with existing processes.
- Apply to high impact areas.
- Line managers to implement Sigma.
- Train personnel on the project.
- Use “Money-Belt” & “Black-Belt” skills.