A BEST Case:
Forecast Improvement Project

A Tale of Two BUs

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Green Belt Project

- Scope:
  - EUR Region
  - Two Business Units with distinct supply chains
- Goal: Accuracy improvement by Q3 2013
- Workshop in Nov 2013
- Results to Date
  - BU1: Forecast accuracy since January 2013 very stable and upward trending
  - BU2: Forecast accuracy since January 2013 was relatively stable but below target. Experienced a significant drop in April and a downward trend from August

Focused Problem Statement

- For Edwards products sold in Europe, the demand forecasting accuracy for commercial and non-commercial products is less than the corporate goal which leads to:
  - Back Orders
  - Diminished customer service satisfaction
  - Excess inventory
  - High expedited shipping costs

- Metric: Forecast Accuracy (Lag 2)
  - Bias was not an objective metric but a diagnostic metric

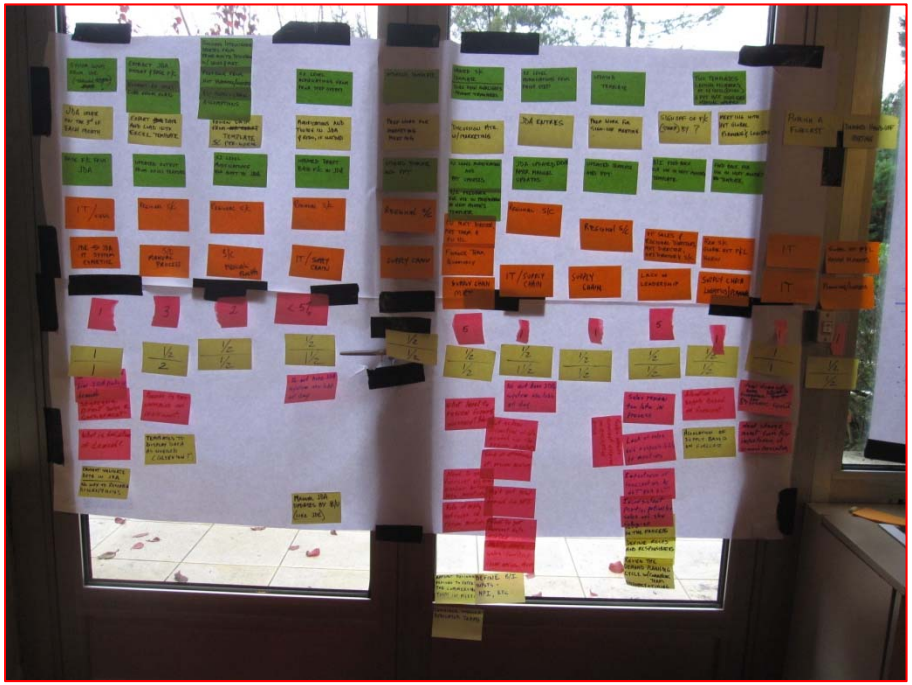
Process Mapping Workshop Objectives

- Identify root causes of lower than required forecast accuracy and prioritize improvement opportunities
- Create and align on the optimal future state process
- Detail a prioritized roadmap for improvement to future state with measurable and time-bound actions achievable during calendar year 2013
- Define governance to ensure implementation
- Standardize process with the intent to replicate to all regions

Current State Maps

BU1

BU2



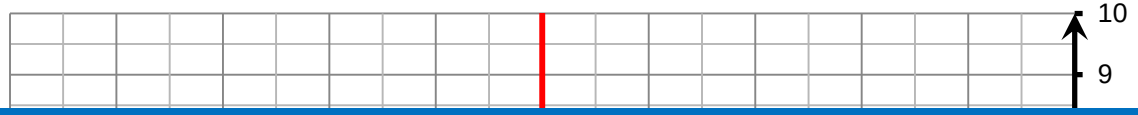
Emerging Themes

- Work not standardized across BUs
- Excess waiting time
- Overprocessing
- Roles & responsibilities not clear
- Engagement not optimal
- Poor communication

Silo-ed view of process steps and responsibilities

Opportunities Prioritized by Impact and Effort

Impact vs. Effort Comparison of Action Items



Direction of Increasing Priority

Additional Action Items

- Automating Processes
- Standardized Templates
- Revenue/Non-Revenue Demand Separation
- Comparison of S&OP Demand Forecast to Finance Sales Forecast in Dollars
- Clear Definitions & Metrics

High Impact/Low Effort
- **Define Sales and Marketing Responsibilities**
- **Input for NPI**
- **What Product Level to Review Forecast Accuracy?**
- **Align SC Demand Forecast to Finance Sales Forecast**
- **What is Standard Definition of Demand?**

- ***5 Kaizen Events***
- ***5 Projects***

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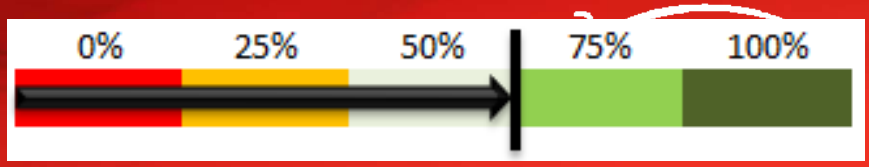
Milestones Overview



2013

Q1 | Q2 | Q3 | Q4

Definitions

Demand Forecast (Q1), X-level to review fcst acc on (Q1), ABC Coding (Q1), Roles & Responsibilities (Q1)

Communication

Global/region review meetings (Q1), training **& awareness (Q1),** feedback loops (Q2)

Alignment

Demand/sales/financial forecast (Q1), Controlled allocation to regions (Q3), **separate direct sales & consignment (Q1-2)**

Toolbox

JDA upgrade (Q3), forecast template (Q1-2), capturing of original demand (Q2)

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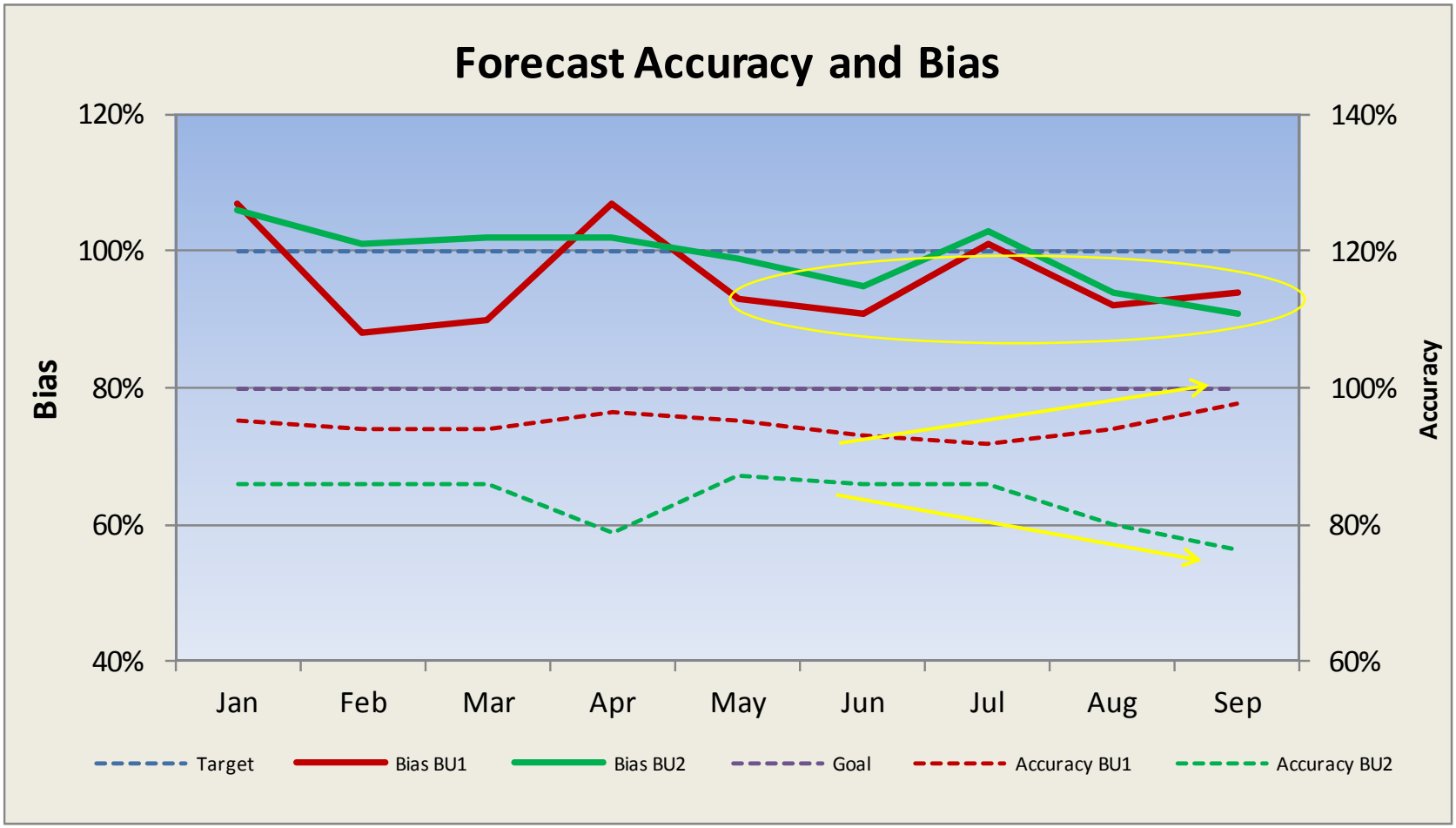
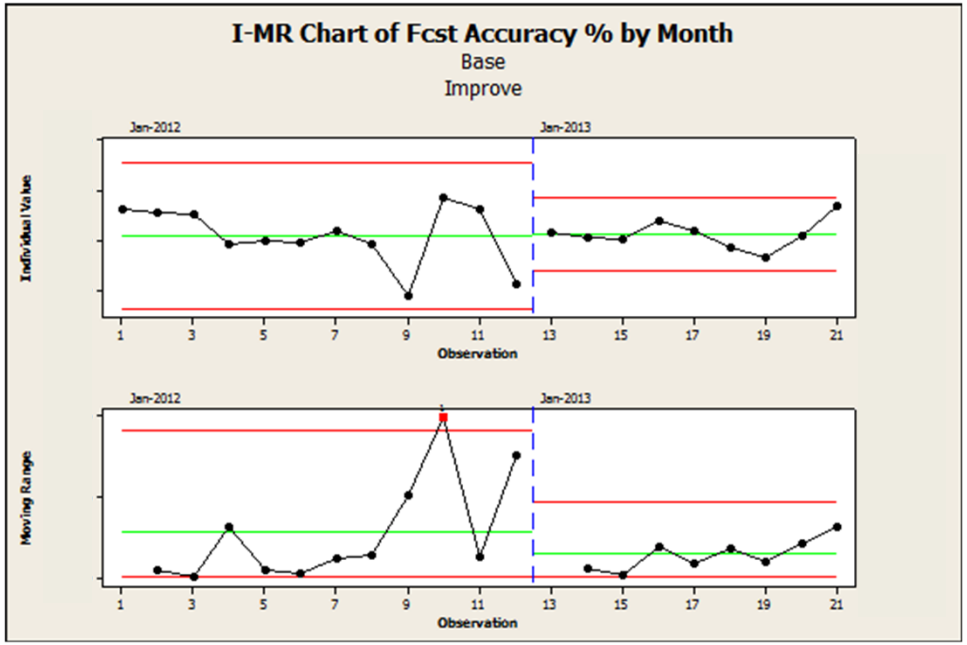
Results Vary: Accuracy and Bias



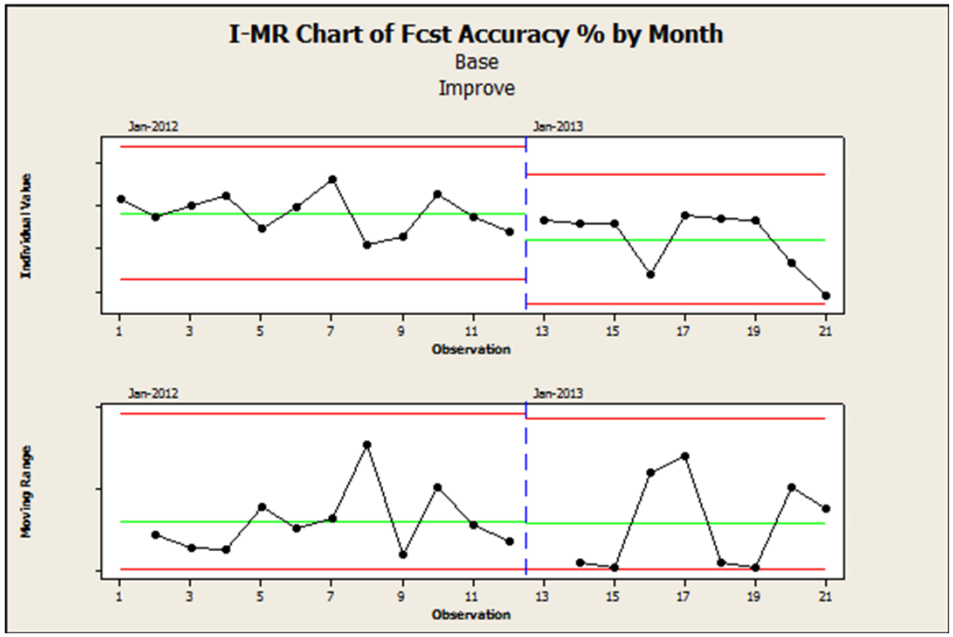
I-MR Charts by stages

BU1 stability of process



Improved Stability

BU2 No change in variability



No significant change

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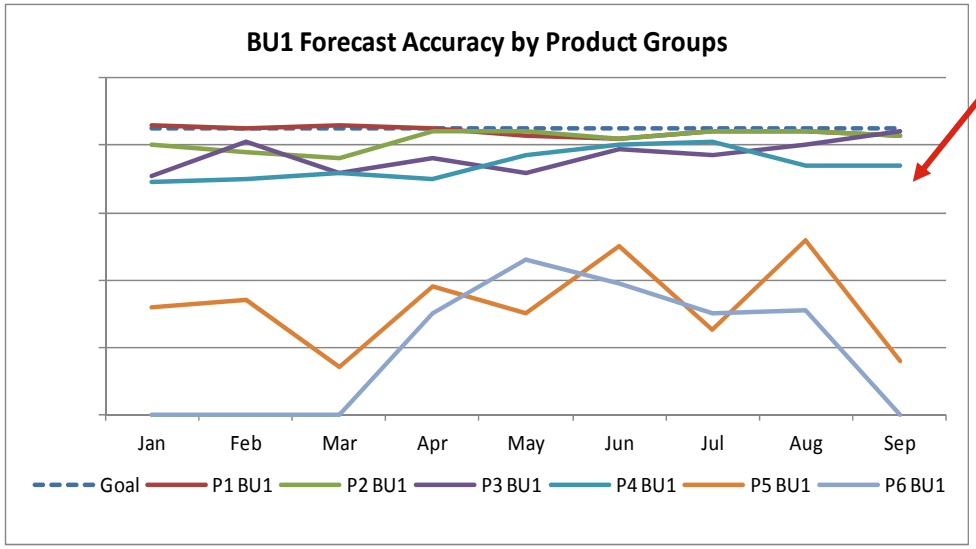
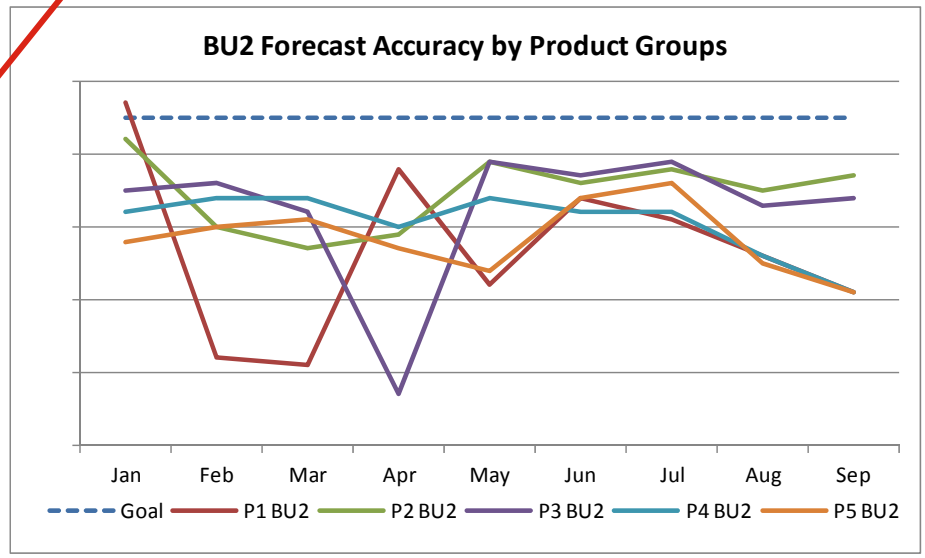
Forecast by Product Groups

High Volume Products

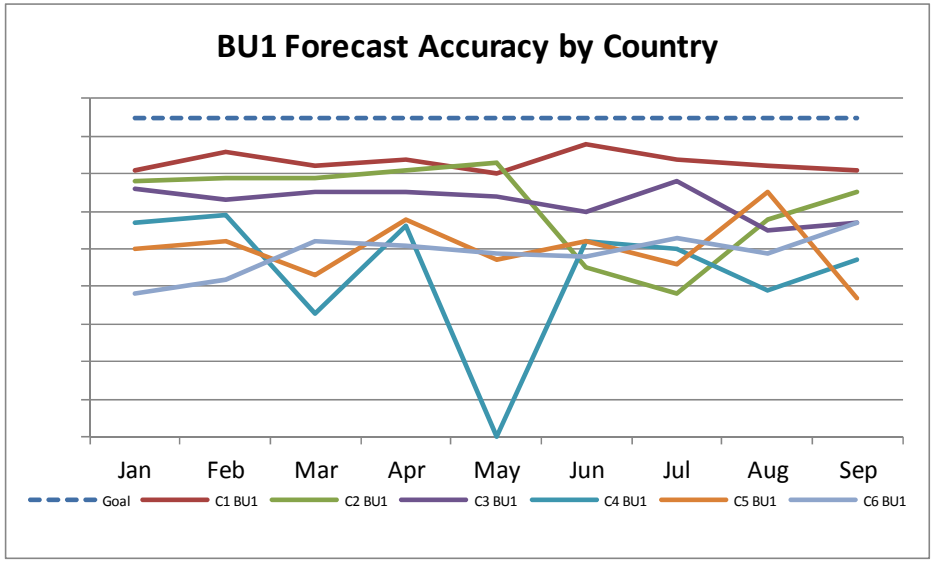


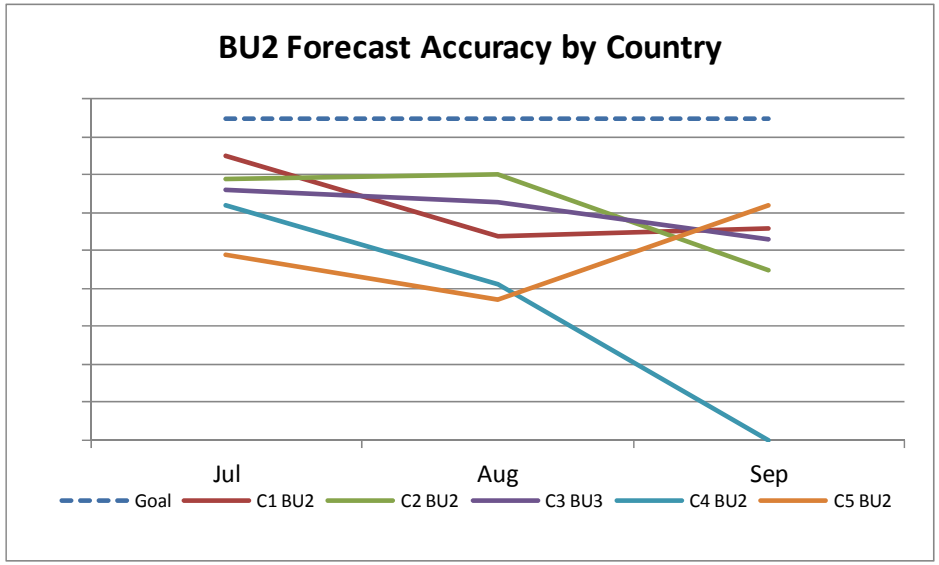


High volume products have higher Forecast Accuracy

High volume products have the worst drop in forecast accuracy
Code reduction Program impact

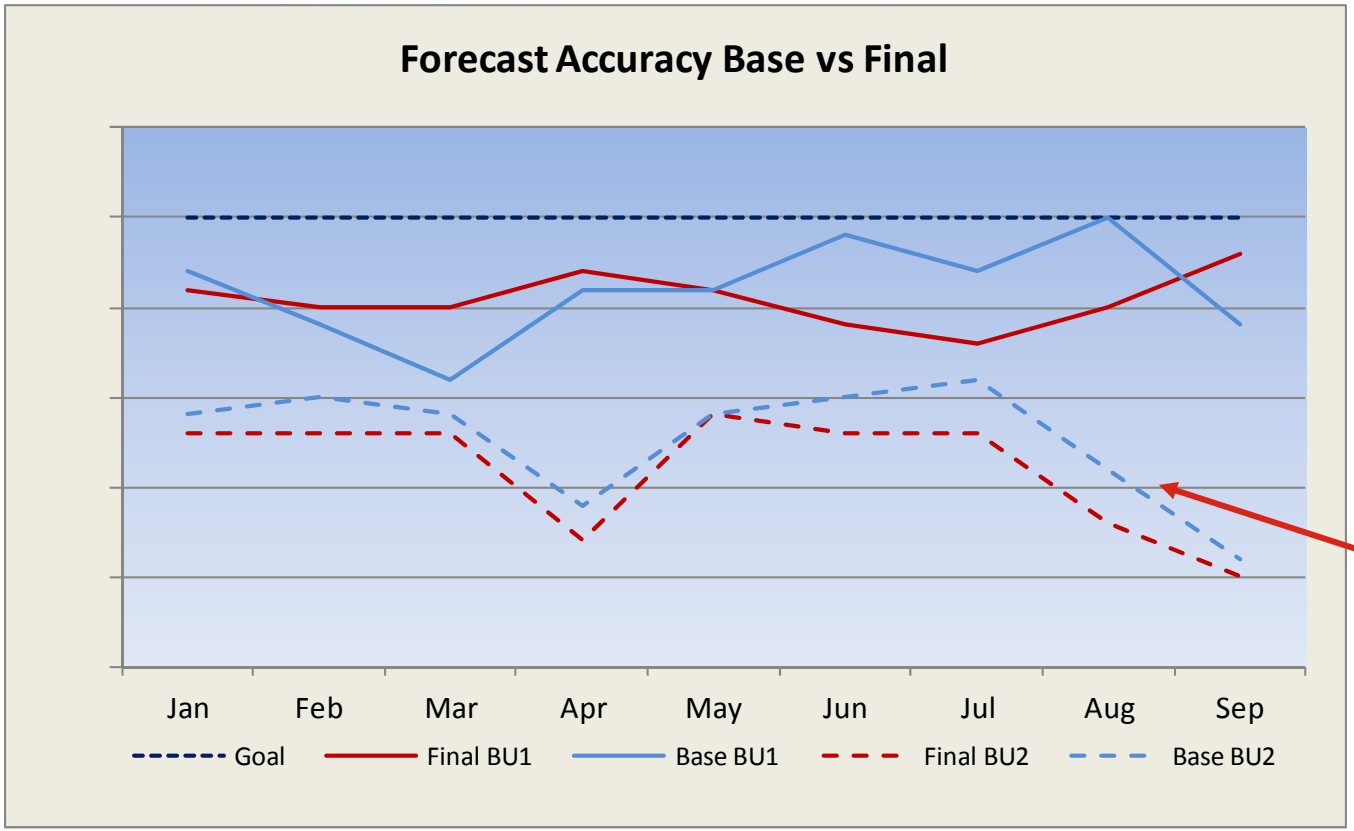
Country level forecast





Country level forecasting had no differentiating impact

Base Forecast vs Final Forecast



Base Forecast consistently has higher accuracy

BU1 made only selective (< 10%) changes to Base forecast

BU2 Overrides almost all of Base forecast

Actions Underway

- ✓ Demand striping
  - ✓ Separate consignment/Non Revenue visibility
- ✓ Forecast/revenue comparison
- Automated size distribution
- Automated Statistical Tuning
- ✓ Alerts for focus in critical areas

- **Seek Executive engagement not sponsorship**

Why BEST

- Structured framework for management of efforts
  - Roadmap, Templates, Toolkits
- Focus on objectives – Problem statement
- VSM: Overheads are beneficial – cross functional team
- Process thinking
- Individual Growth

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Helping Patients is Our Life's Work, and *life is now*