

# Procter & Gamble, Meijer, Target, Wal\*Mart, Sainsbury, and Tesco

## Introduction

The following summarizes the objectives, methodology, measurement and learning from the CPFR pilots undertaken with Procter & Gamble. Due to the sensitive nature of some of the systems work underway, only certain customers are specifically associated with measurements and learning.

These pilots all contributed to establishing a standardized start-up process for implementing CPFR. The partnerships provided input into the creation of the *CPFR Capability Assessment*, which establishes the baseline evaluation of the partnership's four core CPFR processes in 18 key elements that are scored. Completing the *CPFR Capability Assessment* allows a quick understanding of the strengths and weaknesses of the partnership and actions needed to improve the process. See *Appendix A*.

The pilots demonstrated that CPFR is **not** simply another form of category management. Deployed as prescribed in these pilots, CPFR becomes the key essential process to begin *optimizing the supply chain*. The focus of these pilots is not simply to sell more product to the retailer's distribution center or depot; it was on selling more product to the consumer by concentrating on delivering product efficiently and reliably to the retail shelf using retail point-of-sale data.

Read on, and gain an understanding of CPFR from these state-of-the-art retail distributors in the U.S. and the U.K.

## Procter & Gamble Worldwide

Procter & Gamble has operations in more than 140 countries with over 110,000 employees, and with worldwide net sales greater than \$37.2 billion (1997/98). Its 300 brands reach nearly five billion consumers. Procter & Gamble's seven Global Business Units include baby care, beauty care, fabric & home care, feminine protection, food & beverage, health care, and tissues & towel.



#### 4.4 Procter & Gamble Pilot Overview

#### CPFR Processes Addressed

- *Collaborative Processes*
- *Integrated Planning and Forecasting Processes*
- *Replenishment Processes*
- *Supply Chain Management Processes*

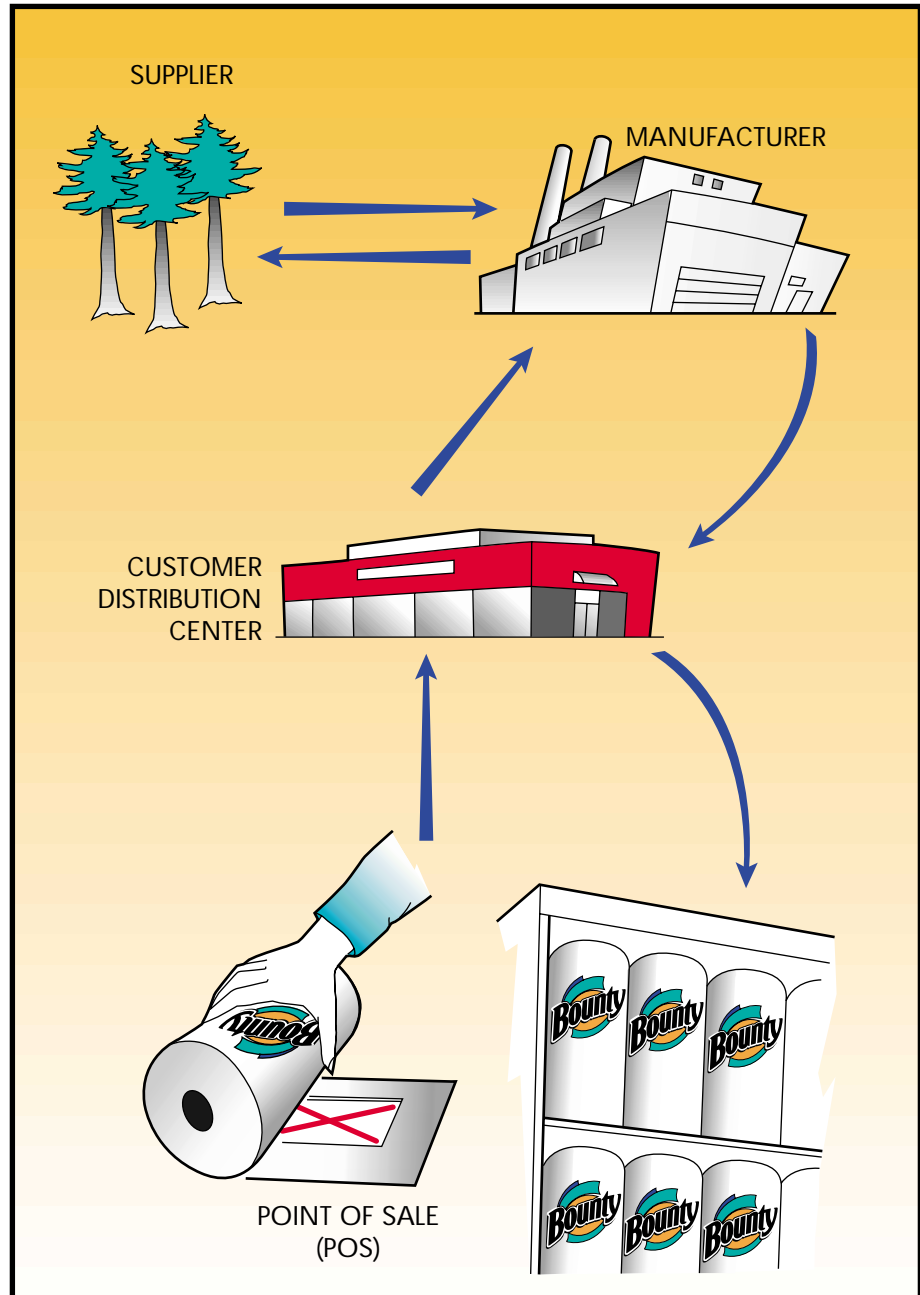


Figure 12

## Objectives

Procter & Gamble's CPFR focus is to build on the current success of the Continuous Replenishment Program (CRP). CRP has delivered greater than 99% service levels, and has reduced customer distribution center inventories by as much as 50% in customers representing over 40% of our U.S. and European businesses.

While these accomplishments are substantial, they fall dramatically short of delivering the ECR promise of products available at the lowest cost to the consumer. Conservative estimates based on published studies show 8% to 10% out-of-stocks still exist in retail stores, along with excessive inventory costs throughout the supply chain. All become additional costs to the consumer.

P&G is deploying CPFR to enable creation and integration of consumer demand data. This will trigger product flow from our manufacturing plants to our customers' DCs, from the customers' DCs to their retail store shelves, and ultimately from the store shelves into consumer homes.

The primary objective of these pilots is 100% product availability on the store shelf, while simultaneously reducing inventory requirements in the retail stores, customer distribution centers, and P&G plants. Eventually, P&G expects to produce and ship in response to a consumer demand signal. These pilots will test and validate methods that can help achieve this.

Our primary CPFR output concentrates on **improving inventory** and **reducing out-of-stocks**. Traditional supply chain management decreased one but forced the other to increase; trade-offs were made to deal with the lesser evil.

**CPFR recognizes that the main causes of these two evils are identical:**

- 1. Ineffective trust-based collaboration.*
- 2. Ineffective planning using visibility of POS consumer demand.*
- 3. Ineffective forecasting.*
- 4. Ineffective product replenishment in response to demand fluctuations.*



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Each of the four causes builds on the preceding cause. Inventory or out-of-stocks result when a supply source does not respond to fluctuations in product demand. CPFR should make it possible to manage a continuous flow of product with no delays. Achieving this is the essence of ECR.

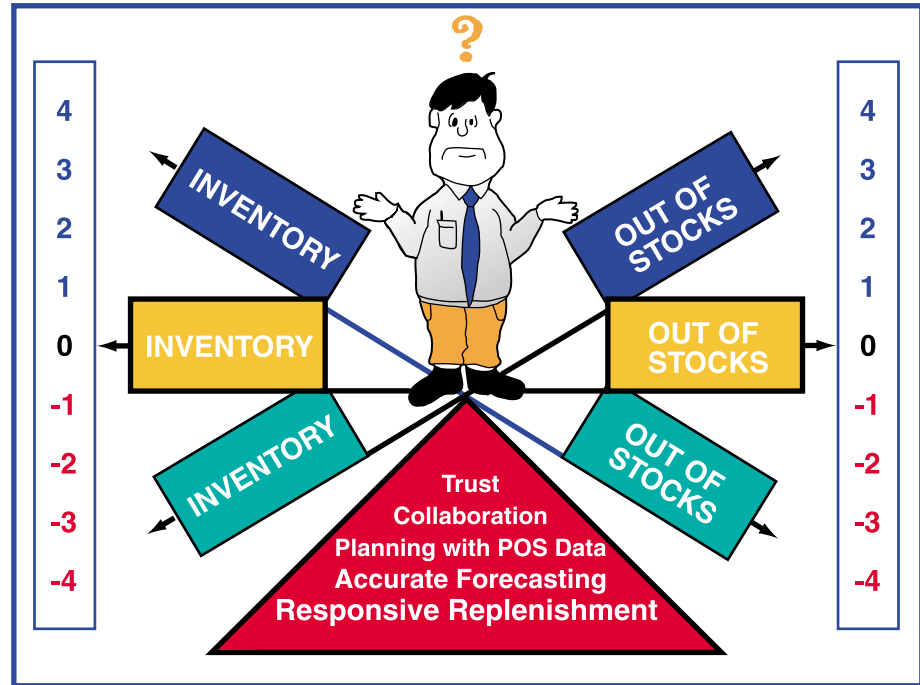


Figure 13



Figure 14

## Methodology

The ongoing objective of the CPFR pilots is to test and validate the design requirements and the changes needed to create a responsive, reliable, and cost-efficient system that links manufacturing plants to customer DCs to retail store shelves using POS information.

The key is understanding that CPFR is not a technology. It is a process. To test and deploy new processes, our CPFR pilot partners agreed to three core activities:

- 1. Document and map the current supply chain processes for product and data flow.*
- 2. Assess the current CPFR capability.*
- 3. Create a joint action plan to address improvement opportunities.*

Failure to follow the three-step process in order could lead the project down a path toward unsatisfactory results. It was critical to include this process in the Front-End Agreement, obtaining top-level consensus for the pilot's strategies, measures, and processes.

Below is a brief review of the three components of our methodology. The results and learning from these components are detailed in the next section.

### Supply Chain Lead-Time Mapping of Product and Data Flow

Together, team members from both companies traced product movement and the signals that triggered it. All of the processes were mapped, and the time lag between processes and triggers was measured from the point that a package was scanned at retail to the point new product was replenished on the shelf.

### CPFR Capability Assessment

Once the partners understood the supply chain process, there was no easy way to translate the supply chain improvement opportunity into CPFR action. The *CPFR Capability Assessment* was developed and used in some pilots to assign a numeric value to each of the CPFR key processes. The actual scoring verified the understanding from the supply chain mapping, and directed the creation of a CPFR process improvement plan. Much of the information in this assessment was compiled from previous ECR Scorecard documentation.



#### 4.4 Procter & Gamble Pilot Overview

### Joint Action Plans and Testing

This step combined the first two steps into a test plan. It was documented and approved by the team sponsors, and the process improvement testing and documenting began. Historical POS data was collected on the test category (limited number of SKUs) and the POS data was continuously analyzed using actual orders and shipments.

### Metrics

**The pilots measure aspects of nine elements:**

- 1. Forecast Accuracy vs. Actual Orders***
- 2. DC Service Level and Inventory***
- 3. Retail In-Stock Service Level and Inventory***
- 4. Manufacturer Order Fill Rate vs. Original Order***
- 5. Manufacturer Order Fill Rate vs. ASN***
- 6. Delivery Punctuality***
- 7. Transportation Efficiency (Utilization)***
- 8. Shipment Variability By SKU***
- 9. Profitability / Cost Reduction***

### Summary of Learning and Results

There are three categories of learning and results: General, United States, and Europe.

### General Learning

This section reviews what was learned from all of the CPFR pilots.

All CPFR pilots recognized the need for a partnership founded both on trust and on the ability and *willingness* to share information on processes and systems. A joint learning process would lead to understanding how to improve difficult-to-improve business results. It would not be a quick action to increase sales.

The companies involved in the P&G pilots are all competitors within their respective marketplaces, yet have agreed to associate their involvement in the CPFR pilot with P&G. This demonstrates the importance that each company has placed on the value of CPFR to its future success. Once the processes are understood and institutionalized, a critical mass of partnership involvement between manufacturers and retail distributors will be essential.

All CPFR pilots recognize CPFR as a process, not a technical solution. To be successful, the existing process must become either simplified, streamlined, or standardized. Once this is accomplished, the process needs to become repeatable and scalable so technology can deliver broad-scale capability. *If an existing process is delivering average results, technology will enable broad-scale mediocrity.*

At the time of this report, each pilot was in a limited test using limited technology. For this reason, most of the sharing of learning and results focuses on general process changes. Specific references to internal proprietary opportunities, processes, and systems have been avoided to protect the confidentiality and to maintain the trust that made these CPFR pilots possible.

### **Lead Time Mapping & Capability Assessment Learning**

All partnerships agreed on the need to reduce retail out-of-stocks, while simultaneously managing the inventory levels required to remain in stock. Lead-time process mapping offered the fastest understanding of the supply chain processes and their results.

The value of this analysis was directly proportional to the detail of the documentation, which highlighted where product movement was delayed and pinpointed its causes. Non-value-added activity is anything the consumer would be unwilling to pay for, and the process provided insight into the non-value-added activity in customer and manufacturer systems and processes. The activity was charted; before/after time analysis identified the loss for each delay.

At that point, both partners had a clear picture of their supply chain. Objective decision-making about process changes could begin.



#### 4.4 Procter & Gamble Pilot Overview

The results of the process mapping indicated a lead time range of 8.5 to 14.0 days to replenish product. Variability in the supply chains were due to these key factors:

- Production Frequency
- Delivery Frequency
- Order Frequency
- Sequencing of communication processes (batch mode or overnight)
- Order Multiples
- Case, Unit Load, and Truck Load quantity requirements
- Product Mix requirements
- Delivery Lead Time
- Delivery Frequency
- DC Product Flow Through To Retail Store
- Product Flow From Back Room To Shelf

In the very early stages of most P&G CPFR pilots, it was feasible to remove at least one day from the entire replenishment cycle. In the case of the 8.5-day cycle, this represented nearly 12% improvement. In other instances, at least 20% replenishment cycle time improvement was identified.

The *CPFR Capability Assessment* was a new concept introduced at the time of this report, and it was not completed by all of the pilot partner companies. The method found most productive was to have the manufacturer team members reach consensus on the scores separately from the retail customer team. Once each company reached its consensus, the two companies reviewed each question together to agree on the score. Primary differences were documented along with the rationale for each score.

This assessment process identified areas that needed immediate attention or that could be sequenced later in the CPFR process improvement. Two important concepts were critical to understanding:

1. All four activity areas must be maximized to fully realize CPFR benefits.
2. Partnering companies must have the flexibility to decide process priority.

### **U.S. Learning**

U.S. customers generally scored highest in the area of Replenishment Processes in the *CPFR Capability Assessment*, and view this area as a strength. It was decided to focus initially in this area or in combination with Collaborative Processes. Each customer used active views of POS data for their logistical replenishment processes.

Promotional systems and processes for these retail distributors are completely separate from daily replenishment (turn) systems and processes. Normal daily turn demand volume is stable and predictable, so the complexity for both the retail customer and the manufacturer is to determine the demand for promotions. Numerous unique promotion systems depend on the type of merchandising.

Production scheduling does not look at the demand streams separately. A case of product rolling off a production line does not care if it is for a promotion or regular turn—it is heading for a customer's retail store. Yet in order to determine the total demand volume to be produced, the turn and multiple promotion demand streams must be aggregated into a single production schedule. Therein lies an opportunity to understand and simplify processes.

Most retail distributors handle promotion product differently from the turn volume in their distribution systems. This creates unique opportunities to understand the impact of dual processes on the measures of inventory and out-of-stocks. As these pilots progress, the CPFR results will be documented.



#### 4.4 Procter & Gamble Pilot Overview

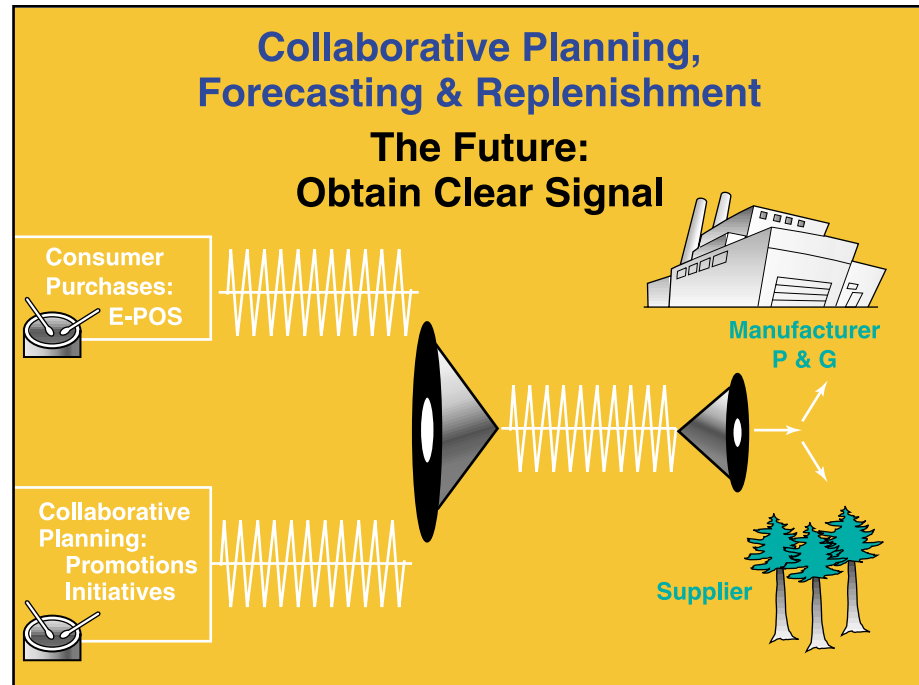


Figure 15

#### Europe Learning

European pilots are leading a global effort by focusing on Promotion Management as key to CPFR process improvement. Tesco and Sainsbury in the UK have actively employed Internet-based data exchange technology to assist robust planning processes in managing promotion creation through evaluation. Tesco has aligned with General Electric Information Services (GEIS) and Syncra while Sainsbury is in partnership with EQOS. These partnerships are working on four promotion processes:

- 1. Promotion Proposal/Planning**
- 2. Joint Forecasting**
- 3. Execution/Demand Control (using daily POS sales/inventory data)**
- 4. Promotion Evaluation**

Each UK CPFR pilot seeks to improve inventory and out-of-stocks by engaging in the Collaborative Processes and the Integrated Planning & Joint Forecasting Processes described in the *CPFR Capability Assessment*. These Internet-based collaborative systems combine and manage the customer's internal demand-data

streams and enable on-line interactivity between the retail distributor and the manufacturer. This gives immediate access to data as the forecasts become actual sales activity during a promotional event.

The impact of this visibility on business processes and responsiveness was felt on the EQOS system, where a promotion was being monitored. The system reported a reduction in the in-store availability from 99% to 88% with sufficient lead time to respond. The on-line view of promotional status saved three to four days of out-of-stocks.

On-line functionality enables efficient on-line input to the promotion proposal and joint planning process. As the jointly planned event evolves, the system captures the latest changes, eliminating confusion or miscommunication. Finally, since the system monitors promotional sales progress, the results can be saved and referenced for future event planning.

Forecast accuracy improvement of 20% has been recorded from this on-line promotion management process. Work is underway within P&G's internal demand-planning processes to use the functionality now available from these customers.

In Germany, early CPFR pilots focusing on Integrated Planning & Forecasting Processes have dramatically improved forecast accuracy results with two different retail customers. These pilots experienced 40% forecast accuracy "hit" improvement within the +/-15% range.

## Technology Used

### EDI Usage

1. EDI 830 information received:
  - Order & sales forecasts
  - Aggregated at DC & corporate levels
  - Containing promotions with turn volume or just turn volume



#### 4.4 Procter & Gamble Pilot Overview

2. EDI 852: for DC withdrawal information to proportion DC forecasts for the data aggregated to a corporate level

#### **Data File Sharing**

1. POS data is downloaded from extranet sites to use with sales planning and execution
2. Diskettes of POS data compiled weekly

#### **Software/Internet Applications**

1. *Excel* to manage the data analysis
2. *EQOS Collaborator*
3. *GEIS (TIE)*
4. *Retail Link* (Wal\*Mart)

#### **Resources Involved**

##### **P&G**

1. Overall corporate champion/sponsorship team
2. CPFR Project Managers: Business and Technical
3. Customer Business Development Team:  
Sales Account Executive, Logistics, Systems and Retail Operations Managers.
4. Data Analysts: Two analysts for formatting and evaluating the 830 order forecasts and the POS data received separately.
5. Category Demand Planner

##### **Customers**

1. Company Champion/Sponsor
2. Overall Project Leader
3. EDI Business and Technical Managers
4. Demand Forecasting Managers
5. Category Manager/Purchasing Manager
6. Warehouse & Retail Operations Managers