

# Forecasting & Planning in the Food Industry

A recipe to make it light!

Planning & control solutions  
in leading organisations

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A recipe to make it light!

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Our special recognition goes to the members of the food & FMCG  
knowledge network. The white paper reflects the findings of interviews  
with the 22 participating companies.

Planning & control solutions  
in leading organisations

An EyeOn white paper

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# Management Summary

*Over the last years forecasting and planning in the food and FMCG industry has become ever more challenging. Companies are spending considerable time and resources improving the quality of the forecasting and planning processes and hence the quality of the output.*

With this in mind, EyeOn has launched a knowledge network where companies in the food and FMCG industry share experiences and best practices on planning and forecasting. As a starting point for this network, interviews have been conducted with all participants to determine the current status in the industry.

The interviews were conducted between March and June 2006. Since representatives from various parts of the value chain participated, good insight in the specific forecasting and planning issues throughout the industry could be achieved. In a network meeting in June 2006, the participants gave their feedback on the results of the survey and on a number of statements. This has been included in the white paper.

This paper first describes the industry dynamics which puts high demands on forecasting and planning. In the second part, the key issues in business planning processes are identified: one number planning, promotion planning, upstream collaboration, the involvement of marketing and sales in the forecasting process, capacity bottleneck resolution, new product introductions and performance management were mentioned by the participants as most significant.

Based on these issues 10 key ingredients are presented that guide the implementation of responsive forecasting and planning processes in the food industry. Together they compose a recipe to make planning and forecasting light!

## Participating companies:

Aviko  
BASF  
Coca Cola  
DSM  
Friesland Foods  
IFF  
IOI – Loders Croklaan  
Heineken  
Grolsch  
Heinz  
Kloekner Pentaplast  
LU/Danone  
Masterfoods  
Perfetti van Melle  
Purac  
Quest  
Sara Lee  
Suiker Unie  
Tetra Pak  
Unilever  
Vion Food Group  
Vrumona

# Industry dynamics

Over the last decades the food industry went through big changes. The consumer market becomes more challenging on aspects like availability, freshness, price, traceability and service. The retailer demands effective replenishment systems to fulfill the dynamic customer demand at lower costs. Retailer price wars increase pressure on prices, while at the same time product life cycle times get shorter, the business becomes more promotion driven and the retailer ever more introduces private label products.

Developments at the supply side, as the increase in cost prices for basic raw materials and the bigger pressure on asset usage, create a pressure on the food and fast moving supply chain. Supplier consolidation and the global and regional transfer of manufacturing lead to longer lead times and require a superior coordination of business activities. A lack of upstream collaboration means undesired high capacity and stock buffers.

Managing time-to-market and especially time-to-volume is very difficult because of demand uncertainty, but is at the same time critical for the success of a company.

In the EyeOn research on planning & forecasting the participants elaborated on these dynamics. In addition to already existing initiatives between retail and manufacturing (e.g. ECR, CIES) this research focuses on planning and forecasting in companies positioned in the chain between the agricultural & petrochemical industry and the retail and out of home sector. It includes international food manufacturers, food processors, packaging manufacturers and ingredients/fine chemicals producers based mainly in the Benelux. Herewith a focused and consistent set of companies is covered.

An overview of the value chain and some of its main players are shown in figure 1.

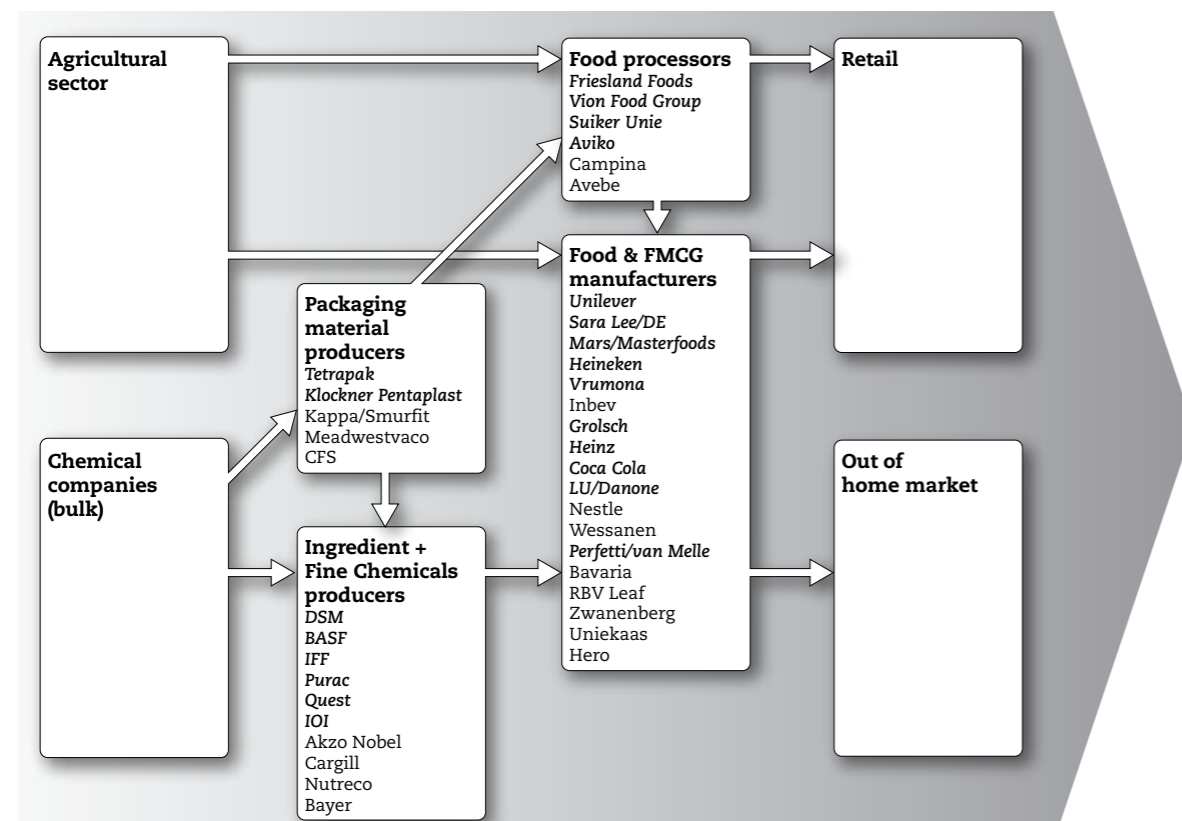


Figure 1. Overview of the value chain and some of its main players

## Demand trends

Many companies across the food value chain have difficulties in predicting changes in their demand. This can be explained by the following demand trends.

### Strong price erosion

Although price erosion is a trend in many industries, the Food and FMCG industry faces erosion never seen before. The price war in Dutch retail is a striking example and influences the complete value chain up to ingredient manufacturers and suppliers of packaging material.

05-01-2006 – ‘Grolsch stops deliveries to Ahold’

27-06-2005 – ‘Coca Cola strikes back in battle with Superunie’

Conflicts between A-brands and retailers get heavier and are published openly. Although collaborative initiatives like

Efficient Consumer Response (ECR) have existed for several years already, the success of these initiatives is limited and the traditional barriers between trading partners still exist.

Many of the trends that are described hereafter have a relation with or are intensified by price erosion.



Figure 2. Turnover top 100 brands NL

### The rise of private labels

Being close to the customer, retailers put more and more effort in developing their own brands and products. In 2004 the supermarket sales of the 100 biggest brands went down by 6 percent. The market share of these 100 brands in supermarket sales decreased from 27.5 % to 25.8 %. In 2005 the effects of the price war were not as strong as in 2004. But according to research by Laureijsen and Karels (2006), private labels still increase their share.

Next to the discussion on copying packaging and images, also shelf space and the product location on the shelf are used by the retailer to position his brand against

the well-known A-Brands. Also quality is no longer the difference between an A-Brand and a private brand. Marketing and image are the distinguishing factors for A-brands. Consequence is that most A-brand manufacturers further focus on the key competences of marketing and new product development.

### Consumer tendency to more variety, freshness and healthy products.

Consumers get more demanding on aspects like availability, freshness, price and service. A consequence of the need for fresher products is that supply chains become more sensitive and therefore need closely coordinated logistics.

Consumer behavior is becoming less predictable. We all know that ‘the’ customer doesn’t exist and that wishes and demands depend on lifestyle but also clearly depend on situations and events. Customers can not be just categorized into customer groups. They make up their mind depending on a situation and not always in a rational way. A random customer can go out shopping and can easily combine micro wave food for Monday evening with an extensive shopping list for home-made haute cuisine dinner consisting of e.g. Southern Spanish olive oil, Parma ham and a freshly made (or ready-to-go) tiramisu. Many consumers make last-minute decisions and are heavily influenced by promotions or new appealing products.

### Demand variability caused by promotions/customer specific products

Traditionally the food industry always experienced a severe impact from promotions on sales volumes. To differentiate from competition account management more and more agrees on detailed promotion plans with customers and more and more on developing products which are specific for one (retail

**A food manufacturer:**  
‘Developing new products is ever more important and the pressure to make a fast return on investment is higher than ever before, because of the fast reaction time of private labels’

### An ingredient manufacturer

'When the impact of promotions isn't clear at a food manufacturer himself. How could I as supplier take such an action into my plans?'

a big challenge in forecasting the real effect of a promotion still exists.

When promotions are not dealt with correctly, the so-called bullwhip effect is often experienced at upstream suppliers leading to unnecessary warehousing and interest costs and high obsolescence risks.

### Short product life cycles and more new product introductions

One of the ways to increase margins is the introduction of new products with higher margins. In 2005, after a period of cost-

### A food manufacturer:

'We face more frequent and extensive NPIs. Some introductions require complete new supply chains and involve big risks'

cutting and brand rationalization, the focus shifted again to introducing new products. A- Brand manufacturers are trying to position themselves as exclusive again. Every A-Brand that invests in introductions tries to generate return on its investments as fast as possible. But the outside world has changed. Reaction time of private labels is fast (partly using exactly the same co-packers/toll manufacturers as the A-brands). As a consequence, innovations have shorter pay-back periods. Private labels start their own innovations, sometimes even faster than A-brands.

or out-of-home) customer. Marketing increasingly invests in customer intimacy and tries to capture and measure the impact of promotions and price sensitivity. Despite these developments,

Every A-Brand that invests in introductions tries to generate return on its investments as fast as possible. But the outside world has changed. Reaction time of private labels is fast (partly using exactly the same co-packers/toll manufacturers as the A-brands). As a consequence, innovations have shorter pay-back periods. Private labels start their own innovations, sometimes even faster than A-brands.

### Changing sales channels/markets

Two general trends can be recognized: the growth of the out-of-home service channels and the trend towards Eastern Europe.

Many companies try to add more value to their base products and to reach the customer in restaurants, gasoline stations, etc. We see a rising importance of the out-of-home market (EFMI 2005), which is often used to brand the products with the hope that the consumer will buy the same brand in the supermarket.

The trend towards the East is both a market and a supply trend at the same time. With Eastern European countries developing and gaining wealth, food manufacturers find new markets for their products. The same is true for Asia but with the difference that it is developing a demand and supply market on its own. Although up to now, many products (mostly semi-finished products) from Western Europe have been transported to Asia, more and more Food manufacturers invest in South-East Asia by building own plants, setting up local distribution networks, or establishing alliances with local manufacturers.

### A FMCG company:

'Trend towards out-of-home gives us the possibility to promote products in a different way, hoping that the customer will buy the same product at the retailer's'

## Supply trends

In an environment with a very demanding end consumer, supply tends to follow developments downstream. The supply trends identified in the EyeOn survey are elaborated on in this section.

### Increasing prices of raw materials & energy

Upstream, the dependency on oil related chemical products is high, especially for the more upstream companies. Many have a cost price structure where both materials and energy have a big impact on the total cost price. The oil price development in the last 2 years cannot be compensated by a steadily 2-3% efficiency gain per year. Moreover, the extra costs can not be just transferred to the downstream companies because of the price pressure that they experience from retail.

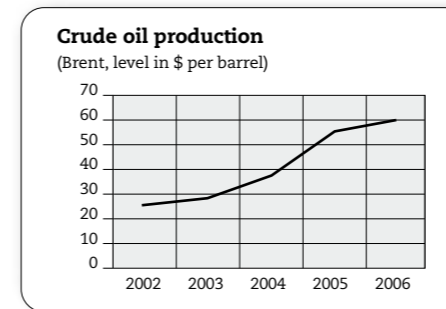


Figure 3. Oil price development on a year level (Source CBS)

### Pressure on capacity utilization

Upstream capital investments are typically larger than downstream. Some companies in more process oriented environments are working 24/7 schedules in a system where only utilization grades above 90% generate profit. Strategically, the success of this kind of manufacturing organizations fully depends on the effectiveness of the organization to optimally use their plans and forecasts for the best possible resource allocation. Given the time horizon for these capacity decisions and the vast demand uncertainty, scenario planning is a key element. Companies in less capital intensive industries are typically working in 3 or 4 shift systems. Here it is possible to make flexible use of the workforce. Up to 20% flexibility can be organized if workforce availability is optimally planned (e.g. a 3 shift system with 14 shifts from Monday morning to Friday evening can be geared up with 1 shift and geared down with 2 shifts realizing

a 20%+ flexibility). Due to smaller ordersizes and the requirement to deliver just-in-time optimal use of capacity is increasingly important for these companies as well.

### Concentration/consolidation of suppliers

Companies grew into multinational producers and co-packers, focusing on production excellence and economies of scale, consolidated into less but bigger companies.

Together with the pressure on capacity utilization, this also leads to dynamic in- versus outsourcing decisions. A-brand manufacturers with idle capacity shift production in-house to use existing capacities in the best possible way. Food manufacturers and co-packers with excess capacity rationalize their supplies by closing factories and develop themselves in European sourcing organizations. General consequence being that, with a higher level of utilization, planning and forecasting get more attention on all levels.

### From supply/capacity driven to demand orientation

Retail demands high service levels and continuous stock replenishment. Upstream companies experience these needs through the food manufactures and have the general impression that the pressure from the end customer is 1 to 1 translated upstream. Because synchronization of demand is still limited, flexibility demands towards packaging firms and ingredient producers are experienced as higher than ever before. Just-in-time (JIT) deliveries are still often realized by holding extra buffers in capacity and stocks. One of the consequences is that more companies no longer operate with a standard make-to-stock (MTS) system but with a hybrid make-to-order (MTO) – make-to-stock (MTS) strategy. An important planning decision is which products should be manufactured to stock and which ones on order and, how to allocate capacity and raw materials among the various products.



**(Global) transfer of manufacturing**

In contradiction to many other industries, the food value chain will always have a (partly) regional character because of limited shelf life and the fact that for many products the value density is so low that lower costs structures do not justify a global transfer. However, this is not true for all products. A manufacturer with products with a high value per unit centralized his production of one category to Asia because of low cost. Specific food products with medium term shelf lives can be transferred regionally (Eastern Europe) without an impact on quality or safety. The interviews clearly indicated that the rising demand in those regions is the primary reason to start up local production facilities.

**A FMCG manufacturer:**

‘Production is transferred to low-cost countries in Eastern Europe and the Far East, decisions depending on shelf life and value density’

In any case the task of coordinating product innovations, manufacturing, logistics (longer lead times when sourcing is global) and marketing and sales activities that are scattered around the world becomes more difficult; forecasting and planning play a pivotal role in this.

**Difficult time-to-market and time-to-volume**  
In a market dominated by continuous innovation and short product life cycles, the player launching a new product first, i.e. the player with the shortest time-to-market, has a serious competitive advantage that will be difficult for its competitors to make up for. However, to leverage this head start it is just as important to be able to fast upscale the supply of a new product to levels of mass production. If a company does not manage

this so-called time-to-volume properly, it may find itself left behind empty-handed, while the competition conquers the market.

Unfortunately, in the early stages of the production of a new product in the food industry the uncertainty of success is high. Although initial volumes are agreed with retailers to fill up the shelves, the success of the product is hard to predict. With the batch-like processes in many parts of the value chain, both out of stock and obsolete are an obvious consequence.

**So what! The impact on forecasting and planning**

Demand in the Food & FMCG industry is volatile and difficult to predict. On a macro level product demand is relatively stable. Due to price development, the rise of private labels, the big impact of promotions, new product introductions and changing distribution channels and markets, the demand for individual product categories shows large demand swings and is difficult to predict.

Supply uncertainty is driven by the constant search for efficient methods of gaining competitive advantage by the optimal use of resources. Due to the ongoing pressure from retail and still existing production overcapacity, the industry is consolidating activities. Manufacturing companies are forced to rationalize and, with the growing need for product innovation and marketing activities, their profit margins are under high pressure.

When the pressure would only be from the demand side, delivery performance could

be mastered by implementing flexible value chain solutions, by reducing manufacturing lead times or increasing supply flexibility. On the other hand, if supply is not reliable but demand is highly predictable, extra buffers (inventory or capacity) can often be carried, based on an accurate forecast, without much risk of obsolescence. But what, if the pressure at the supply side is so high that buffers have to be decreased?

The situation that results in this case, can be explained by visualizing 4 balloons with air connected with tubes, so the air can flow from one balloon to the other. When one balloon (e.g. delivery performance) is squeezed, the air flows to the other ones. When all 3 balloons

at the outside are squeezed the central one in the middle (read forecasting and planning) has to absorb all the air.

In the food value chain all outer balloons are squeezed (less excess capacity, more pressure to reduce working capital and fewer possibilities to deliver customers in the way the supplier prefers). The consequence is that forecasting and planning is of eminent importance and plays a pivotal role between demand and supply! This is shown in figure 5.

In the next section the key issues in forecasting and planning in the Food and FMCG industry are outlined.

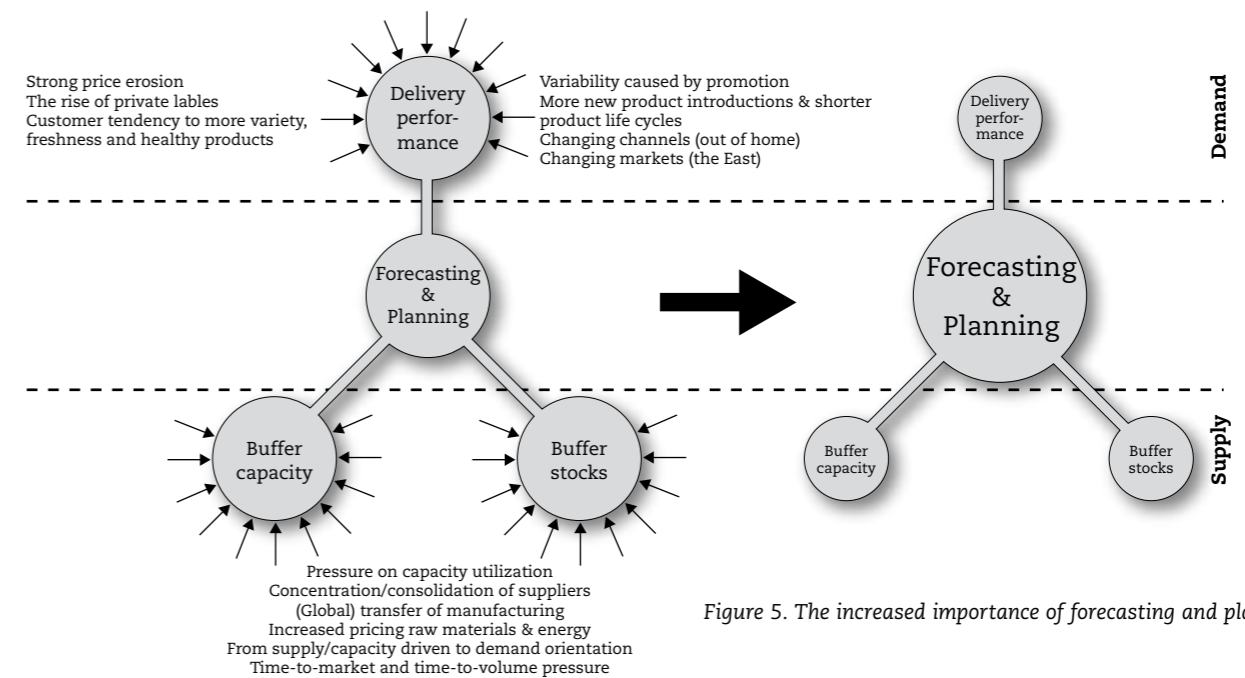


Figure 5. The increased importance of forecasting and planning

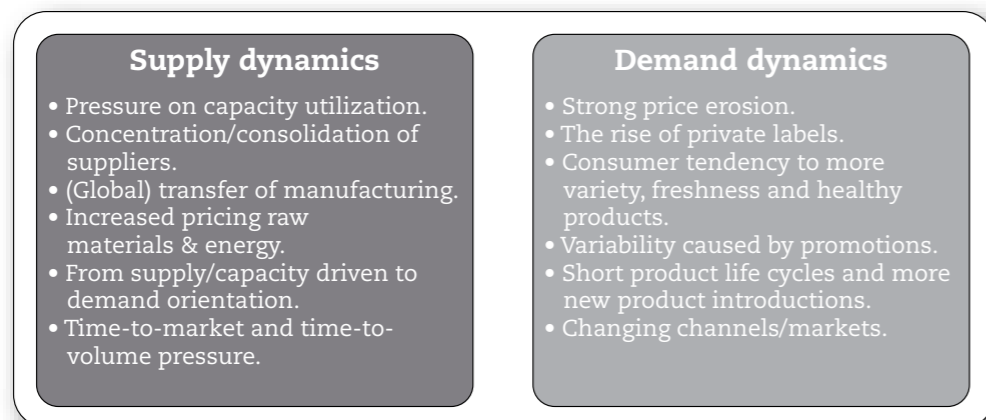


Figure 4. Summary of industry dynamics

# Key forecasting & planning themes in the food value chain

Companies in all kind of industries recognize the need to improve their forecasting & planning processes. For today's food companies, the major challenges as described in the previous section put extra pressure on this need: improving forecasting & planning is vital to survive.

Improving my S&OP process will bring more profit for my company



In this respect the position of tactical planning in the very common classification of business planning (strategic, tactical and operational planning (Gupta and Maranas, 1999)) is crucial. Decisions on the tactical horizon are related to the question if the company is still on track for its strategy and if corrective (operational) actions are required (Figure 6). This is related to the development of the market, price developments, potential business scenarios, customer plans and resource/capacity adaptation. Tactical planning is the link between operational planning and the strategic direction. In a highly volatile market, the outcome of this process largely determines a company's success. Decisions have to be taken on resource allocations: is new product development working on the right products,

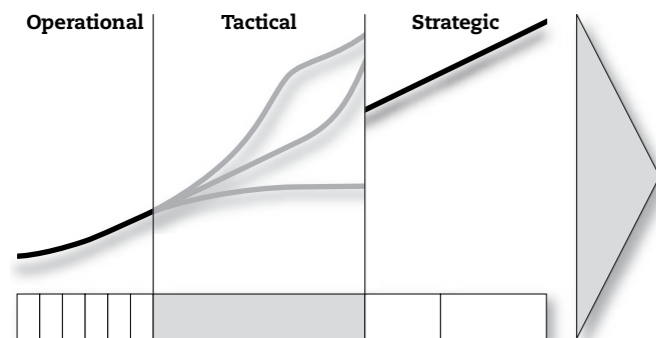


Figure 6: Tactical planning as the link between operational planning and strategic direction

- **Accounts/markets**
  - Right customers
  - Market shares
  - Promotions
  - Scenario's
- **Capacity**
  - Capacity utilization
  - Actions required?
- **Product Development**
  - Developing right products?
- **Financials**
  - Does the plan deliver the agreed financial targets?

are the correct customers/ markets being targeted, are the correct capacities installed in the production sites, do we have the correct promotions planned, does this deliver the expected financial value?, etc.

For many companies this critical tactical planning process is the most challenging to implement. To investigate the focus areas in the food & FMCG industry, a number of forecasting & planning topics, 25 in total, have been identified. The participants of the Food knowledge network have indicated the perceived relevance of each topic for their company (from totally not relevant (1) to extremely relevant (5)) and indicated their current status and vision regarding these subjects. A few topics were clearly scoring very high for most companies, while other topics showed clear differences between the more upstream companies (packaging and ingredient manufacturers) and downstream companies (food processors and food manufacturers). The table below shows these key forecasting & planning themes and their average relevance, both upstream and downstream.

### One-number planning

The participants of the EyeOn survey rated the integration of plans over different entities and different functions as a vital forecasting and planning topic.

Who does not know the occasions where managers are confronted

#### A food manufacturer:

'Interaction on sales developments & price setting at demand site and consequences on operations planning can be improved massively!'

Topic	Upstream (ingredient / packaging manufacturers)	Downstream (food processors / food manufacturers)
One-number planning	4.5	4.5
Promotion planning	1.4	4.6
Upstream collaborative planning	4.0	3.5
Marketing & Sales involvement	4.6	4.4
Performance management	4.3	4.1
New product introduction	3.7	4.2
Capacity bottleneck resolution	4.6	3.6

Table 1: Upstream and downstream relevance of key forecasting & planning themes food industry

with differences between forecasts of the sales force, logistics estimates of the future and the annual based forecasts of the finance department? In order to perform, every company has to integrally manage its functional objectives. This can only be established when the key functional planning processes are aligned into one multidisciplinary business planning process. One planning heartbeat, involving all relevant functional areas with their functional responsibilities in one planning process around one set of shared targets:

- Supply chain management / logistics, responsible for supply demand balancing, translating demand into supply, production and purchasing plans,
- Marketing & Sales, optimising sales and market shares by creating and developing markets, grabbing sales opportunities and managing customer demand via promotions and pricing,
- Finance, managing margins, profitability, returns on assets and income from operations.

But also e.g.:

- Product development, developing new product offers and enabling in time market introductions
- Procurement, steering the availability of ingredients and packaging at market conditions.

The benefits of 'one number planning' are clear for most people working in supply chain management. All network participants believe that Marketing & Sales, Finance and Operations should not create their own plans. However for sales the benefits are not always that evident (see figure 7), which makes implementation of 'one number planning' not always easy.

#### A food manufacturer:

'S&OP gets more and more important. Not only to steer operational processes but also to create financial stability towards shareholders'

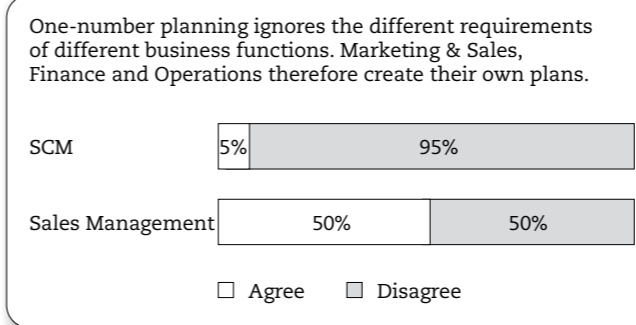


Figure 7. Different opinions between SCM and Sales Management; source: EyeOn (2006)

**Promotion planning**

As stated before promotions are a fact of life in the food industry. This is specifically true for the food manufacturers but indirect also for their suppliers. The biggest challenge is to anticipate and manage each promotion in the most effective way. Especially for promotions, the effects of a badly managed forecasting and planning process, like excess stock or stock-outs are severe.

It turns out that it is very difficult to predict promotional sales accurately. In an attempt to improve forecast accuracy, only a few companies clearly differentiate in their forecasting process between so-

**A food manufacturer:**

'Although the base volume is relatively easy to forecast, promotional volumes are very difficult to anticipate'

called base volume and promotional volumes. Also evaluating the effects of previous promotions is not commonly done. However, all participants from downstream companies stated that there is a need for key performance indicators that specifically measure the quality of the promotions planning process.

But even when there is basic information on promotions available at marketing and/or sales (e.g. timing and duration), this is not always aligned properly with the rest of the organization, like supply chain management and production. As a result, each promotion

**A food manufacturer:**

'Promotions information is often known at sales, but not always communicated in time to Supply Chain Planning'

can lead to a stressful situation and a lot of 'fire-fighting', like last-minute changes of production plans, chasing co-packers etc.

**Upstream Collaborative planning**

From the survey it can be concluded that downstream food manufacturers do not consider collaborative planning with their retail customers the most relevant area to start improvements at the moment. Partly, this can be explained by the fact that with retail already quite a lot of collaborative planning initiatives (ECR, VMI etc.) are done. Furthermore, 50% of the participating downstream companies experienced these initiatives not as win-win situations, but as one-way methods to force the supplier to take ownership of stock or simply to intensify its replenishments. Only for information on promotions collaborative forecasting with retail is considered very useful, which is related to the impact of promotions as stated above.

Upstream, the potential benefits of process integration are seen as well by the customer (food manufacturers) as by the supplier (packaging manufacturers, ingredients manufacturers).

**An ingredient manufacturer:**

'VMI helps me to stabilize my processes'

In the past, many of the suppliers were still very internally focussed, reorganizing their internal processes. Now more and more collaborative initiatives between companies are started. VMI (Vendor Managed Inventory) is often used as a basic method for external process integration. Many ingredient manufacturers and packaging material companies see it as a means to get more stable processes and to realize more stability in their batch oriented way of producing. Food manufacturers see it as a means to secure critical ingredients or packaging materials deliveries and at the same time reduce inventory levels. To support the stock replenishment typically about 12-13 weeks of expected use information is exchanged with the first few weeks as a fixed horizon.

Collaboration between food manufactures/processors and packaging/ingredient suppliers will create win/win situations



Both downstream as upstream companies believe there is still a lot of room for improvement in this area.

**Marketing and Sales Involvement**

How to involve marketing and sales in the forecasting process and having them take ownership of the forecast is regarded a major

**A food manufacturer:**

'It is difficult to have account managers take part in the S&OP meetings'

challenge by many of the participants. This is seen as a prerequisite to generate high quality forecasts.

But many sales and marketing people simply do not feel that forecasting is part of their job. 'My job is selling, not forecasting' is an often heard statement. They are also not so familiar with ERP- or other advanced forecasting systems as supply chain management is, which makes it even more difficult to ask sales and marketing to deliver a good forecast. And asking them to forecast on SKU-level (Stock Keeping Unit) 6 months ahead does not help either...

One participating company tries to 'force' sales to forecast, by prioritizing orders for which forecast is available. However, this

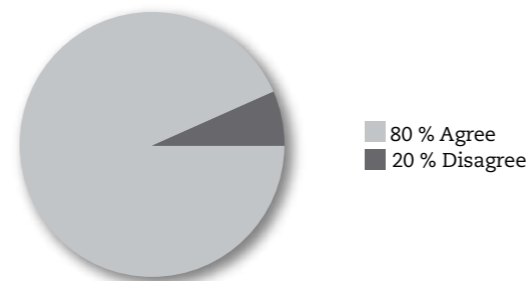
**A packaging manufacturer:**

'After linking bonuses of sales to forecast accuracy, we have seen a big improvement'

might lead to 'over-forecasting'. In another company the sales director is chairman of a formal 'forecast sign-off meeting' in which

if the forecast is 'always' too high or too low) is discussed. Some companies have tied bonuses of sales people to forecast accuracy with positive results.

Marketing & Sales involvement in forecasting can only be guaranteed when it's part of their targets and incentives



**Performance management**

A closed loop of measuring key performance indicators (KPIs) for forecasting and planning, analysing root causes between reality and targets and taking actions to structurally deal with those root causes, is not commonly embedded in all participating companies. Although forecast accuracy is measured in most companies the relation with other KPIs like service level and stocks is often not clear. Other metrics to measure the efficiency of planning and forecasting such as process throughput time, number of judgement points and data completeness are rarely tracked over time.

An issue at many companies is how to define KPIs in such a way that they really reflect the performance of the underlying processes. E.g. forecast accuracy is measured by comparing actual sales with the forecast of 2 months ago, while there is enough flexibility to cope with demand fluctuations as close as 3 weeks in advance. Comparing with the forecast of 1 month ago would make much more sense in this case.

87% of the participating companies see benchmarking as a way to bring their processes to a higher level. However, even for the most common performance indicator 'forecast accuracy' various definitions are used to measure it. The knowledge network creates a possibility to benchmark themselves uniformly with colleagues in a comparable environment.

**Capacity bottleneck Resolution**

As discussed in the first section, pressure on capacity utilization is increasing for many of the interviewed companies. Allocating capacity in an optimal way has rapidly become a 'core activity' for many food & FMCG companies, while this has not received much attention in the past. (Tactical) production planning is now also increasingly done centrally at headquarters instead of locally managed.

To solve capacity problems on the short-term in many cases an advanced planning system is used. However, for mid- and long-term planning often 'Excel-based' solutions are used, to recalculate several possible options. One of the reasons mentioned is that ERP-



systems are not always geared up for easy scenario-planning and what-if analysis or users are not familiar with it.

**New product introduction**

With the shortening product life cycles and decreasing margins the introduction of new products becomes more critical, especially for the more downstream food manufacturers. If this is not managed properly, the significant

**A food manufacturer:**

‘New products is ‘taken out’ of standard planning; is part of gap-analysis between top-down and bottom-up when making the 18 months forecast’

R&D and marketing investment might be just lost because of stock-outs and obsolescence. Like for promotions, also communication between the disciplines product development, marketing, sales and supply chain management play an important role here. Some participating companies have special Product Introduction Teams in place with people from all functional areas. In other companies new product introduction is not decoupled and is just part of the ‘normal’ planning process.

In this section, seven key forecasting & Planning themes in the food & FMCG industry have been discussed, based on the input from a large number of companies. In the next section, ten ingredients of responsive forecasting and planning processes are presented, that guide improvements in each of these key areas.



Figure 8. Key Forecasting & Planning themes in the Food & FMCG industry

# Responsive forecasting and planning: the ingredients to make it light

“What determines the recipe for responsive forecasting and planning in the food industry?”

The food value chain has to deal with the pressure on planning and forecasting due to the developments at the demand and supply side. Understanding the necessity of forecasting and planning, the question is how to organize it without installing a bureaucratic process which does not add value. To achieve this, a list of principles is presented here, based on the interview results, literature review (Aertsen, 2005) and the professional experience of EyeOn business consultants. Together they form the ingredients for a responsive and ‘light’ forecasting and planning process to effectively support business decisions.

**1**

**The objective of demand forecasting is not to predict the future!**

To design a qualitatively good planning process, we have to return to the source: why is demand forecast necessary at all? The primary objective of planning is to take accurate decisions. The process must be arranged in such a way that relevant information can be shared rapidly, efficiently and transparently within the organization (see figure 9).

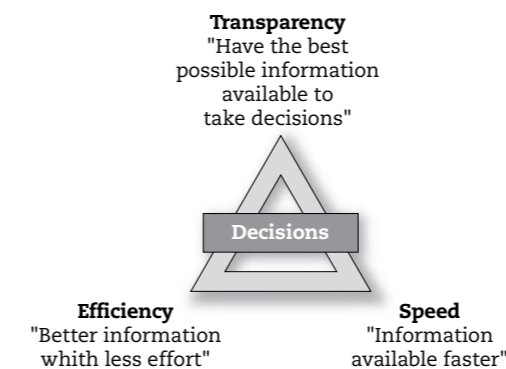


Figure 9. Forecast is about taking decisions

Fast communication on the forecast with all parties involved to support decision-making is more important than to ‘perfectly’ predict the future. It is better to forecast ‘approximately correct’ than ‘exactly wrong’!

**2**

**Focus: Forecast less!**

To be able to take decisions that are important for an organization, rapid and efficient information has to be available. The level of detail is completely depending on the need of an organization (fit for purpose).

Each company should therefore conscientiously define its Key Value Drivers as basic starting point for designing its planning process. E.g. if the usage of a bottleneck capacity determines the success of an organisation and the capacity is impacted by the need of a specific product group, this product group should get the attention of sales and marketing.

**A food manufacturer:**

‘It’s important to discuss underlying assumptions instead of the forecast numbers itself’

In a business model where the largest part of the turnover and margins are determined by promotions, it makes no sense to ask the account manager to forecast all the products for his accounts. He should focus on forecasting and planning his promotions, base-line business can be forecasted via alternative techniques, for example using statistical forecast models. In general it can be stated that a very careful evaluation should be made on what to forecast and not to run in to the trap of forecasting each and every individual item.

In other words, the energy in the forecasting cycle should be focused on the value driver instead of creating a number crunching party. The forecasting and planning challenge is to get the best info from every player into the forecast. Only ask sales and marketing to forecast for which they truly can add value!

**An ingredients manufacturer:**

‘Big ‘wins’ (new product-market combinations) determine the volatility of demand; here more accurate and timely information is needed from sales’

3

**Formalize decision-making in cross functional teams!**

An important condition for a high quality decision making process is fixing the decision-making structure into a cross-functional meeting. This must be a routine meeting which is held periodically. In many companies this is called the Sales and Operations planning (S&OP) meeting. It's important to realize this is not so much a logistics oriented meeting but that it should be viewed as an integral business planning meeting, touching every discipline in the company.

In the food industry it is extremely important to create cross-functional processes, also in discussing promotion plans and new product introductions. Best-in-class companies set up multi-disciplinary teams for promotions and special NPI project

teams to plan all aspects of a New Product Introduction.

**A food manufacturer:**

'Trust is essential. People have to share information. Buffers between operations and sales have to be taken out; this has to be resolved centrally'

16

4

**Clear responsibilities!**

A clear guideline is needed who can be kept responsible for which part of the demand forecast. It should also be clearly defined which products or market segments to forecast statistically and which to forecast judgementally. This leads to an increased involvement with regard to the quality of the demand forecast. Dedicated demand planning resources should be assigned to make certain it gets full attention from marketing and sales. Also physically locating the demand/supply coordinator in the marketing & sales office is mentioned as a critical success factor.

**A food manufacturer:**

'A cultural change is required to improve planning & forecasting. People should be more committed to the process of continuous improvement. They should also take more responsibility.'

**People should be authorized to take decisions!**

Participants in the meeting from the different functional areas must have the authority to decide. How frequently does it happen that a decision is reversed by senior management after the meeting? The authority to take the decision should be part of the meeting. In advance, a clear insight in the boundary conditions has to be prepared, so it is clear which decisions can be taken related to e.g. investment space, strategic customers.

**An ingredient supplier:**

'Planners have to be able to think in processes and have to perform at a higher level in both knowledge and social skills.'

5

6

**Appoint the business manager as chairman of the S&OP process!**

An important success factor for this meeting is the presence of a business manager who can enforce decisions in case of a dispute. Normally it is best that he plays the role of chairman. He should be able to create

**A food manufacturer:**

'Managers are needed with more multi-functional skills and a higher professionalism level'

a balance in the meeting between the interpretation of figures and trends and the business discussions which have to take place.

7

**Talk business: euros and scenarios**

Turnover and margins in euros are the common language which is spoken by all departments within the organization. In the integrated business planning meeting this must be the focus point. In best-in-class companies this is combined with talking in scenarios.

A good example is for new product introductions where different scenarios from 'best case' to 'most likely' and 'worst case' have to be considered. All financial consequences should be calculated and Logistics should deduct (volume) numbers into consequences on stock developments & capacity.

Especially at the supply side, the consequences on bottleneck capacities are of extreme importance as the usage of these capacities are the key value driver of these companies. Scenario-planning can very well be used to support the decision-making process for e.g. whether or not to invest in an extra storage tank or to reserve capacity at a third-party.

17

8

**Adapt information systems!**

Ideally the information which is necessary for the decision-making is obtained by means of a snapshot from the operational systems. But collecting data and preparing and making analyses is frequently considered as a very cumbersome and time-consuming activity. People involved in the consensus meeting often get information from several (ERP, APS) systems and combine this into Excel spreadsheets. A negative side-effect is that the

**A food manufacturer:**

'Keep systems simple'

planning meeting turns to be a discussion on the correctness of the used data. To prevent this, data collection and discussion must be entirely done outside the consensus meeting. A method for this is to appoint a person, in the form of e.g. a business analyst, to be responsible to produce the information. He should use an agreed and consistent method to easily gather the data from the systems.

**A food supplier:**

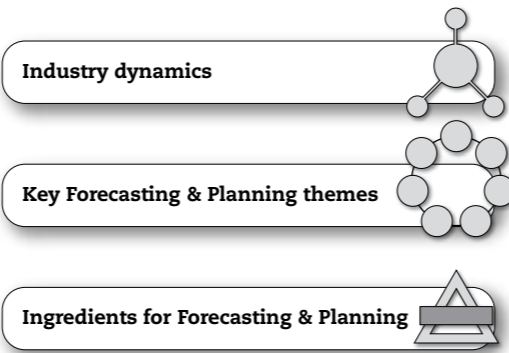
'It's essential that parameters in the system are kept up to date and controlled'

## 9

### Influence sales!

Certainly as important as planning is the follow up of the plans and steering demand. Companies often have a considerable influence on how and when the eventual demand comes in. A good example of this can be found at a supplier of meat based products. Although the supply of raw materials (e.g. pigs) is a more or less fixed figure, the sales department together with the customer can plan how many BBQ or gourmets packs can be offered (and in what mix!) to guarantee that the mix covers the supply. This process demands, however, a proactive policy with a regular harmonization between marketing department and the logistical organization. In principle, every company has a number of instruments to influence demand. One can think of price (for example in the case of standard products), promotions (e.g. in case of events like the world cup soccer) or changing the composition of the product (e.g. BBQ-mix).

*Food manufacturers, food processors, packaging producers and ingredient manufacturers experience increased pressure on both the demand as the supply side. In the battle against low margins first-class forecasting and planning are essential. Therefore, these companies are now searching for methods to improve several aspects of their forecasting and planning process. In this paper a recipe consisting of 10 ingredients is given to make it light!*



## 10

### Measure performance

Like every other process, the cycle must be closed by means of measuring the performance of the process itself and the outcome of the process. Performance measurements are part of the process and should be evaluated on an ongoing basis. Conclusions must be drawn in the form of corrective action plans. This ensures clarity and faith. Important to note is that forecast accuracy is not the only indicator which is important. The throughput time of the process, the number of times the forecast is modified by several functions, the number of FTEs which are involved in generating a forecast or the compliance with the planning calendar is certainly as important. Those elements should be measured that are specifically vital for the company involved (see ingredient number 2).

Efforts to improve forecast accuracy require investments, both human and financial, and should be approached on a return on investment basis. Therefore, companies should first assess the impact on total business performance of certain improvements and prioritize improvement projects based on this assessment.

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