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ORACLE | Demantra

Predict and Shape Demand with Oracle Demantra

Collaborate 08

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The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions.
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Demand Driven Adaptive Planning

Sense, shape and respond to demand

Sense Demand

Analytics at the Core

Respond To Demand

Shape Demand
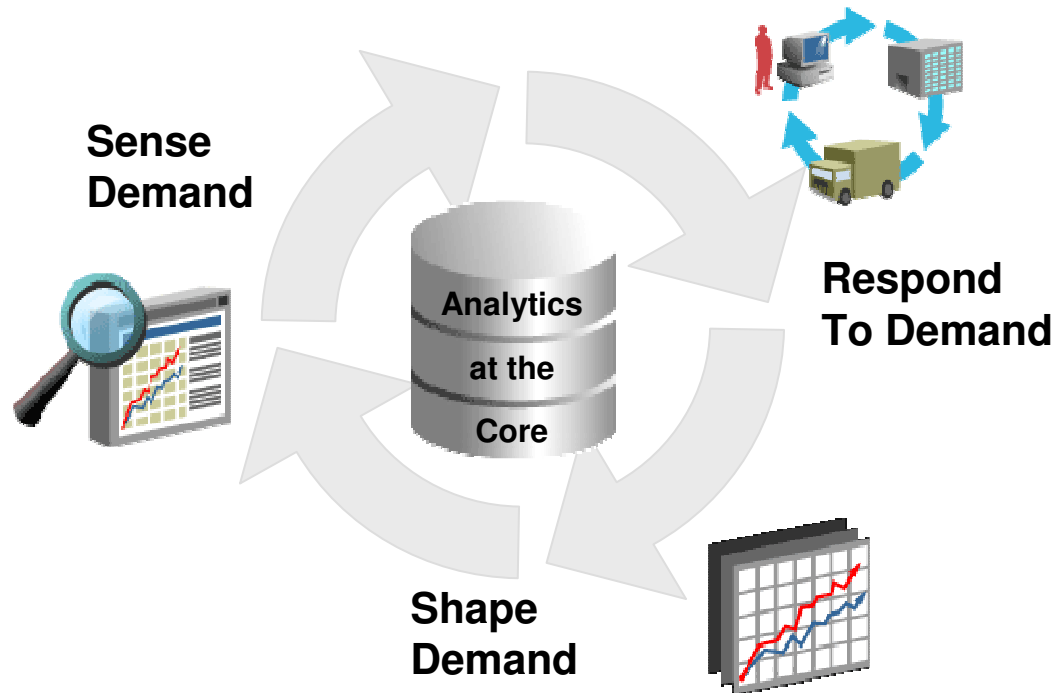
Precise prediction of demand to identify potential problems

+Better optimization of supply enables response

Results in more profitable revenue
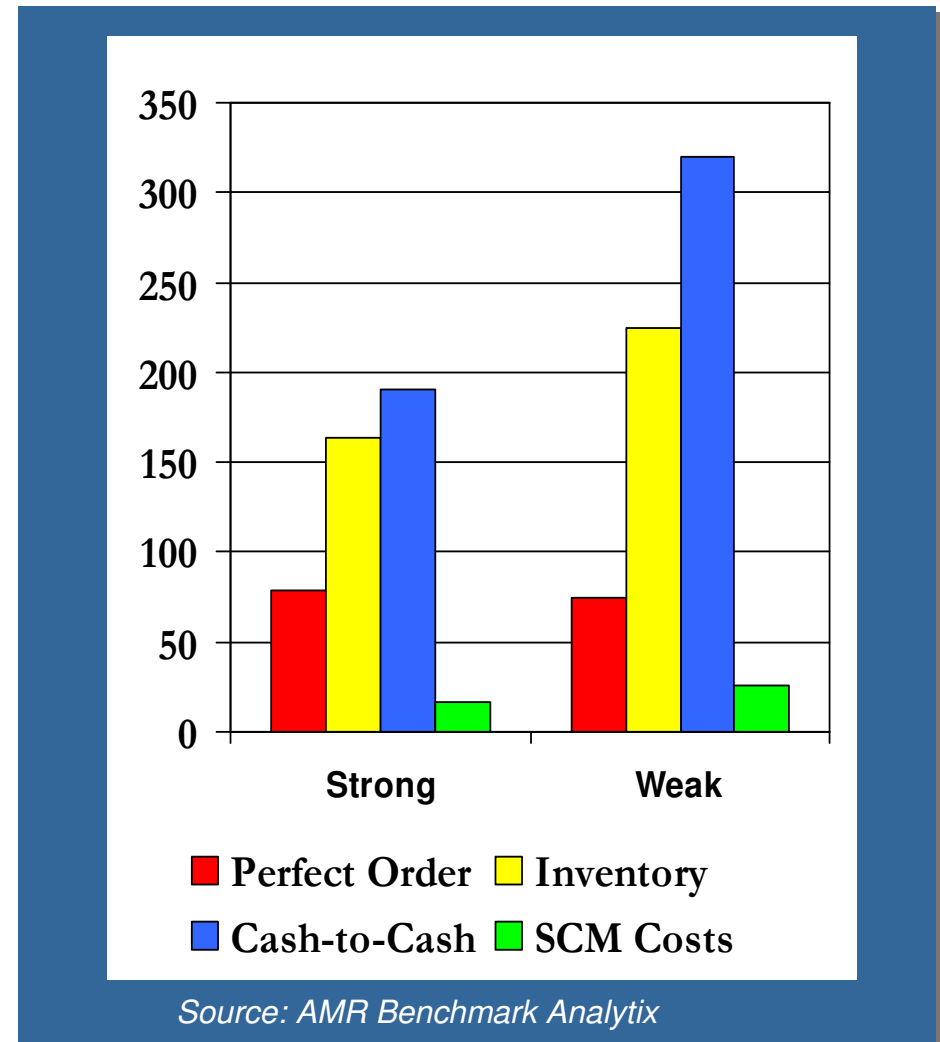
Better Approach – Significant Benefits

Demand Driven leaders have:

- 15% less inventory
- 17% stronger order fulfillment
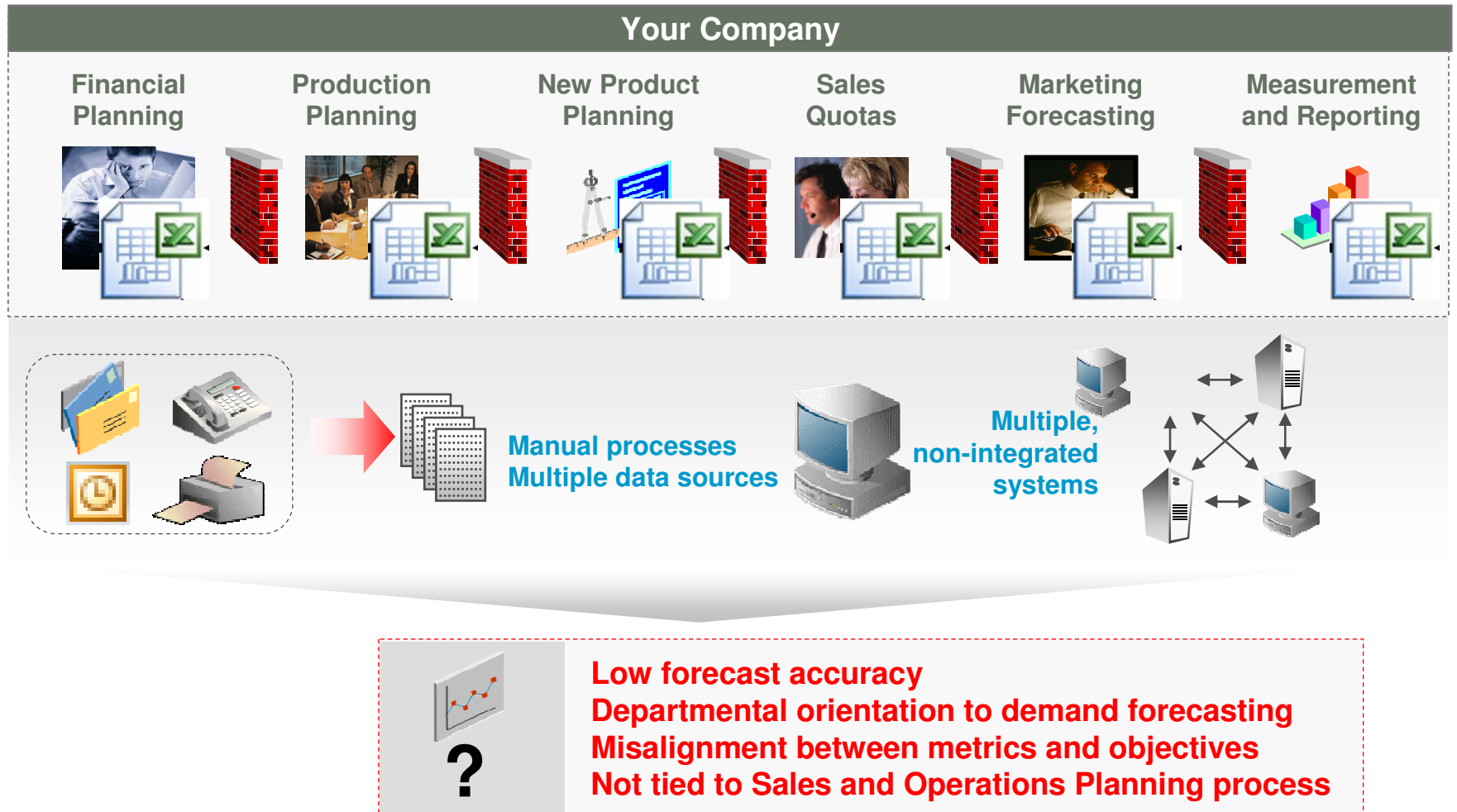- 35% shorter cash-to-cash cycle times

Which translates to:

- 60% better profit margins
- 65% better EPS
- 2-3x the ROA

Improved Demand Management is the first important step !

Source: AMR Benchmark Analytix

Legend: Perfect Order (red), Inventory (yellow), Cash-to-Cash (blue), SCM Costs (green)

Categories: Strong, Weak

Y-axis: 0, 50, 100, 150, 200, 250, 300, 350

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Traditional Approach – Disconnected
High latency, limited collaboration, no consensus forecasting

Your Company

Financial Planning	Production Planning	New Product Planning	Sales Quotas	Marketing Forecasting	Measurement and Reporting

**Manual processes
Multiple data sources**

**Multiple,
non-integrated
systems**

?

**Low forecast accuracy
Departmental orientation to demand forecasting
Misalignment between metrics and objectives
Not tied to Sales and Operations Planning process**

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Better Approach

Real-time demand sensing and collaborative consensus forecasting
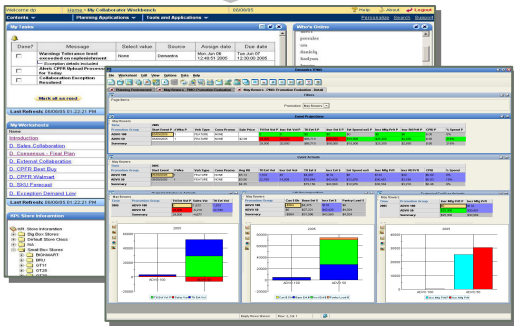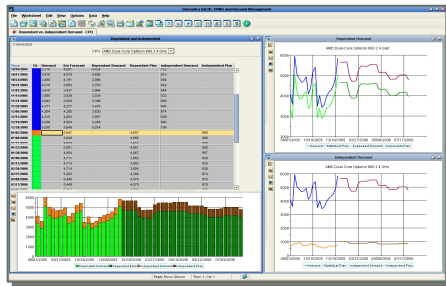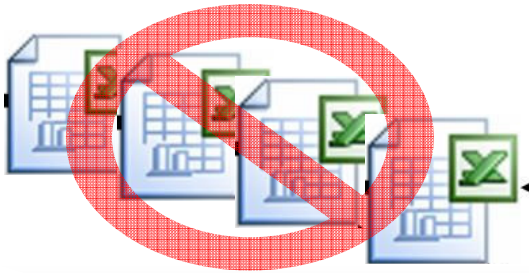
- **Eliminate decision making latency by focusing on excellence in demand visibility**
  - Sense demand more frequently and closer to the point of consumption
  - Replace spreadsheets with one number demand management - Collaborate with all constituents

- **Improve your forecast accuracy**
  - Use advanced analytics and statistics

- **Shape demand**
  - Promotion excellence and decomposition
  - Leverage granular demand signals (customer, channel, store, shelf)
  - Identify and simulate cross selling opportunities

- **Evolve to real-time S&OP**
  - Profitable demand response
  - Identify supply side opportunities
  - Define and monitor customer based metrics
  - Get real time visibility to sales tactics (price breaks, promotions, deals)

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Oracle Advanced Planning Solution

Complete, best-in-class e-business planning process platform

Trading Partners					

Best in class Business Processes	Supply Chain Risk Management	Demand driven adaptive planning	Real-Time S&OP	Operational Excellence	Multi-Enterprise Collaboration

Role-based Portals

Integrated Planning Functions

Network Design — Demand Sensing And Shaping — Postponement Optimization — Holistic Supply Planning — Promise, Distribute, and Replenish

Execute to plan

Preconfigured Worksheets and Workbenches

Products	Strategic Network Optimization	Inventory Optimization	Real-Time Sales and Operations Planning	**Demand Management and Advanced Forecasting**	Predictive Trade Planning and Optimization	Advanced Supply Chain Planning	Production Scheduling	Global Order Promising	Collaborative Planning

Platform						

XML

WFL

Connectors

Common planning data model

Embedded Analytics

Future *

JDEdwards* | ORACLE E-BUSINESS SUITE | SIEBEL* | **Legacy ERP**

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Oracle Demantra Demand Management

Evolve at your own pace to a best-in-class solution

Start anywhere

Eliminate spreadsheets

Forecast based on attributes and product characteristics

Compute promotional lifts and analyze impact of demand drivers

Assumption based forecasting

Leverage POS and channel data

Forecast new product introductions

Collaborate with customers

Use advanced statistics and causal factors

Complex alerts and custom worksheets

Manage rolling forecasts

Collaborate with all constituents on one number

Use basic statistics, alerts, and seeded worksheets

Tailor worksheets for individual users

Leverage POS and channel data

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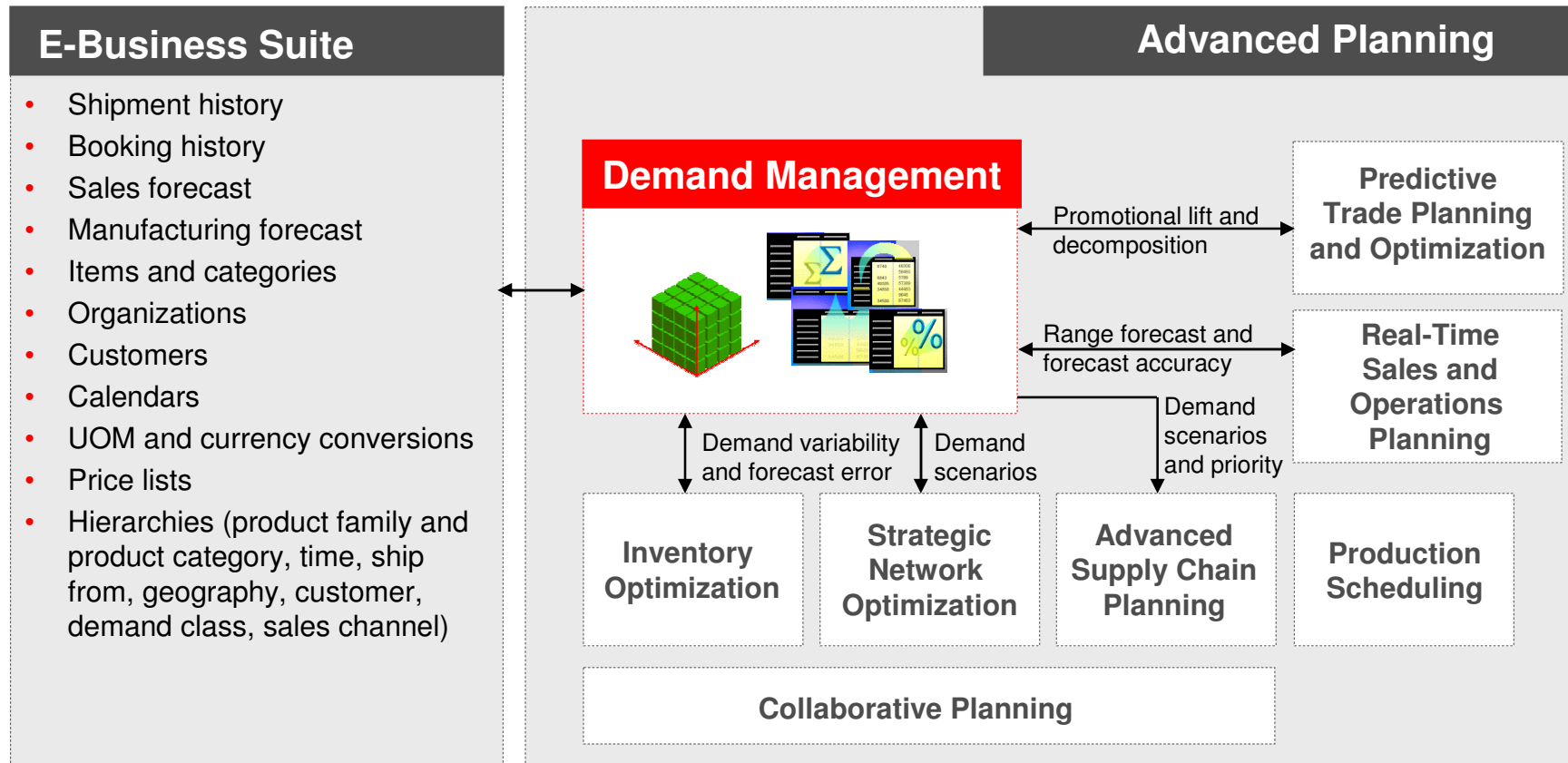**From less complex to best-in-class**

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Achieve Incremental Value

Implement additional Advanced Planning components quickly by leveraging the same foundation

E-Business Suite

- Shipment history
- Booking history
- Sales forecast
- Manufacturing forecast
- Items and categories
- Organizations
- Customers
- Calendars
- UOM and currency conversions
- Price lists
- Hierarchies (product family and product category, time, ship from, geography, customer, demand class, sales channel)

Advanced Planning

Demand Management

Promotional lift and decomposition → **Predictive Trade Planning and Optimization**

Range forecast and forecast accuracy ↔ **Real-Time Sales and Operations Planning**

Demand variability and forecast error | Demand scenarios | Demand scenarios and priority

Inventory Optimization

Strategic Network Optimization

Advanced Supply Chain Planning

Production Scheduling

Collaborative Planning

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What Makes Demantra Better

- ## Increased demand visibility

  - **Scalable to handle billions of data points**

- ## Automated forecasting with high accuracy

  - **No statistics experience required**

- ## User configurable worksheet interface

  - **Support any business planning need**

- ## Web-based collaborative planning platform

  - **S&OP across all departments, customer & suppliers**

- ## Integrated marketing and promotion planning

  - **Shape demand to grow revenue**

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Demantra Demand Management

Enables real time demand sensing and shaping …

❶ **Sense demand real-time**

❷ Improve forecast accuracy

❸ Shape demand for profitability

❹ Evolve to real-time sales and operations planning

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Sense Demand Real-Time

Involve all constituents and forecast closer to the point of consumption
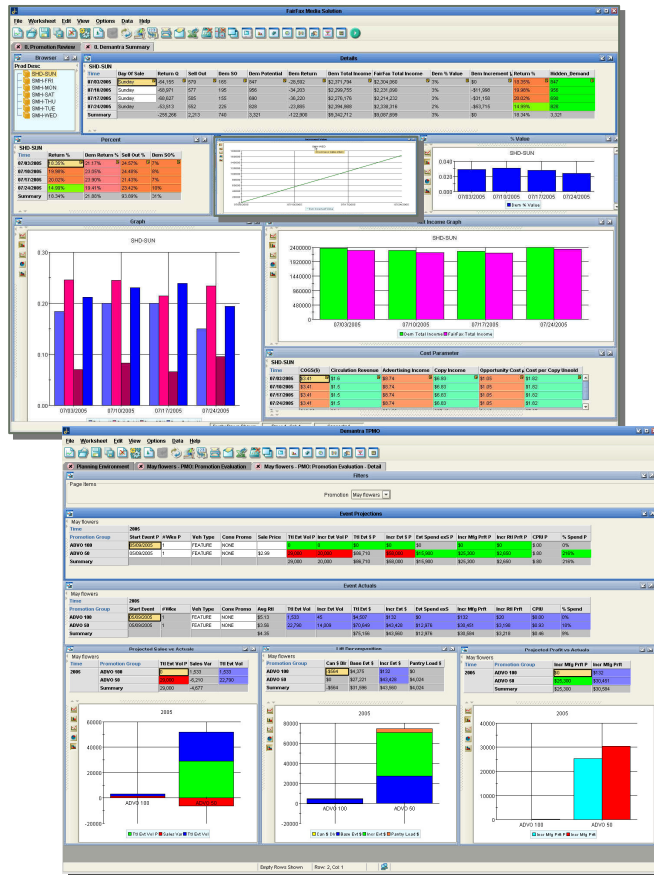
- **Sense demand real-time, at more granular level, and closer to the point of consumption**
  - Report and measure demand in the ways important to your business - role-based Collaboration Workbench for coordinated demand response
  - Support different demand data for each customer and channel
  - Easily add additional sources of information, such as external syndicated and POS data, using data integration profiles
  - Use multiple units of measure and multiple currencies
  - Collect information from multiple source ERP instances
  - Out-of-the-box integration for Oracle EBS, JDE E1

- **Leverage built-in intelligence to automatically select which level's data to use for forecasting**
  - Roll up data across unlimited hierarchies
  - Forecast at any level of time, product, and location aggregation
  - Completely meta data driven – change on the fly
  - Weekly and daily forecasting support
  - Simulate and compare different demand scenarios

- **Automate collaboration through workflow**
  - Ensure all constituents submit numbers on time
  - Configurable push exception management automates review process

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Sense Demand Real-Time

## Involve all constituents and forecast closer to the point of consumption

US

REGION EAST FCST

REGION WEST FCST

REGION SOUTH FCST

11/20 12pm: "New camera sales at 150% of estimate"

JAPAN

STORE FORECAST

PRODUCT FORECAST

CHANNEL FORECAST

11/18 5pm: "New photo printer sales at -25% of estimate, request TV add"

Region South Sales Forecast QTY Change

Tokyo Store 1 Forecast Change (YEN)

HQ

MANUFACTURING FCST

MARKETING FCST

SALES FCST

11/20 2pm: "Budget approval for global TV add"

TV add "camera + printer" promotion airs 12/21 8pm

ALERT: "Problem in US Region East"

Consensus Forecast

20th Century Fox processes real time updates from 15,000+ stores daily

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Sense Demand Real-Time

Monitor customer demand and respond to ensure high service levels

Customer service metric

Customer and company forecasts

Customer inventory levels
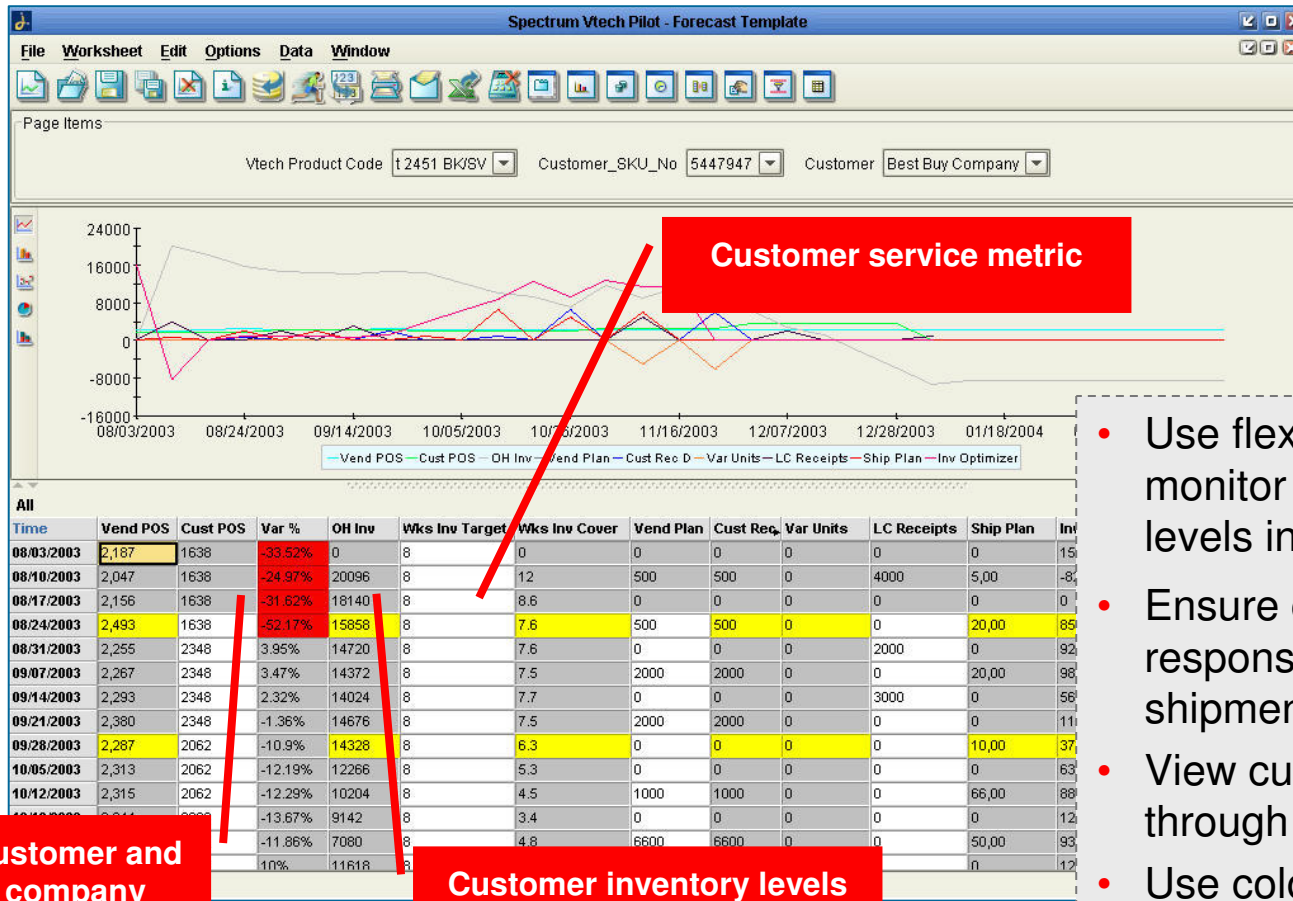
- Use flexible worksheets to monitor customer service levels in familiar format
- Ensure coordinate demand response with forecast and shipment data in one place
- View customer data brought through EDI
- Use color expression to highlight potential problems

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Improve Demand Planner Productivity

Configurable user interface replaces need for individual spreadsheets while ensuring enterprise database access and security

- **Task oriented dashboards**

- **Excel like worksheets**
  - Context sensitive
  - User configurable workspaces
  - Copy and paste multiple cells and rows
  - Create new worksheets based on 20 seeded ones (Historical forecast performance, Forecast accuracy, Top and bottom 5 customers year to date, Revenue analysis, and more)
  - Shared and private worksheets
  - View in any unit or currency

- **View data at multiple levels in hierarchy of choice**

- **Simultaneous update and view multiple worksheets and perform side-by-side comparisons**

- **Color coding based on exceptions**

- **Flexible formulaic expressions**

- **Online notes with audit trail**

- **Off-line mode with automatic sync and MS Excel integration**
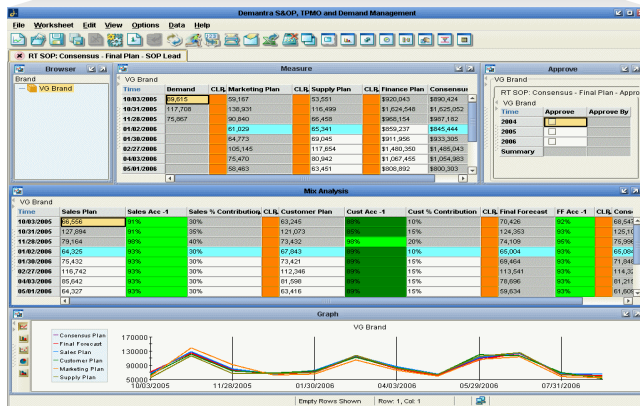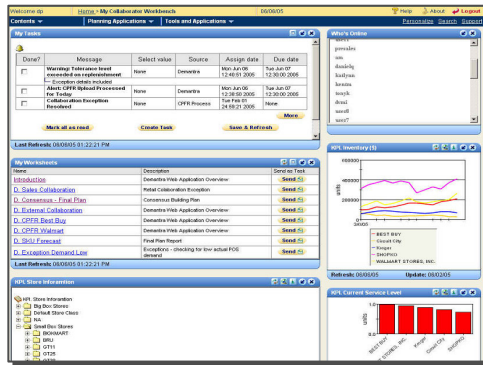
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Demantra Demand Management

Enables real time demand sensing and shaping …

❶ Sense demand real-time

❷ **Improve forecast accuracy**

❸ Shape demand for profitability

❹ Evolve to real-time sales and operations planning
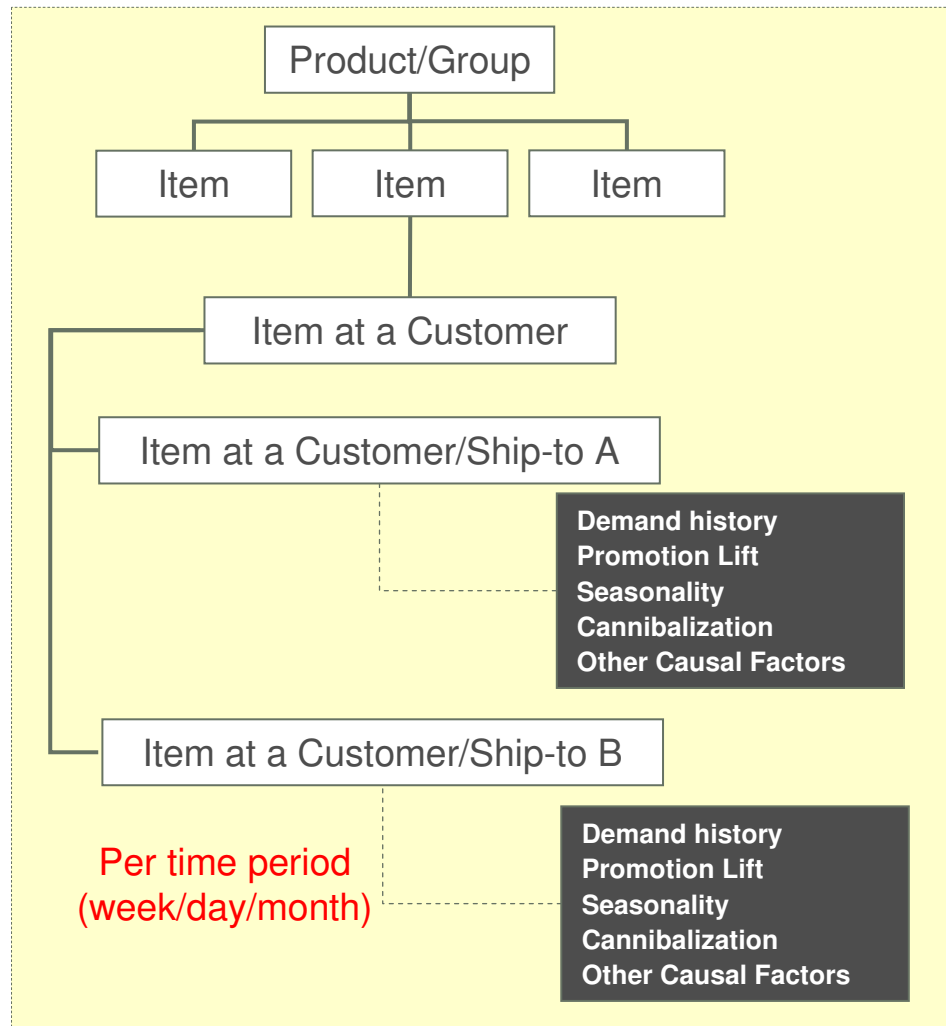
Automatic Short/Long Term Forecast Accuracy

Mixed models automatically adapt in single, precise forecast

Customers achieve 85-95% forecast accuracy
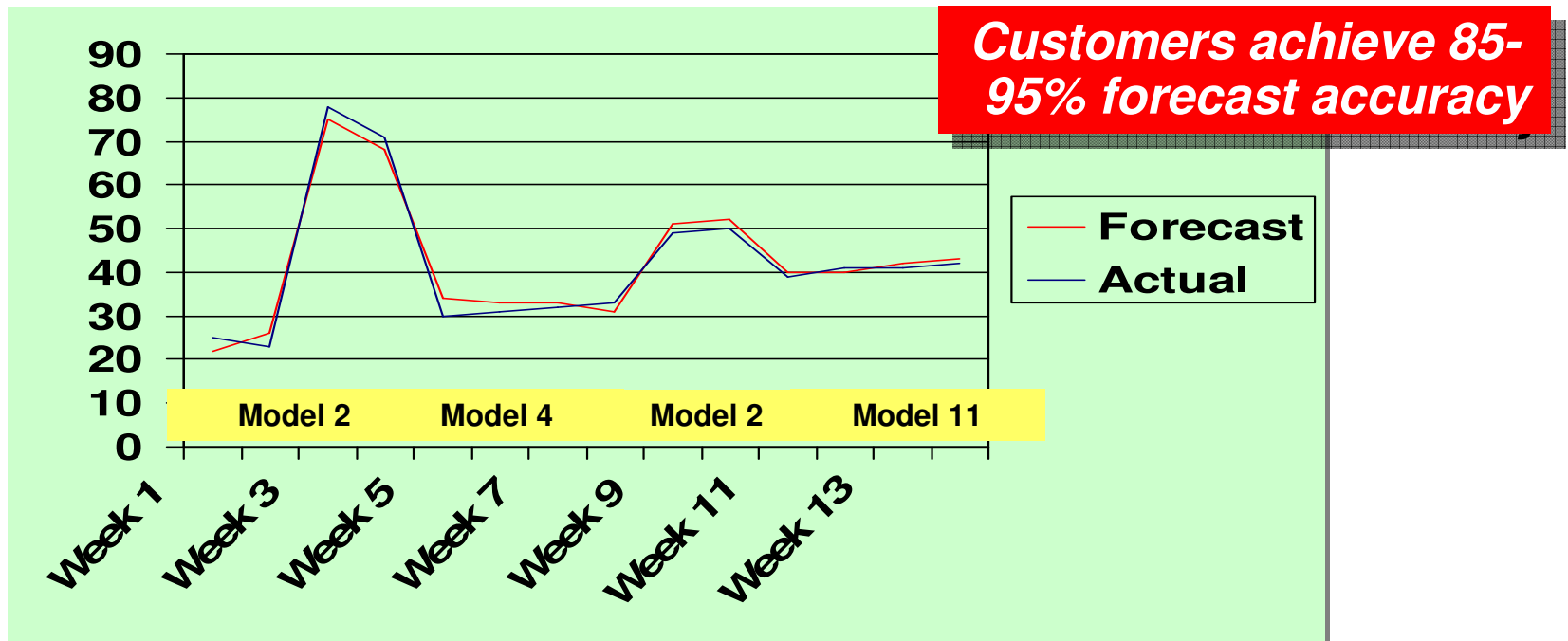
- Mixed forecast models allow a single forecast to be accurate in the short and long term
- Accurately plans promotions, new product introductions
- Automated engine uses sophisticated forecast models but requires no statistical background
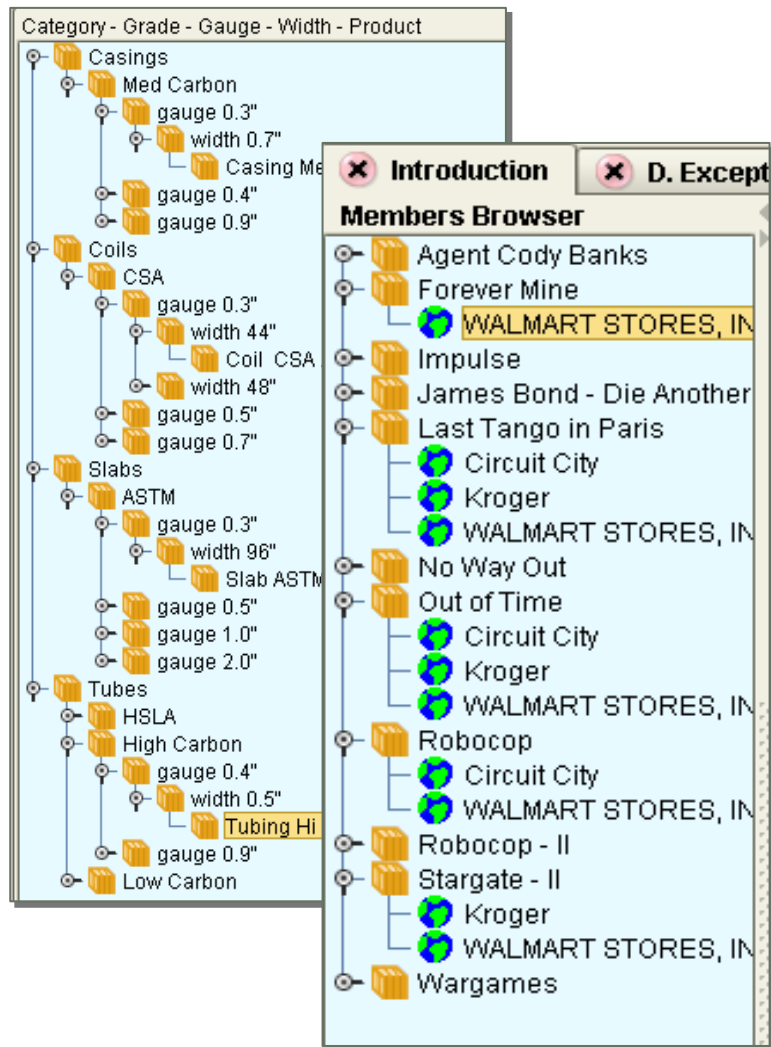 - Data relevance automatically checked and addressed

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The Difference is in the Details

Forecasts at the lowest level provide the most accurate forecasts

Product/Group

Item | Item | Item

Item at a Customer

Item at a Customer/Ship-to A

Demand history
Promotion Lift
Seasonality
Cannibalization
Other Causal Factors

Item at a Customer/Ship-to B

Per time period
(week/day/month)

Demand history
Promotion Lift
Seasonality
Cannibalization
Other Causal Factors

- **Demand history and causal factors maintained at lowest level**
- **Forecasts done at lowest level**

- **Coefficients calculated and maintained at the lowest level for which there is demand history**

- **Forecasts and promotion predictions reflect local, regional, product group customer, time period, sensitivity, and so on**

- **Demantra approach yields most granular analysis of demand for more accurate forecasts**

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Flexible Hierarchies Support Planning at any Level for any Department

Category - Grade - Gauge - Width - Product

- Casings
  - Med Carbon
    - gauge 0.3"
      - width 0.7"
        - Casing Me
    - gauge 0.4"
    - gauge 0.9"
- Coils
  - CSA
    - gauge 0.3"
      - width 44"
        - Coil CSA
      - width 48"
    - gauge 0.5"
    - gauge 0.7"
- Slabs
  - ASTM
    - gauge 0.3"
      - width 96"
        - Slab ASTM
    - gauge 0.5"
    - gauge 1.0"
    - gauge 2.0"
- Tubes
  - HSLA
  - High Carbon
    - gauge 0.4"
      - width 0.5"
        - Tubing Hi
    - gauge 0.9"
  - Low Carbon

- Introduction | D. Except

Members Browser

- Agent Cody Banks
- Forever Mine
  - WALMART STORES, IN
- Impulse
- James Bond - Die Another
- Last Tango in Paris
  - Circuit City
  - Kroger
  - WALMART STORES, IN
- No Way Out
- Out of Time
  - Circuit City
  - Kroger
  - WALMART STORES, IN
- Robocop
  - Circuit City
  - WALMART STORES, IN
- Robocop - II
- Stargate - II
  - Kroger
  - WALMART STORES, IN
- Wargames

- Unlimited hierarchies to model all planning data**:**
  - Products and product families
  - Plants & distribution networks
  - Customer ship-locations including DCs and stores
  - Sales territories and customer account relationships
  - Promotion and marketing programs
  - Attributes and characteristics
- User view data their way
- New levels can be added at any time
- Data stored at lowest level and aggregated
- Intelligent data management ensures incomplete data is detected
  - Planning automatically done at next level when statistically relevant data is not available
- Hierarchies can be changed on the fly by users to accommodate business changes

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Oracle Demantra Demand Management Products

Summary of product capabilities

Demand Management

- Statistical forecasting
- Causal factors
- New product introduction (NPI)
- Reporting and analysis
- Collaboration platform - alerts and exceptions
- Unlimited hierarchies, dimensions, levels, and attributes
- Mixed and multiple demand signals

Advanced Forecasting and Demand Modeling

- Computation and display of Individual causal contribution
- Impact analysis of events
- Cross-correlative Analysis
- Attribute based forecasting
- Promotion and sales calendars
- Nodal tuning
- Unlimited causal factors
- NPI - Shape modeling and alignment
- Additional and improved forecasting models
- Advanced reporting (Gantt charts for deals, trade, promotions, price breaks, and so on)

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Demantra Demand Management

Enables real time demand sensing and shaping …

❶ **Sense demand real-time**

❷ **Improve forecast accuracy**

❸ **Shape demand for profitability**

❹ **Evolve to real-time sales and operations planning**

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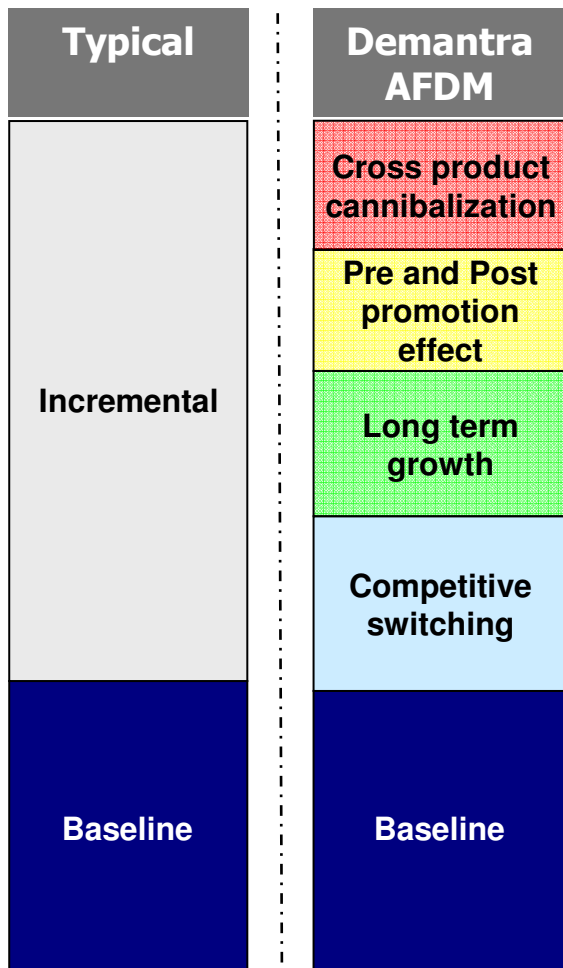
Shape Demand for Profitability

Leverage Advanced Forecasting and Modeling to understand the real impact of promotions and sales incentives
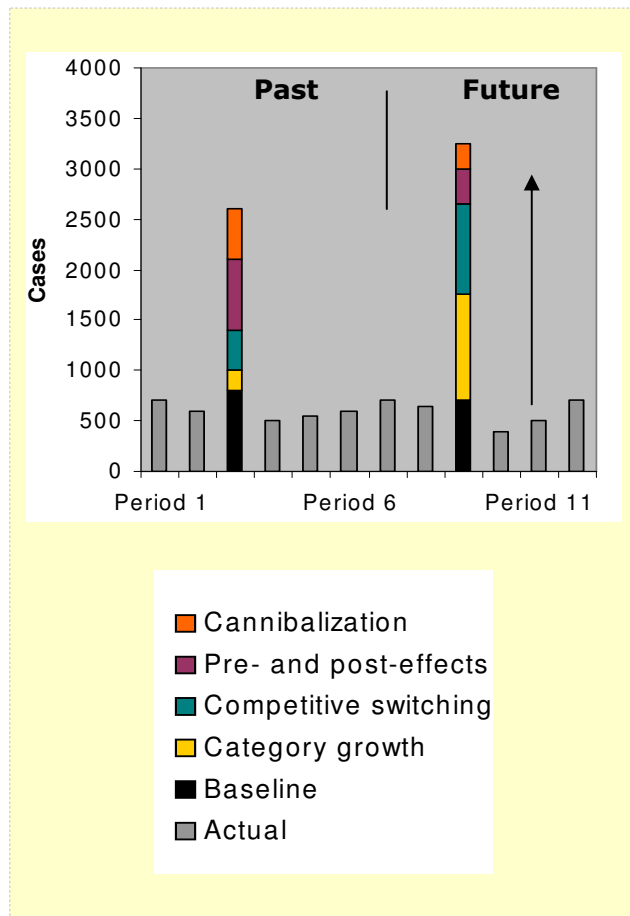
- **What incremental volume will result from a marketing program?**
- **How will it impact the sales of other products?**
- **How does a marketing program at a brand or product family level impact a specific item?**
- **What were the indirect effects such as cannibalization and consumer stockpiling?**
- **What is the ROI on my marketing and trade spending?**
- **What is the predicted impact of future activity?**
- **How does a promotion impact shipments and DC replenishments?**

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Shape Demand for Profitability

Leverage Advanced Forecasting and Modeling to understand the real impact of promotions and sales incentives

Typical	Demantra AFDM
	Cross product cannibalization
	Pre and Post promotion effect
Incremental	Long term growth
	Competitive switching
Baseline	Baseline

- **Baseline versus incremental volume**
  - Provides decomposition of incremental volume from advertising, promotions, or sales incentives
- **Granular lift analytics**
  - Incremental volume lift coefficients maintained at lowest level
  - Localized promotion analysis
  - Allows shipments/replenishments to be adjusted by ship-to location
- **Cross product and customer effects**
  - Determines cross-product cannibalization impact
  - Adjusts forecasts for product and customer cannibalization
- **Configure system for assumption based forecasting**
  - Structured tracking and categorization of forecast adjustment reasons, such as market and geopolitical changes
  - Evaluation of impact on demand as driver for future forecasts
  - Examples
    - Semicon: forecast based on chip design wins
    - High-Tech: forecast based on probability of winning an opportunity
    - Life Sciences: long-term forecast based on drug approval and patent regulations

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Shape Demand for Profitability

Accurately forecast demand for new products based on existing data
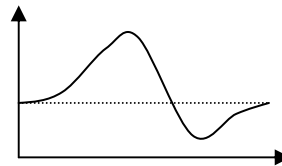
- **New products present forecasting challenges**
  - Limited or no demand history for a given item
  - May combine characteristics of several previous products
  - Price points, changing market conditions may be different
  - Product demand changes over product life cycle

Chaining	Shape Modeling	Attribute-Based Forecasting
New Product C = 30% Product A + 75% Product B	• Apply shapes, scaled for volume and time • Re-scale base on initial demand data	Model new item based on past behavior of other items with similar attributes

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Demantra Demand Management

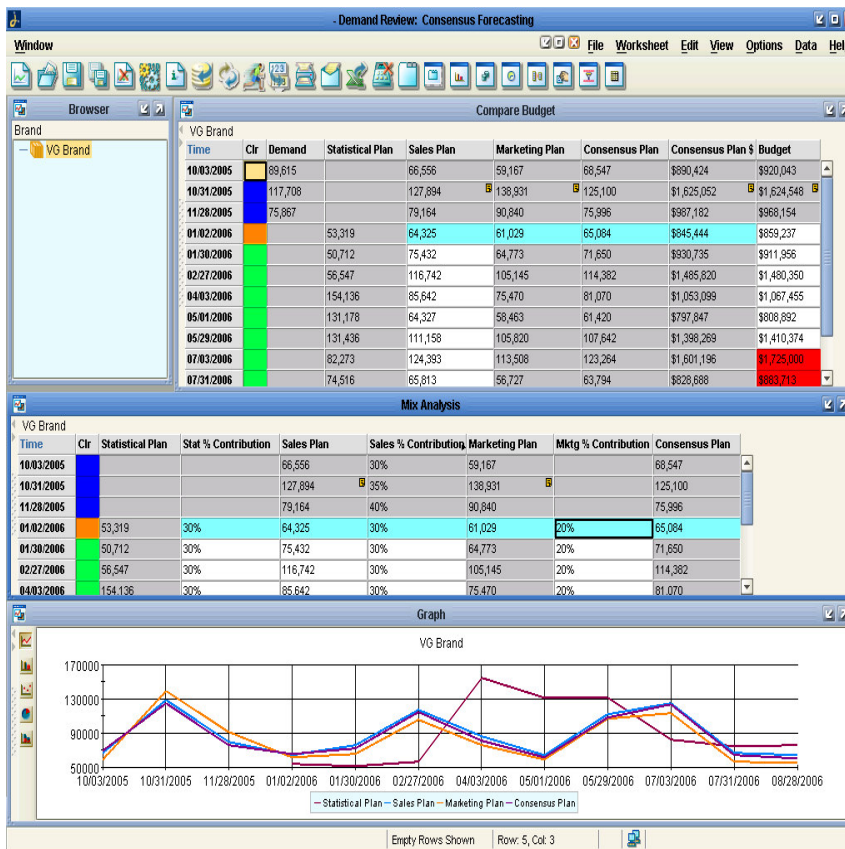*Enables real time demand sensing and shaping …*

❶ Sense demand real-time

❷ Improve forecast accuracy

❸ Shape demand for profitability

❹ **Evolve to real-time sales and operations planning**

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Evolve to Real-Time S&OP

Profitably balance supply, demand, and budgets

- **Seeded templates for S&OP collaboration**
  - Seeded consensus planning worksheets
  - Easily tailored to your business

- **Configurable and extensible**
  - Collaborate at any level

- **Manage by exception instantly**
  - Exceptions and visual cues easily point to important issues immediately
  - Document all assumptions with a complete audit trail of decisions taken
  - Leverage POS data to alert planners to exceptions real time (versus batch month by month)

- **Integrated**
  - Seeded data streams for data commonly used in the process

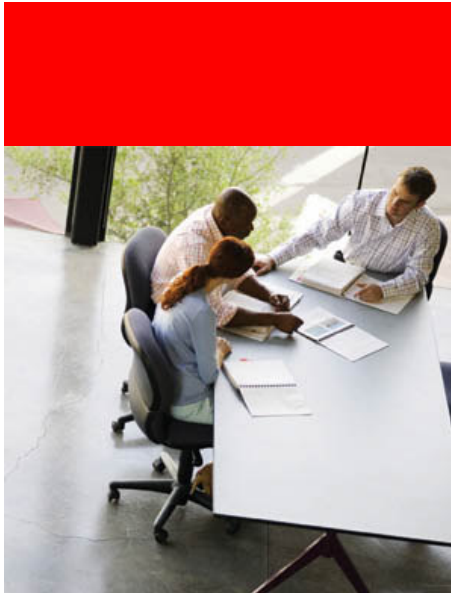**ORACLE**

Shape Demand – Real-Time S&OP

Make demand and supply decisions simultaneously

- Identify financial and revenue goals
- Analyze demand and develop sales forecast
- Synchronize plan across Finance, Sales, Marketing, and Supply Chain
- Determine potential market variables

- Review supply and demand plans
- Develop constrained plan
- Monitor results and respond to deviations
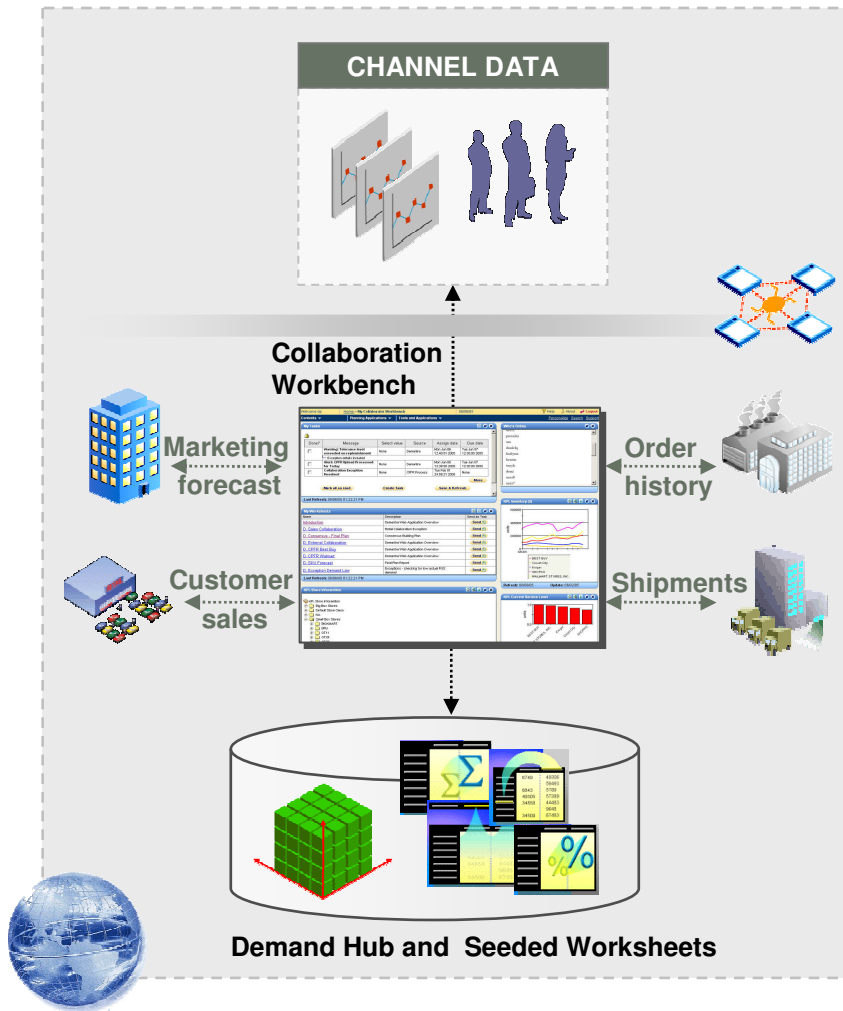- Create promotions and incentives to shape demand and close gaps

Summary

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Oracle Demantra Demand Management

Real-time demand sensing and collaborative consensus forecasting

CHANNEL DATA

Collaboration Workbench

Marketing forecast

Order history

Customer sales

Shipments

Demand Hub and Seeded Worksheets

- **Sense demand real-time**
  - Sense demand more frequently, closer to the point of consumption
  - Capture demand and forecast at more granular level (store, shelf, attributes, product characteristics)
  - Achieve consensus demand number more quickly by involving all constituents at the same time, including customers
  - Quickly identify and react to demand changes and exceptions

- **Improve forecast accuracy**
  - Leverage advanced statistics for more accurate demand number
  - Use any combination of quantitative or qualitative data to establish your base line forecast
  - High precision statistical forecasting, no statistical background required – Superior Bayesian-Markov forecast analytics
  - Forecast based on attributes and characteristics
  - Leverage Advanced Forecast Modeling for promotion lift decomposition and causal analysis

- **Shape demand for profitability**
  - Plan new product introductions
  - Plan promotions and sales incentives
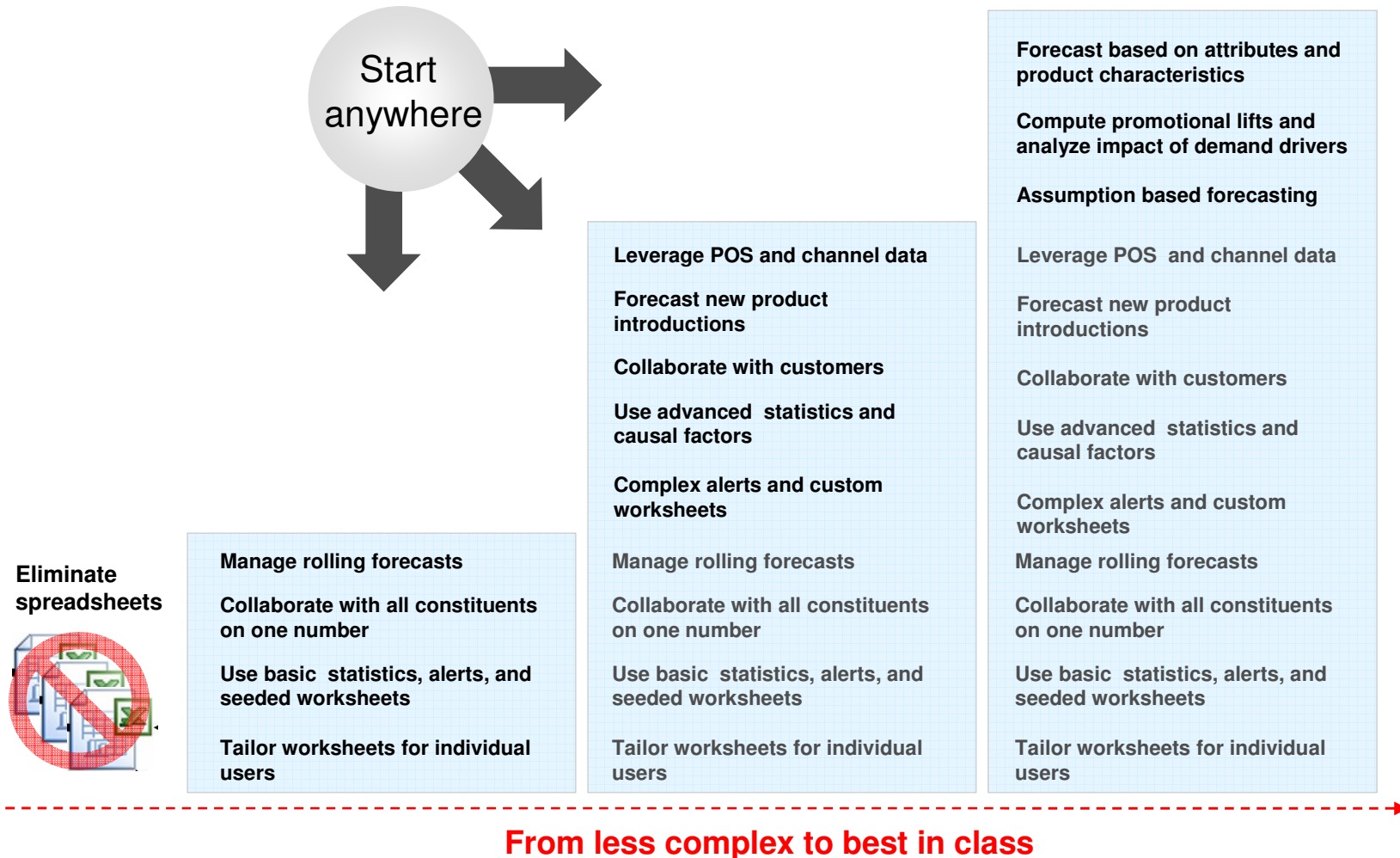 - Identify cross selling opportunities

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Leverage POS and channel data

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Collaborate with customers

Use advanced statistics and causal factors

Complex alerts and custom worksheets

Manage rolling forecasts	**Manage rolling forecasts**	**Manage rolling forecasts**
Collaborate with all constituents on one number	**Collaborate with all constituents on one number**	**Collaborate with all constituents on one number**
Use basic statistics, alerts, and seeded worksheets	**Use basic statistics, alerts, and seeded worksheets**	**Use basic statistics, alerts, and seeded worksheets**
Tailor worksheets for individual users	**Tailor worksheets for individual users**	**Tailor worksheets for individual users**

From less complex to best in class

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ORACLE IS THE **INFORMATION** COMPANY