



# Ferguson's Forecasting Journey

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# About Us



## Wolseley – *Fast Facts*

- Founded in 1887 in Australia as the Wolseley Sheep Shearing Machine Company Limited
- Headquarters: Zug, Switzerland
- World's largest specialist trade distributor of plumbing and heating products to professional contractors and a leading supplier of building materials
- Operates in the United States, Canada, United Kingdom, France, the Nordic region and Central Europe
- Approximately 3,100 locations, 40,000 associates
- 1 million customers
- 500,000 products carefully sourced from more than 100,000 trade vendors
- \$21.2B (USD) annual sales in fiscal year 2012



## *Who We Are*

- Founded in 1953, a wholly-owned subsidiary of Wolseley plc
- The leading supplier of construction related products and services in North America
- Corporate offices in Newport News, VA
- \$9.7B sales in fiscal year 2012
- 18,000 knowledgeable associates



## *Who We Are – Business Groups*



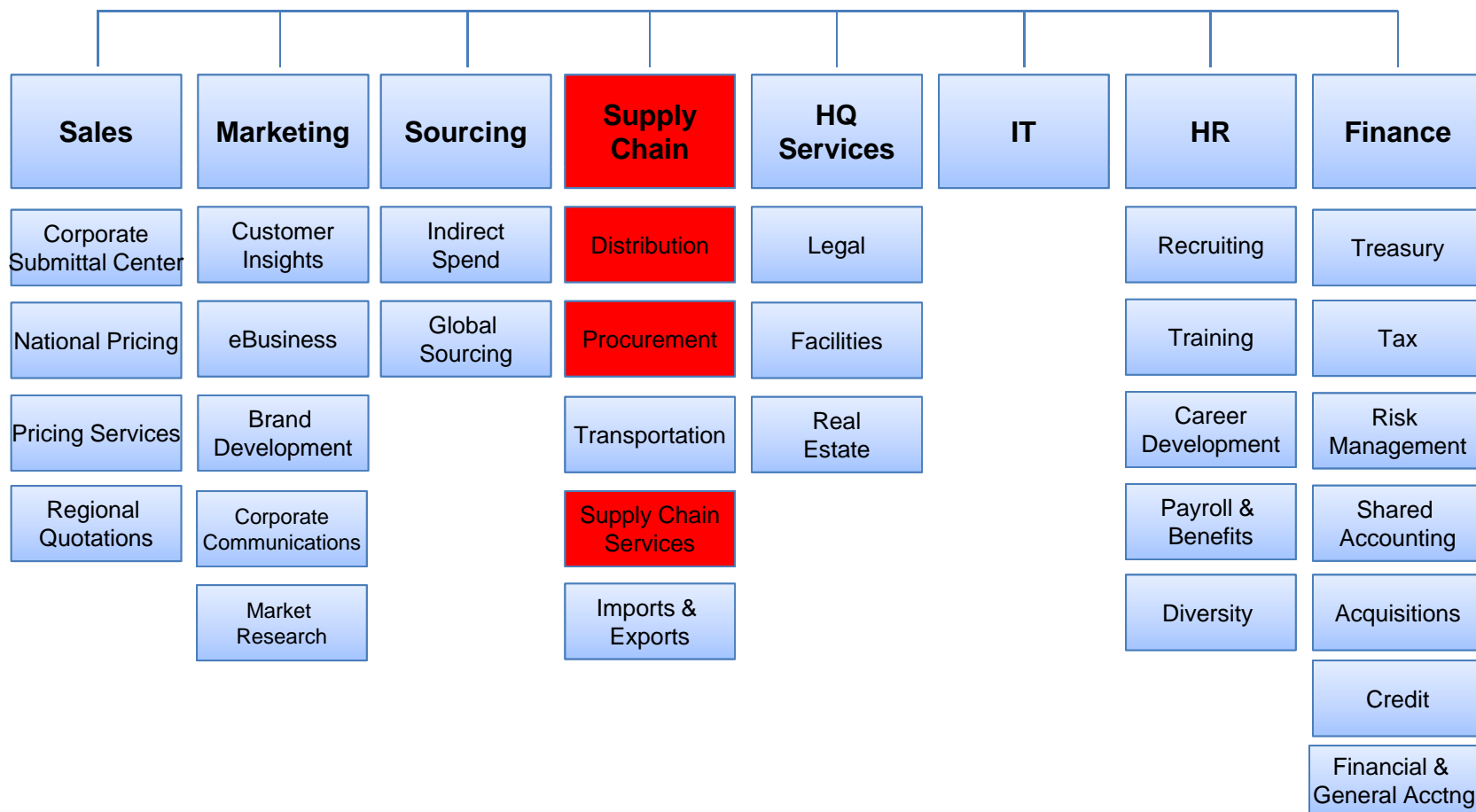
**For 60 years, Ferguson has been committed to delivering excellence to every market we serve:**

- Commercial Plumbing & Mechanical
- Residential Plumbing
- Waterworks
- HVAC
- Industrial
- Hospitality, Facilities Maintenance & Government
- B2C

### **US Market Positions:**

Blended Branches	#1
Waterworks	#2
HVAC	#3
Industrial	#4

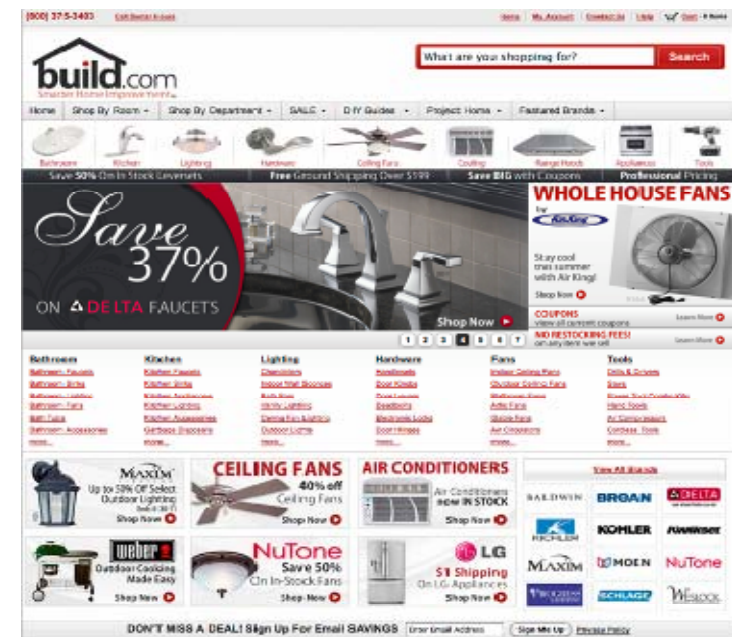
# Corporate Departments





## B2C – Build.com & Ferguson Online

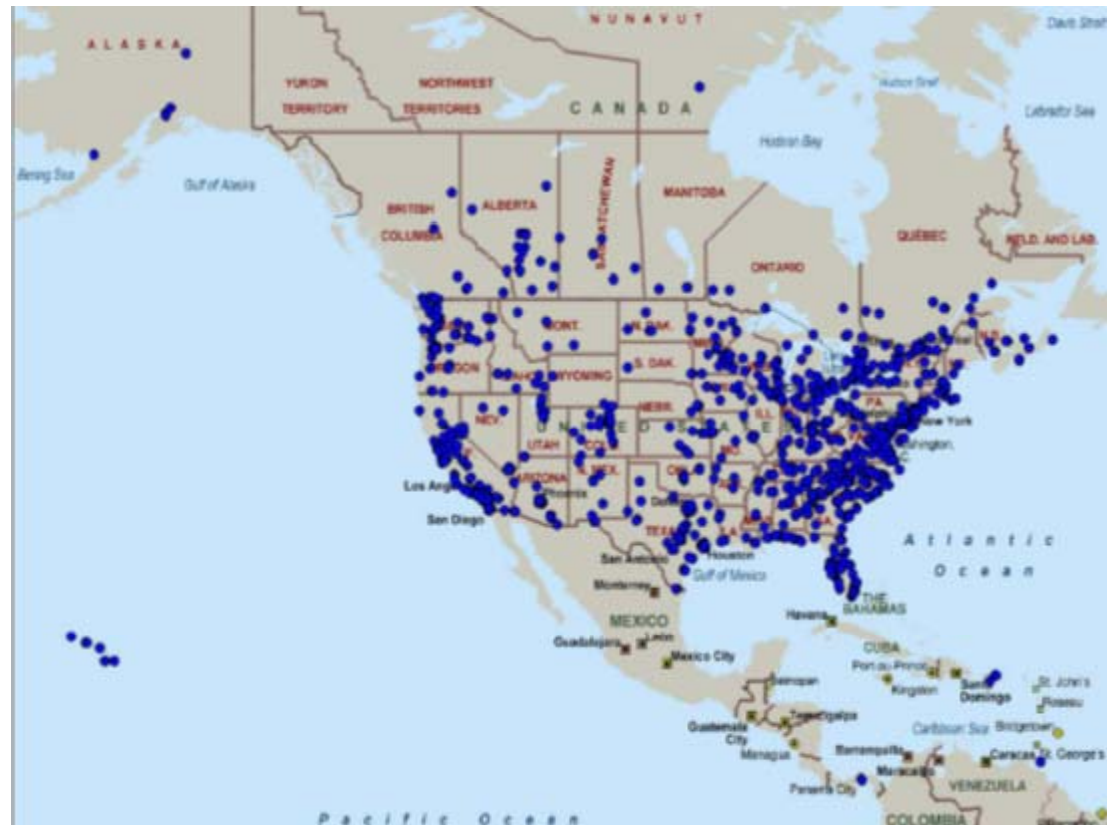
- Ranked as the #2 home improvement website\*
- Scalable business model – Full EDI capabilities
- Sophisticated eCRM tools
- 24 Hour ship times
- No-hassle returns
- Excellent customer service



\* Internet Retailer

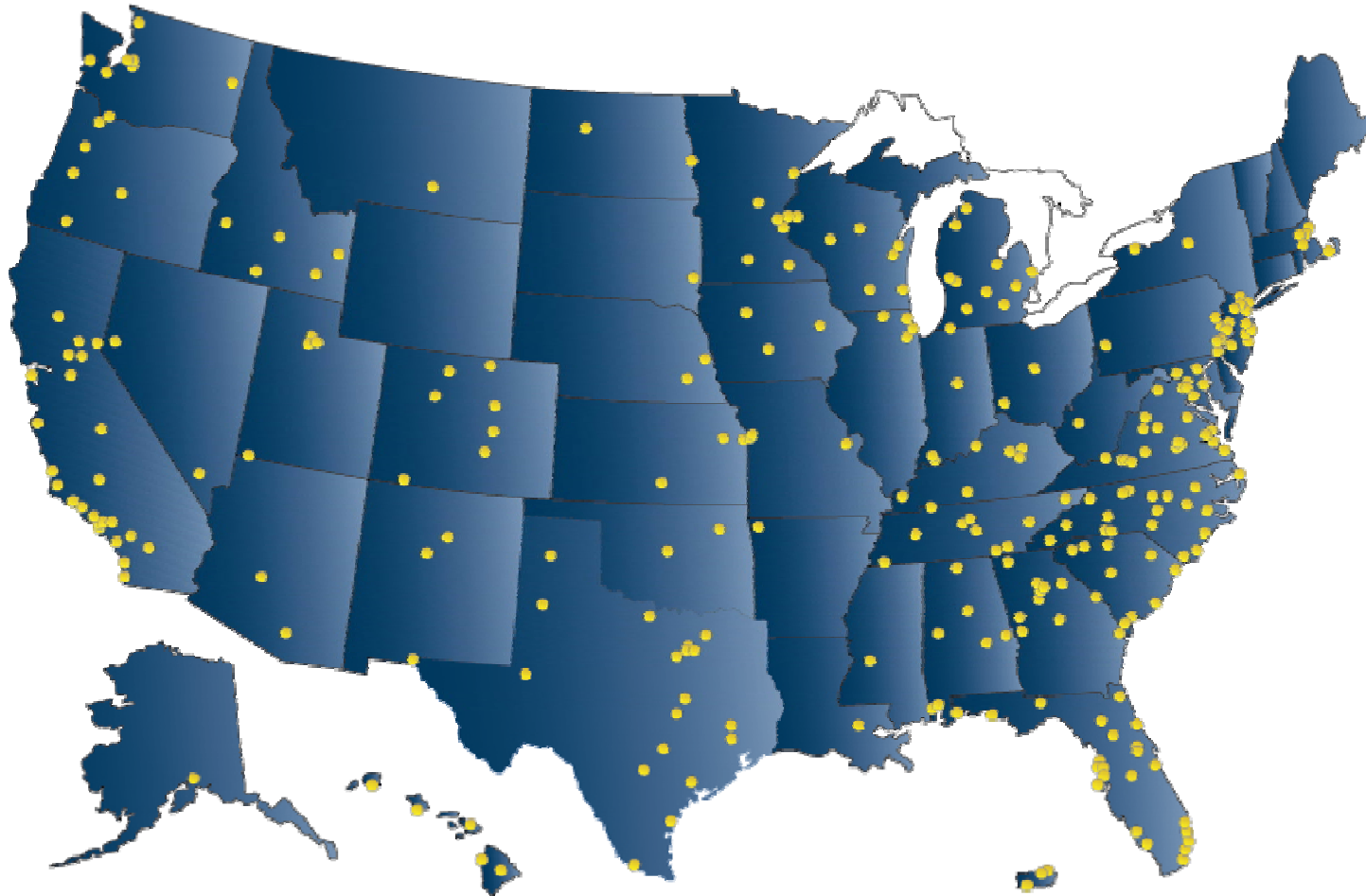
# Where We Are

- Almost 1,300 locations in the US and over 200 in Canada
- We serve customers in all 50 states, Puerto Rico, Mexico, the Caribbean and Central America





## 275 Showrooms Nationwide



# Our Supply Chain



# North American Distribution Network



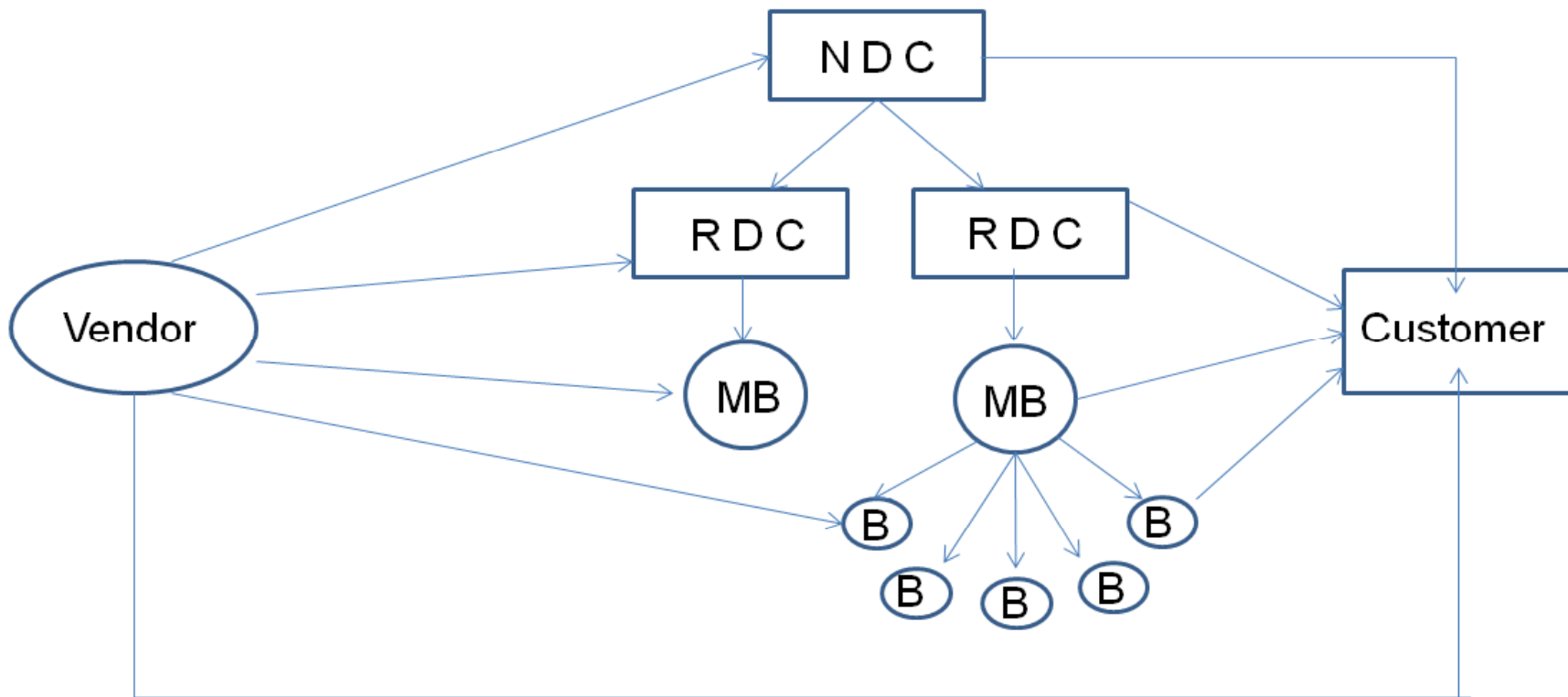
# Distribution Centers

- 9 regional DCs / 3 pipe yards in the US
- 1 DC in Canada
- 5.6 million square feet
- \$344m DC inventory / (8.22 avg. turns)
- 95K unique SKUs
- Availability within 24 hours

- 192 = Average number of locations served per DC
- 78,000 = Average number of lines shipped daily
- 160 = Average number FTL departures daily
- 767 = Average number of LTL shipments daily
- 5,821 = Average number of parcel shipments daily
- 995 DC associates

*(as of August 2012)*

# Network Configuration



# So why do we need forecasting?





## Current System

- Legacy system (Trilogie) calculates a single month demand value with basic averages ie “last 3 months” or a simple trend based on location throughput
- Demand code is manually chosen by buyer for each sku/location combination
- Exceptional demand is manually reviewed
- Safety stock based on days
- No forecasting ability



## SAP Service Parts Planning

- SAP program was scrapped but learned the benefits of a true forecasting system to aid in reducing working capital while increasing fill-rates

## High Level

- Modular system
  - Purchase only the functionality we need
- Can build demand around our different programs and supply chains
  - Sole, Primary, Alternate; Regional, National DCs
- Inventory Planning
  - Better Safety Stock calculation
- Ability to manage flow (avoid spikes)
- Future potential
- Financially stable



## • Details requirements

- Compiled a list of ~75 core requirements

# Vendor Selection

1. Attended Gartner & APICS Supply Chain conferences
2. Gathered data on top 50 vendors
3. Manual review to create short list of top 10
4. Short list to 5 then: internal group reviews, interview users, calls to vendors, general fact finding and discussion with high level requirements
5. Final short list of top 3 vendors for onsite demonstrations
  - ✓ Logility
  - ✓ Oracle Demantra
  - ✓ JDA
6. Perform Gap analysis against requirements



Source: 2010 Gartner

- Provide a solution that:
  - Creates a more accurate reflection of Demand to drive the Auto Replenishment processes.
  - Creates a more effective Safety Stock calculation to be used by Auto Replenishment.
  - Creates a foundation for future supply chain planning solutions.
- To accomplish this:
  - We chose to partner with Logility and their  
**“Logility Voyager suite of Products “**

## Logility Module Flow





### Benefits expected:

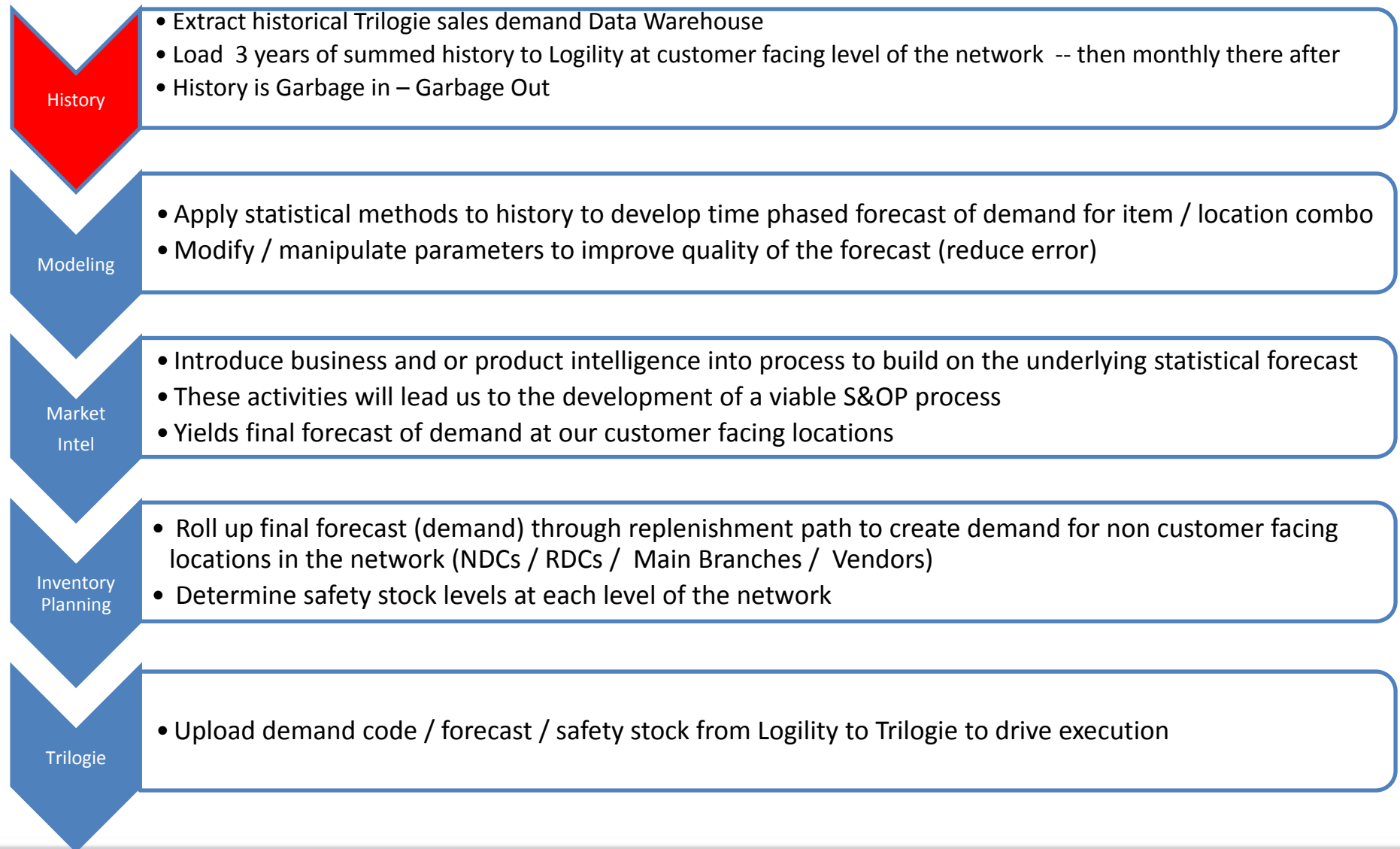
- Improved service levels (fill rates) – which can reduce lost sales.
- Reduced inventory investment – safety stock, replenishment stock and excess
- Improved Demand and Inventory Planning for slow moving and intermittent demand items.
- Ability to produce time phased forecasts for improved internal planning and purchasing as well as for collaboration with suppliers.
- Ability to generate forecasts at every level of the network.
- Improve DC operations – labor planning, operating efficiency, predictability and demand spike management
- Provides underlying demand visibility and management capability to support sourcing negotiations as well as facilitation of a viable S&OP process for our business



# Forecasting

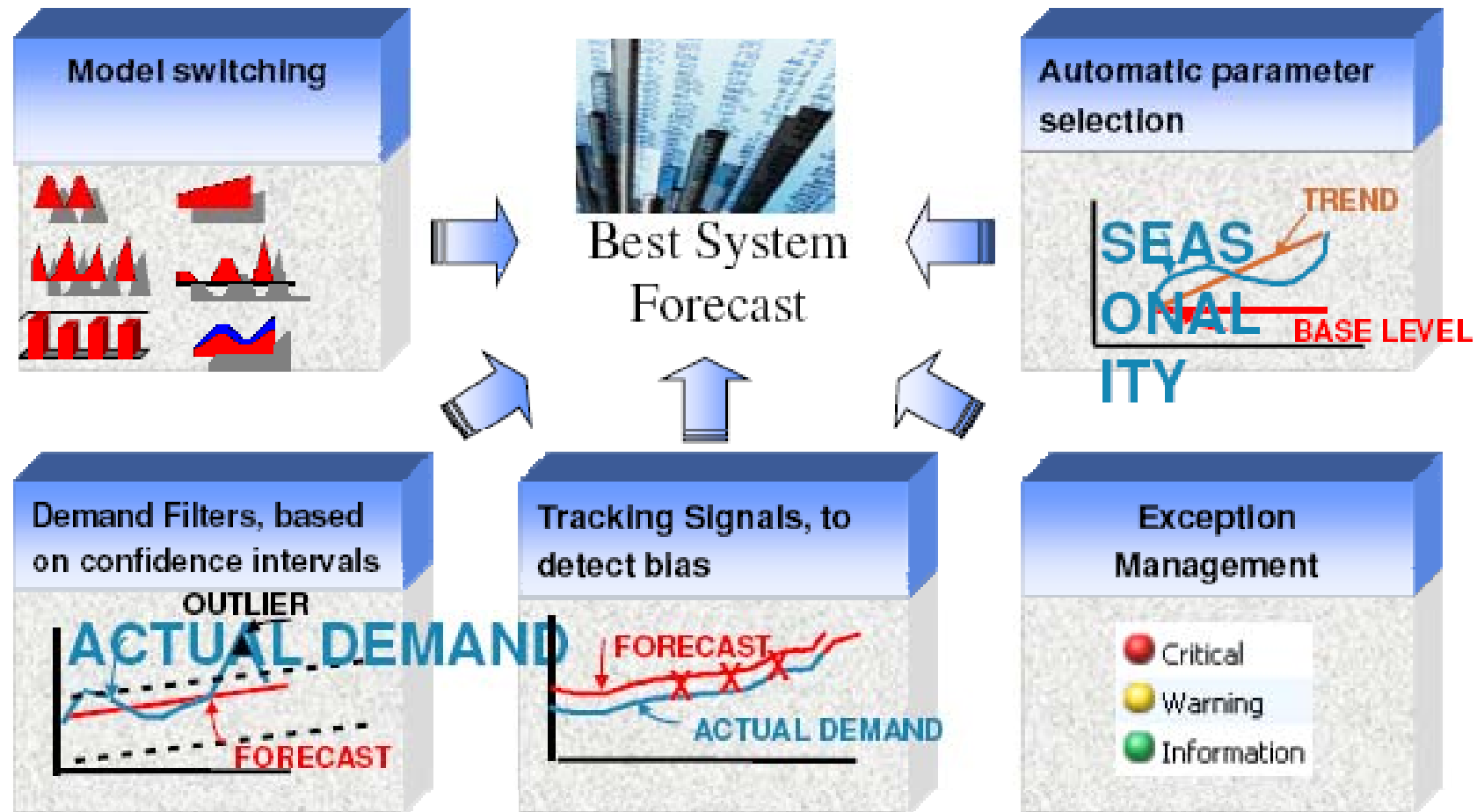


# Overall Process Flow



*Nobody expects more from us than we do®*

## Creating the forecast – items that go in



- Best-fit forecast model selection
- 18 month System-generated forecast for each location
- Forecasts for items/branches and higher levels of aggregation in the Pyramid
- 2 Forecasts
  1. Locations own forecast
  2. Disaggregated forecast based on aggregate demand
- Management by exception
- Promotion Demotion
- Can override demand and forecast
- Exceptional demand via “filter factors” – automatically filters out both high and low exceptional demand
- Complete audit trail created with reason codes for demand/fcst overrides

- Data, Data, Data
  - Historical Demand
    - Do not underestimate the complexity
    - Cleansing history
  - Master Data
    - Dealing with inconsistencies
- Dedicated core team with key skill sets, including IT resources
- Project Management
- Avoid scope creep
- Prepare for unknowns
  - Add in buffer time to timeline
  - Do not commit until certain of the outcome
- Forecasting is as much an art as it is a science