MARKET BRIEF

ON

FROZEN VEGETABLES

IN FRANCE

ITC

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A. EUROPE

Product description

This market brief covers the frozen vegetables and varieties thereof that come under the following codes of the Harmonized System (HS):

0710	Vegetables, frozen
0710 10	Potatoes, frozen
0710 21	Peas, cooked, uncooked, frozen
0710 22	Beans, cooked, uncooked, frozen
0710 30	Spinach, cooked, uncooked, frozen
0710 40	Sweetcorn, cooked, uncooked, frozen
0710 80	Other vegetables, cooked, uncooked, frozen
0710 80 51	Sweet peppers, frozen
0710 80 61	Mushrooms, frozen
0710 80 70	Tomatoes, frozen
0710 80 80	Artichokes, frozen
0710 80 85	Asparagus, frozen
0710 90	Mixtures of vegetables, cooked, uncooked, frozen

Mixtures of vegetables range from simple combinations of two types of vegetable to rich, ready-to-cook, assortments of several. Fried vegetables are a family of products which covers single vegetables that have been cooked, mainly by frying.

Market characteristics

The European market for frozen products reached its zenith in the early 1990s, when frozen products were seen by consumers as a good alternative to fresh produce. From 1996, manufacturers and distributors started to see a substantial decline in profit margins. In Germany, there was no fall in demand for frozen products in favour of fresh produce, but instead an increase as a result of German reunification. Similarly, British sales of frozen products rose by 1% in value in 1997, the biggest rises coming in ready-made meals (up by 8.3%). Far from being the result of economic circumstances, the general downturn in sales (they fell by 4% in 1997) is of a structural nature. However, frozen foods and ice cream still account for around 3% of a hypermarkets' annual turnover, well ahead of hygiene and beauty products, cold meats and cheeses from the self-service shelves.

The market for frozen foods has reached maturity, as market penetration has reached 93%. It is now therefore a question of evolving from merchandising management to seductive merchandising.

Market access

The obligations to which producers and importers of vegetable products, as well as the procedures for registering them, are established in Commission Directive 92/90/EEC of 3 November 1992. The determination of import duties on mixtures and sets containing agricultural products is governed by Council Regulation (EEC) No. 3324/80 of 18 December 1980. The rates of customs duty applicable to the main frozen vegetables are presented in the following table from the *Official Journal of the European Communities*:

CN Code	Description	Conventional duty rates (%)	
		1 January - 30 June	1 July - 31 December
0710 10 00	Potatoes	15 (*ad valorem*)	14.4 (*ad valorem*)
0710 21 00	Peas	15	14.4
0710 22 00	Beans	15	14.4
0710 30 00	Spinach, New Zealand spinach and orache spinach	15	14.4
0710 40 00	Sweet corn	5.6 + €10.3/100 kg/net	5.6 + €9.4/100 kg/net
0710 80 61	Mushrooms	49	15
0710 80 70	Tomatoes	19	15
0710 80 80	Artichokes	19	15
0710 80 85	Asparagus	19	15
0710 90 00	Mixtures of vegetables	19	15

Council Directive 76/895/EEC of 23 November 1976 deals with the fixing of maximum levels for pesticide residues in and on fruit and vegetables. "Pesticide residues" are understood in this directive as the residual traces of pesticides, as well as their breakdown, metabolized or reaction products. The maximum residue levels for pesticides (MRLs) in plant products have not yet been completely harmonized at the European level; hence there may be specific application procedures in particular countries that need to be taken into account.

Trading practices

The transport and sale of frozen products in Europe are subject to maintenance of the "cold chain". This is an aspect of compliance with the customers' specifications, and entails in particular keeping the products to be marketed within a closely defined temperature range. For frozen vegetables, this is between -15° to -18° C. These temperatures must be observed at every phase at every phase in the distribution and marketing chain: during upstream and downstream transport, during storage and in the shop. Temperature sensors for monitoring cold-chain maintenance can be installed on the various distribution means. Some large distributors even put sensors on frozen food packets so that consumers can see for themselves that the procedure has been followed. Moreover, the product must be frozen within four hours of harvesting so as to preserve the vegetable's nutritional value. Potential exporters will find themselves subjected to multiple checks of their cold-chain management from production to the marketing of their products. In Europe, payments between the various participants in the frozen vegetables market are made by direct bank-to-bank transfer.

Packaging and labelling

The approximation of the laws of the member States relating to the labelling, presentation and advertising of foodstuffs for sale to the ultimate consumer is subject to Council Directive 79/112/EEC of 18 December 1978, supplemented by Commission Directive 92/39/EEC on plastics materials and articles intended to come into contact with foodstuffs and beverages. The latter directive applies to plastics materials and articles and parts thereof consisting exclusively of plastics or composed of two or more layers of materials, each consisting exclusively of plastics, which are bound together by means of adhesives or by any other means.

Many European Union countries (e.g. Belgium, France, Germany, the Scandinavian countries and the United Kingdom) encourage the use of environmentally friendly packaging so that the materials used can be recycled.

For the purpose of transport, frozen products are placed loose in large plastic bags and then put in wooden or cardboard containers of various sizes, depending on the product being transported (they usually hold up to 500 kg). They are then transported in 20-foot or 40-foot containers, mostly equipped with temperature sensors.

Sales promotion

The *Frozen and Chilled Food Yearbook* lists by country the products and activities of the main participants (e.g. manufacturers, wholesalers) in the frozen food sector in Europe. *Frozen Food Buyer* is a magazine that specializes in trade in frozen products in Europe.

The purchase of a frozen product takes 50 seconds, as compared with 39 seconds for other kinds of product. Shelf layout based on family of origin (vegetables, fish, meat) should be replaced by a layout based on method of consumption (ready to eat, no preparation necessary). Products in refrigerated compartments near the fresh-produce section attract significantly more consumers than frozen products located, as they often are, at the back of the shop.

Modernization also includes optimizing store fittings: upright cabinets should be replaced by chest freezers (a must in the central part of the section although they do little to display the products) or "reach-in" freezers with shelves and no door (a deterrent to purchase), which are more profitable per square metre and are more spacious.

Lastly, sales increases depend on greater legibility of product prices: reading the price often leads the customer to pick up the product and, in 80% of cases, to buy it. A fourth approach guiding the strategies of manufacturers and distributors is the idea of arranging the frozen food section to match the changing seasons, as is done in the fresh vegetables section.

Market outlook

The European market for frozen vegetables is a relatively stable market overall but there can be significant variations from one product category to another. There are opportunities in mixed vegetables or cooked dishes for instance.

Imports of frozen vegetables from outside the European Union were close to 100,000 tons in 1999 (*source*: Global Trade Information Services), which is less than 5% of the market in the 15 member States. Of this total, 45% are products in the 0710 80 category ("other vegetables") and come from (in descending order of importance) Switzerland, Canada, the United States of America, Japan and Norway. These are followed by "mixtures of vegetables, cooked" (0710 90), which account for 20% of imports from outside the European Union (suppliers: United Arab Emirates, the Czech Republic, Slovenia, the Russian Federation and Brazil), and "peas, cooked" (0710 21), accounting for 10% (suppliers: Switzerland, the United Arab Emirates, Saudi Arabia, Israel and Norway). It should be noted that there has been a sharp drop in imports from the Russian Federation since 1998; until then, it was one of the main suppliers from outside the European Union.

The market scan carried out by IRI-SECODIP (Information Resources Inc. - Société d'études de la consommation, distribution et publicité), giving the moving annual total on 31 March 1998, concludes that very few product families are gaining ground: one of them is cooked vegetables (+ 6.1% in volume). By volume, raw vegetables (-5.6%) and chips and their garnishes (-3.2%) are losing ground. The practicality of frozen vegetables thus appears to be their strongest selling point. Consumers and buyers are looking for ready-prepared vegetables. Cut or mixed vegetables suitable for frying are one possible option. In the United Kingdom, in particular, there has been a move towards prepared cold vegetables.

Finally, it should be stressed that varieties of vegetables differ, depending on their texture, in the way they withstand freezing. Fibrous products (such as palm hearts or asparagus) lose their flavour after freezing and the result leaves much to be desired.

Prices

Given the different nature of the products studied (types of vegetables, mixtures of vegetables), there is no reference to standard international prices in this study. However, for information purposes, examples of retail prices in big supermarkets are given in the following chapters on countries.

B. GERMANY

Foreign trade

After years of euphoria that saw strong growth in German production of frozen vegetables (+ 80% between 1987 and 1995), the results of the vegetable-processing industry have been fairly stagnant since 1996.

That year was an important one for the frozen vegetables market in Germany. Production fell by 23.1% in volume (from 158,995 tons in 1995 to 122,235 tons) and by 15.7% in value (from €16.77 million to €13.72 million €1 = approximately US$0.9 in 2001). Massive, disorganized investment, easily obtainable subsidies and ignorance of the sector led to overproduction and bankruptcies (the number of manufacturers fell from 14 to 9). Only prepared frozen vegetables recorded slight growth, from 66,377 tons in 1995 to 69,135 tons in 1996, an increase of 4.2%. The sector is characterized by strong pressure on prices: exports have traditionally taken a back seat in the processed-vegetable sector and imports, even though stagnant, are at a high level.

Demand in Germany has so far been met by drawing on high stocks and by increasing imports: Germany, which imported around 300,000 tons in 1998, is the foremost importer of frozen vegetables in the European Union, ahead of the United Kingdom, France and Italy. In 1998, Belgium was still Germany's biggest supplier (and the biggest European supplier), ahead of France and the Netherlands (the figures vary according to the source, but imports from Belgium are estimated at over 160,000 tons).

In 1996, German imports of frozen vegetables jumped by an average of 6.5% before stabilizing somewhat in subsequent years. The rises measured over 10% for peas, spinach, sweetcorn, peppers and mixtures of vegetables and were more moderate for asparagus and mushrooms and the "other vegetables, frozen" category. Imports of frozen beans remained stable, while imports of other leguminous vegetables, olives and artichokes declined.

Consumption

According to the European Federation of Associations of Manufacturers of Frozen Food Products (FAFPAS), total consumption of frozen vegetables was 374,080 tons in 1998, of which 231,385 tons were distributed by retail outlets and 142,695 tons went to the catering industry. For the same year, consumption of potato-based frozen products was 334,605 tons, of which 170,805 tons were distributed via retailers and 163,800 tons via the catering industry.

Market characteristics

Frozen vegetables have a good image. They are used all year round to replace fresh products. In 1998, the retail market grew slightly as compared with 1997, reaching 231,385 tons. Of the range of products on offer, prepared vegetables recorded an increase of 3,000 tons (up 3%) and unprepared vegetables an increase of 6%. With annual growth of barely 1%, potato-based products (around 175,000 tons in the retail market in 1998) seem to have reached maturity; they remain among the mainstays of the frozen food market.

In terms of products, it is original ideas, attractive mixtures and practical preparations that attract consumers, who go either for high-quality brand-name products or for basic products at discount prices. However, with regard to prices, it should not be forgotten that German manufacturers are under strong pressure from imports. Price is a very influential factor in the buying decisions of German consumers, whether they are individuals or entities. "Convenience", or ease of use and practicality, takes second place.

- Percentage of households equipped with refrigerators/freezers (1998): 65% (east)/69% (west)

- Percentage of households equipped with microwave ovens: 38% (east)/60% (west)

Market access

Germany is a country where people are still very sensitive to the purity of food products. In addition to Community provisions on the cultivation of agricultural products and the use of chemicals, the German Government, in consultation with representatives of the food industries and consumer groups, can pass ordinances on permissible residue levels. These levels are specified in the ordinance on residue tolerances for phytosanitary products, which is periodically amended. Moreover, random spot checks are carried out regularly by national and/or regional bodies at points of entry, in the wholesale market and in the retail trade to check for compliance with European standards for quality, labelling and chemical residues. It is, in the final analysis, the importer who is responsible for applying all the standards, but all complaints about quality are automatically forwarded to the exporter.

Distribution channels

The main distribution channel for frozen products is hypermarkets and supermarkets, which accounted for about 35.5% of distribution of frozen products in 1998. Discount stores saw their share increase, thanks to rock-bottom prices on a wide range of products, and managed to take their market share to 26.5%. Despite its relatively high prices, "home service", which is particularly well established in Germany, is holding on to its market share of almost 25%, by offering a very specialized and efficient service. Retail outlets, for their part, have seen their share strongly eroded: they are handicapped by their difficulty in competing on price and by space constraints that prevent their offering a real choice. Freezer centres are rare.

Trade practices

Payments are generally made in 30 or 45 days. Transport is by freezer lorry in order to maintain the cold chain. Most importers and producers of frozen vegetables are located in Hamburg, Bremen, Cologne, Berlin, Frankfurt, Stuttgart or Munich. The importers primarily supply consumer cooperatives, wholesalers and the big supermarket chains.

Sales promotion

The InterCool trade fair in Dusseldorf, specializing in cold foods, dairy products and ready-made meals (next to be held from 24 to 27 September 2000) and the Anuga general food trade fair in Cologne (held every two years) are the two major events in Germany.

Market outlook

German consumption of frozen products is rising steadily: in 1997, around 360,000 tons of frozen vegetables - excluding potato-based products - or 4 kg per inhabitant (a 10% increase) were consumed. The outlook for the market, which is lagging somewhat behind the other major European markets, is promising.

The main force for expansion in the frozen food market is innovation, but the price war under way in Germany is undermining the development of new lines and increasing the risk of a decline in product quality. Consequently, suppliers' best chance of increasing their market shares in Germany is to concentrate on the bottom of the price range.

Other factors that could boost the market for frozen vegetables are the growing numbers of one-person households and working women and the increasing percentage of households with microwave ovens in the former East Germany.

C. BELGIUM

Foreign trade

With a quarter of European production, Belgium is the top producer of frozen vegetables in the European Union: the 14 Belgian companies working in this sector, 13 of which are located in West Flanders, produced over 500,000 tons in 1998. The Flemish frozen vegetables sector had a turnover of €400 million in 1997. Every year, the industry buys the equivalent of 37,000 ha of vegetables for freezing from 8,000 suppliers and producers, at a cost of €200 million in 1997.

Belgians are not great consumers of vegetables (they consume only 2.7 kg per person per year), and so exports are very important: in 1999, around 90% of total production, estimated at 500,000 tons, was exported (418,000 tons in 1998 according to Eurostat). The Belgian market supplies many European Union countries: first and foremost, Germany and France, followed by the United Kingdom and then, to a lesser extent, the Netherlands, Italy and Spain (in 1998). Imports of frozen vegetables are intended partly for re-export within the European Union and partly for domestic consumption. They reached 117,446 tons in 1998, coming mainly from France, the Netherlands, Spain and the United Kingdom.

Consumption

According to the Belgian Association for Frozen Food Products, annual consumption of frozen vegetables was 30,350 tons in 1998, distributed directly and in their entirety by the retail trade. Consumption of potato-based products was 129,800 tons in the same year, with 62,800 tons marketed in the retail sector and 67,000 via the catering industry.

Market characteristics

Frozen vegetables (with the exception of frozen potatoes) have far less of an impact on the Belgian market than fresh vegetables, the undisputed market leader. However, as the consumer finds them so easy to use, the market share of frozen vegetables is slowly growing. The Belgian market for frozen vegetables and prepared vegetables is growing steadily (by 8-10% in volume and around 10% in value per year between 1996 and 1997). Prepared vegetables (accounting for over 20% of the frozen food market), with their greater ease of use, are well placed in this sector. Of the unprepared vegetables, peas, carrots, beans and Brussels sprouts are the main lines. Broccoli has made a major breakthrough in the last few years but spinach, in its various guises, is still the top frozen vegetable (31.6% of all vegetables by volume and 25.2% by value in 1997-1998).

Most of the European leaders are present in the Belgian market: according to a survey by Nielsen in 1997, Unilever, with its Iglo brand, accounts for 30% of the market by volume and 46% by value, Bonduelle for 5% by volume and 5.2% by value, and Ardovries, with its Ardo brand, for 3.8% by volume and 2.6% by value. The young family-owned company Westfro is also present in the market. Unilever targets the market for prepared products, which requires constant innovation and offers better opportunities for added value. Alongside the leaders, there are many dynamic medium-sized firms taking advantage of crop contracts and a location close to the large concentrations of consumers in Belgium and northern France.

Iglo, the commercial leader and second producer of frozen vegetables after the private labels, divides its range (as reported by Nielsen) into three main segments: spinach, other prepared vegetables and other unprepared vegetables.

- Percentage of households equipped with refrigerators/freezers (1998): 77%

- Percentage of households equipped with microwave ovens (1998): 56%

Distribution channels

The Maxi GB hypermarkets, Super GB supermarkets and Delhaise are the largest chains in the country. Colruyt is among the foremost discount stores. With over 57% by volume and 56% by value (1998), the supermarket chains have the lions' share of the market for frozen vegetables, thanks in particular to distributors 'own brands. This is especially true for basic products such as unprepared vegetables. Discount channels account for, respectively, 18.1% by volume and 18.8% by value, small supermarkets for 2.3% and 3.1%, and specialist and independent channels for 22.1 per and 21.5%.

Trade practices

Most of the importers and manufacturers of frozen products are located in Flanders, around Antwerp. The fresh products for processing are imported by sea, via Antwerp, or by air, via Brussels. Vegetables for freezing also arrive by road from Paris or Rotterdam. The only wholesale market in the country is in Brussels, where many companies have an office. The majority of raw materials are bought under contract, and the rest are bought from specialist wholesalers.

Packaging and labelling

Portions and multi-portions in 500 g or 2.5 kg reclosable packs have become the norm. However, the shrinking size of households and the growing attention paid to convenience foods favour small packs. The big supermarket chains could possibly impose packaging constraints or standards by requiring, for example, complance with environmentally friendly packaging initiatives.

Sales promotion

Tavola, the trade fair for speciality and fresh foods, is the main food event in Belgium.

Market outlook

The Belgian frozen vegetables industry is a modern, efficient and dynamic industry: frozen vegetables are a safe investment and represent a growth segment. Producers like Iglo, Bonduelle, Ardo and Westfro can undoubtedly improve their results by focusing on product quality and offering the consumer a varied and regularly updated range of vegetables. The market is very competitive but not impossible to break into, providing an innovative approach is taken to all the components of the finished article (from practicality to recyclable packaging, bearing text in both French and Flemish and menu suggestions).

There is a second key factor in the development of the Belgian market for frozen vegetables: products are positioned in relation to domestic brands and private labels but retailers are open to international influences.

The catering market is large and should not be neglected (it accounts for roughly the same volume of potato-based products as the traditional market): it is a market on the lookout for products that can be prepared quickly. On the other hand, changes in crop-growing and trading practices that make year-round supplies of fresh vegetables available take away some of the attraction of frozen vegetables.

D. SPAIN

Foreign trade

The successive devaluations of the peseta since 1992 have made market access difficult for imported products but have stimulated exports of frozen vegetables. They have been one of the factors that have enabled production to increase to a level put by one professional source at around 345,000 tons in 1998 (excluding chips and other potato-based products).

The main kinds of vegetable processed by the frozen food industry are green beans, peas and peppers. Volumes of processed asparagus, once an important product for Spanish industry, have fallen dramatically. For exports, the Spanish frozen vegetables industry has specialized in a few products such as peppers, artichokes and tomatoes. The volume of exports went up from 105,000 tons in 1995 to 151,000 tons in 1998 (*source*: Almarket) (134,960 tons according to Eurostat). Spain remains a dynamic exporter of frozen vegetables, its main markets being, in decreasing order of importance, France, the United Kingdom, Germany and the Netherlands. Imports are mainly of products that Spain is short of, such as peas, green beans or sweetcorn, or products available on the international market at prices lower than those of domestic producers (carrots, spinach).

The frozen chips market is characterized by the predominance of imports, which jumped by around 9.6% in 1996 to a total volume of around 95,800 tons. Spanish production is almost entirely limited to the output by Mc Cain. Imports of frozen potato products come mainly from the Netherlands, France and Belgium. It should be noted that France's share has fallen considerably in the last few years.

Trends in Spanish production of the main frozen vegetables (in thousands of tons):

Product	1996	1997	1998	1999
Flat green beans	49 985	51 569	56 609	67 682
Peppers	29 631	34 000	48 210	52 445
Peas	35 439	34 946	42 300	42 885
Broccoli	13 780	19 064	34 000	40 500
Spinach	19 590	20 890	25 945	30 481
Sweetcorn	16 271	12 806	18 167	20 300
Potatoes (diced)	9 631	13 694	15 977	17 542
Cauliflower	17 990	13 909	13 944	15 570
Carrots	12 923	11 309	13 555	15 577
Artichokes	8 811	9 000	9 480	11 067
Asparagus	970	1 339	357	200
Other vegetables	26 788	36 617	67 574	72 199

Source: ASEVEC.

Consumption

According to the Spanish Association of Frozen Vegetable Manufacturers (ASEVEC), total consumption of frozen vegetables was 266,200 tons in 1998, of which 162,400 tons were distributed by retailers and 103,800 went to the catering industry. In the same year, consumption of frozen potatoes was 109,700 tons, of which 26,920 tons were sold by retailers and 82,780 tons by caterers.

Market characteristics

The frozen vegetables segment accounts for the highest sales of frozen foods both by value and by volume. According to Nielsen, which was asked to conduct a survey among consumer focus groups (for the year up to February-March 1999), the market for consumption of frozen vegetables was growing in 1999 as compared with 1998. In the same period, sales of raw frozen vegetables (including potatoes) accounted for 40.2 % of the value of frozen food sales in Spain, as against 39.9% in the previous year.

The most commonly consumed vegetables are green beans (Spaniards are fond of small haricot beans, flat green beans called "judías verdes" in Spain), peas, peppers, spinach and broccoli. The market for potato products (chips and others), which amounts to over 100,000 tons, is largely dominated by imports. The prepared products are divided into pre-cooked dishes ("precocinados"), for which the outlets are caterers (in canteens or commercial restaurants), and prepared dishes generally consumed at home.

The trend towards concentration of the market in the hands of companies selling under brand names has grown considerably in recent years. The two big multinationals, Unilever (which has just acquired Frudesa) and Nestlé (Marcilla, Findus), together hold about 50% of the market for brand-name products. Frudesa, with a turnover of €120 million, is the leader, with a market share of 38.9%. It is followed by Nestlé, with 13.1%, Pescanova, with 6.1%, and Bonduelle, with 6% (CFCE figures for 1998). Their decisions determine the future of the other manufacturers, who find themselves being bought out or left to face the uncertainties of the loose vegetables and subcontracting market. The major brands are offering lots of skillet meals based on combinations of rice and vegetables with seafood or cold meats (ham, dry sausage).

According to Nielsen, two geographical areas dominate consumption of frozen products in Spain: the north-east (Barcelona and the rest of Catalonia), with 23% (including 9.5% for Barcelona alone), and the south, with 20.34%. Madrid is also a significant consumer (13.2%).

Although the practice is prohibited in Europe, there are still some Spanish shops where frozen products are sold loose (i.e. where customers make up their own assortments of vegetables).

- Percentage of households equipped with refrigerators (1998): 35%
- Percentage of households equipped with microwave ovens (1998): 35%

Market access

Although the differences are tending to narrow, legislation and supervisory practices are more flexible here than in other European Union countries. The retailing practice mentioned above, where the frozen products are in contact with the ambient air, is evidence of this regulatory flexibility. Quality controls on products, and on maintenance of the cold chain in particular, are still infrequent.

Prices

- Examples of prices found in a "Corte Inglés" store in Madrid in May 2000:
- Packet of Frudesa sweetcorn, 400g: 230 pesetas (€1.4);
- Packet of peas, Corte Inglés own brand, 1kg: 300 pesetas (€1.85);
- Packet of Bonduelle carrots, 400g: 235 pesetas (€1.4);
- Packet of vegetable stir-fry based on potatoes, carrots, peas and flat beans, Corte Inglés brand: 275 pesetas (€1.65). The price of stir-fries depends on their ingredients.

Distribution channels

The French groups Carrefour, under the Spanish brand Pryca, and Auchan, under the name Al Campo, are the biggest hypermarket chains. They are found on the outskirts of the large towns and have been expanding constantly since the early 1990s. Corte Inglés is a Spanish chain of stores located in town centres. They have large food areas and are highly rated by Spanish consumers, especially for their top-of-the-range products. As in the case of traditional food products, modern distribution channels are supplanting traditional ones. There are around 500 branches of chain stores, and it is at that level that the pattern of modern Spanish distribution is defined.

In 1998, according to Nielsen, non-specialized food distribution in Spain covered just over 74,000 shops, of which 48,607 were traditional shops, 285 were hypermarkets and 25,135 were supermarkets. Numerically, very small shops are still predominant in Spain; they represent 84% of the points of sale for food but less than 20% of the turnover in non-specialized food distribution. Specialized retail shops operate in a clearly delimited area and are unable to expand much because of logistical problems. The supermarkets are the priority target for the reorganization of distribution channels in Spain, which are still very fragmented and regionalized. The deep-discount stores are still of minor importance but should progress quickly in the wake of the arrival in 1994 of the German specialists (Lidl and Plus).

Trade practices

There is no general rule on deadlines for payment, which is made in 30, 60, 90 or, more often, 120 days. The means of transport used is the freezer lorry. There are no independent frozen-food warehouses (storage centres specially for frozen products, managed by a service provider). The main freezing plants are grouped together in the central/northern region (Zaragoza and Navarra) and the east (Valencia).

Packaging and labelling

Loose sales of frozen food are theoretically prohibited, which will encourage the move towards a "loose but hygienic" system (individual packaging under cellophane, with a brand name printed on it). Packs of 400 g or 1 kg are the most common, but packs of 450 g or 500 g are sometimes found. Apart from offering some variety in the size of portions, packs have few sophisticated features (zip locks, hermetic seals).

Sales promotion

The Alimentaria international trade fair in Barcelona is the biggest in the country; it takes place every two years in March, alternating with the Alimentaria trade fair in Lisbon, Portugal

Market outlook

Canteens, restaurants and caterers are the biggest outlets in Spain for frozen products, especially the precooked ones ("precocinados") (66%). Judging from retail sales volumes, Spanish consumption of frozen foods in general is growing vigorously (by 8% a year), and this seems to apply to almost every product category. The main reasons for this vigour are the growth in distributors' own brands and the improvement of distribution channels.

Nevertheless, the frozen vegetables sector is dominated by loose sales, making it easier to sell products of mediocre quality covered in a relatively thick film of ice. Although there are no precise figures on the shares of loose and branded products, it can be estimated that loose sales account for around 70% of the market. However, the ratio of those to branded products is changing as a result of the recent restructuring in the vegetable sector. The market for products combining mixed vegetables (stir-fry vegetables) with shrimps, fish or ham is growing.

Success in this market segment depends on constant innovation and competitive pricing. Seafood and raw vegetables still account for two thirds of consumption; erosion of the market is being combated by launching new products akin to ready-made meals, the range of which is still narrow.

The two newest ranges from Frudesa, the market leader, are the 'Crea Tu" range (vegetable-based ready-made dishes) and the 'Salto" range (products ready in a record time of seven minutes).

E. FRANCE

Foreign trade

In 1998, there was an imbalance in French foreign trade in frozen products: imports were almost twice as high as exports and the deficit increased by 21.6% between 1997 and 1998. Over the same period, although exports rose by 8.4% for frozen vegetables and 9.7% for prepared frozen vegetables, the deficit continued to rise.

It should be noted that French foreign trade in frozen vegetables is concentrated on a small number of countries: the European Union supplies France with over 90% of its imports and three countries (Belgium, the Netherlands and Spain) account for 84% of these (according to Eurostat, imports from the European Union in 1998 totalled 267,494 tons); the European Union also has a dominant role in France's exports, accounting for around 95% of sales (according to Eurostat, intra-European exports in 1998 amounted to 136,000 tons). Exports are spread more widely than imports, with five countries (Germany, Belgium, the United Kingdom, Italy and Spain) accounting for 88.8% of sales, their individual shares ranging from 10 to 32%.

Trade in prepared frozen vegetables is almost exclusively with European Union partners – 98% for imports and 84% for exports. In 1998 exports of these products fell by 23% in volume and 28% in value, resulting in an adverse balance. Imports of prepared vegetables were limited (6,452 tons, valued at around €10 million, in the first half of 1999).

Exports of chips rose in value by 26.8% to €35 million but fell in volume by 8.5%. This rise in value was due to big increases in sales in the two main foreign markets, Spain (up by 30% to €14.4 million after years of decline) and Greece (up by 63.4% to €11.13 million), between the first quarter of 1998 and the first quarter of 1999. Imports of chips fell slightly in volume (down by 11.8%, to 90,000 tons) and imports of other potato products remained limited (up by 41.3%, to 29,000 tons).

Consumption

The European Federation of Associations of Manufacturers of Frozen Food Products (FAFPAS) estimates that total French consumption of frozen vegetables was 444,000 tons in 1998 and that of frozen potatoes 412,000 tons.

Market characteristics

The vitality of the frozen vegetables sector is undeniable: in the first quarter of 1999 the market was up by 5.6% in volume and 5.3% in value as compared with the figures for 1998 (*source*: manufacturers, IRI-SECODIP, average annual cumulative total, June 1999). Simply put, the French are consuming more frozen vegetables, which have the two undoubted advantages of quality and practicality. Distributors' own brands are strongly represented in the market, having shares of over 60% both in volume and in value. Not that that is holding back innovation: more and more recipes and greater variety are on offer and the consumer can choose between single vegetables, mixtures of vegetables and cooked vegetables.

In large and medium-sized stores, the single-vegetable segment continues to account for the largest volumes, with around 67% of the total, and turnover is highest in green beans and cauliflower, which account for, respectively, 28.7% and 13.3% of all vegetables. Sales of mixed vegetables grew by 7% in the first half of 1999. Taken together, single and mixed raw vegetables account for around 80% of the vegetables sold in large and medium-sized stores, but there is a growing trend towards convenience foods and ready-cooked meals (up by 6.2% in the first half of 1999). Single vegetables are part of the manufacturers' basic range (highest turnover being in green beans and cauliflower). Mixtures of vegetables (vegetables for couscous, ratatouille, peas/carrots, macédoines, soup vegetables) form their own product family. Cooked vegetables include cooked rice, pancakes, cream spinach, stir-fry vegetables and cooked purées.

- Percentage of households equipped with refrigerators with a freezer compartment (1998): 87%
- Percentage of households equipped with microwave ovens (1998): 59%

Prices

Bonduelle has launched a range of "poêlées saveur" (tasty stir-fries), frozen pre-cooked vegetables that are ready to eat in seven minutes. Consumers can choose from four varieties presented in 750g plastic packs. To give some examples of prices: Courgettes à la provençale cost FF 16.40 (€2.5) and green beans FF 21 (€3.2).

Examples of prices from a Carrefour store in May 2000:

- Packet of carrots, Bonduelle brand, 1 kg: FF 10.30 (€1.57)
- Packet of carrots, Carrefour own brand, 1 kg: FF 8.90 (€1.36)
- Packet of peas and carrots, Bonduelle brand, 1 kg: FF 12.65 (€1.93)
- Packet of peas and carrots, Carrefour own brand, 1 kg: FF 9.50 (€1.45)
- "Stir-fry" pack (with meat, broccoli, potatoes and carrots), Bonduelle brand, 750 g: FF 24.15 (€3.68)

The average prices of frozen vegetables are being forced down, despite manufacturers' efforts to improve the products' image and quality. Mixtures of vegetables, sweetcorn and beans seem best able to resist this trend.

Market access

France is a country that is becoming more and more sensitive to the wholesomeness and unmodified nature of farm produce: the more processed or improved a product can claim to be, the more likely it is to appeal to the consumer. Moreover, given recent events in the frozen food sector, the French authorities are being particularly vigilant about compliance with the requirements of the cold chain.

As a member of the European Union, France applies Community regulations but frozen products on sale or being transported to market may be further inspected by officers from the Fraud Prevention Department (quality control by taking samples, and verification of compliance with the rules on freezing).

Distribution channels

The leading supermarket chains in France are Auchan, E. Leclerc and Carrefour (the largest, which has just merged with Promodes, the owners of the Continent hypermarkets and the Codec, Shopi and Champion supermarkets). After these, there are various regional supermarket chains with shops near town centres (Atac, Intermarché, Huit à Huit).

The distribution structure for frozen products is centred on a few actors: the manufacturers and/or importers supply the major chains and/or central buying offices. These offices in turn distribute the products to the large and medium-sized stores, major retailers and, sometimes, distributors.

For some years, medium-sized (100-400 m^2) frozen food stores have been opening up in central and out-of-town shopping centres. Of these, the Picard distribution chain is increasing sales on the basis of its products' image for quality and taste. It should be noted that the "Raffarin Act", which has been in effect since 1997, is intended to put a brake on the spread of new large stores in order in particular to limit closures of small businesses in town centres.

Trade practices

Since 1 July 1993, when the "Sapin Act" of December 1992 entered into force, payment for fresh produce (and most frozen products) to be sold in the large stores must be made within 30 days. In addition, French law requires manufacturers or importers of food products to set their sales terms and conditions (forecasts of the quantity of products that will be sold, price ranges, etc.) on an annual basis.

Distributors' price policies are also closely monitored; the "Galland Act", which has been in effect since 1997, amended the conditions of business negotiations between distributors and suppliers, prohibiting distributors from retailing products at less than the price invoiced by the supplier.

Packaging and labelling

Trade professionals and distributors are fervent believers in the 450 g format, which saves shelf space and seems to be best suited to the needs of the average French family. Packs of 400 g and 1 kg are among the most common, but there are many variations, including 450 g, 500 g and 750 g packs.

Market outlook

The trade deficit in frozen vegetables is substantial and increasing but there are real opportunities for growth and development in the sector. If new markets are to be captured, the concept of service is of prime importance. "Speed and convenience" and "practicality and portionability" are two categories of advantages that are exploited, and should continue to be exploited, in marketing frozen vegetables. The development of cooked vegetables is proof of this. In the single-vegetable segment, Paysan Breton is launching two lines of steam-cooked vegetables while Pinguin, in its "Finish & Serve" range, is offering vegetables that have been pre-cooked "al dente". The Bonduelle brand, which is represented in all the product families, is still the leader in the frozen vegetables segment (with a 23.4% market share by value in 1999).

The "natural" concept also has great appeal and organic vegetables could help attract new consumers. For example, the Ardo brand markets frozen vegetables grown in accordance with stringent rules by organic farmers under contract to Ardo.

F. UNITED KINGDOM

Foreign trade

The United Kingdom is the principal consumer of frozen vegetables in Europe. Domestic production is considerable and partly covers the demand. However, consumption is so high that imports from the country's European partners are also needed. In 1998, 212,946 tons of frozen vegetables worth €160.5 million were imported (*source*: Eurostat). The main suppliers were Belgium and the Netherlands, followed by Spain and France. Over the same period, 84,408 tons worth €66.4 million were exported: the main destinations were, in decreasing order of importance, Spain, Italy and Germany.

Consumption

According to the European Federation of Associations of Manufacturers of Frozen Food Products (FAFPAS), total consumption of frozen vegetables in 1998 was 407,700 tons, of which 327,700 tons were distributed by retailers and 80,000 tons went to the catering industry. In the same year, consumption of potato-based frozen products was 787,800 tons, of which 458,800 tons were sold by retailers and 349,000 tons via the catering industry.

Market characteristics

The British market for frozen products has reached an advanced stage of maturity: it is Europe's largest market in volume and it is second in consumption per inhabitant, after Denmark and ahead of Sweden and Norway. In 1996, 1997 and 1998, however, consumption was stagnant or fell slightly, for lack of innovation in certain segments. This fall was particularly noticeable in one- and two-person households. In contrast, consumption rose in large families (those with three or more children).

Peas are the largest segment (38.7% by volume and 46.3% by value), ahead of green beans (10.5% by volume and 15.3% by value) and chips.

Sales of raw vegetables fell by 0.4% in value between 1997 and 1998; sales of prepared vegetables rose by 47.8% in value during the same period. Unilever, with its Bird's Eye brand, has products in virtually all market segments.

The potato products segment of the market has been growing steadily and this has led to an upsurge in sales of frozen foods (+ 12.7% by value and + 5.1% by volume between 1997 and 1998). Frozen chips are by far the largest component in this segment, which is driven by the most sophisticated lines (between 1997 and 1998, by value: classic chips, -4.7%; oven chips, + 22.9%; speciality chips, + 16.8%). Among the other potato products, it is products for children that are selling best (+ 64.3% by value). McCain has a comfortable lead over its competitors in this market.

In 1998, 75% of British households had a microwave oven, over 50% had a freezer and around 45% had a combination refrigerator/freezer.

Prices

Esk Frozen Foods offers several lines of frozen vegetables (carrots, mushrooms, green vegetables, mixtures of vegetables) that retail in 907 g plastic packs for £1.49 (about €2.65).

Distribution channels

The producers of frozen vegetables supply directly either the main distribution chains or the wholesalers or central buying offices, who in turn supply the distributors' market and/or the catering industry. Transport between the central buying office and the shop is generally provided by the distributor, which has its own fleet of lorries with multiple compartments, enabling it to transport several types of product (chilled, frozen or at ambient temperature) at the same time. The market volume is so high that there are also companies which specialize in the storage and year-round sale of frozen products. The main distribution channels for consumer sales are: the large supermarket chains, dominated by a few multiples; co-ops (general food stores owned by a company from the cooperative movement), the location and size of which vary from region to region; independent grocery shops; and freezer centres.

Food retailing in the United Kingdom is very much dominated by the large supermarket chains: Tesco, Sainsbury's, Safeway, Asda and Waitrose account for 70% of the food consumption market. They are the biggest distributors in food retailing and push prices down. Their search for new suppliers is often intended to fill the shelves with very keenly-priced brands. Iceland is a chain of supermarkets that sell only frozen foods and are often located just outside built-up areas. Marks & Spencer's stores have a good reputation with British consumers and aim their food products at more up-market customers.

Loose frozen foods are not found in modern stores but are still sold in some small specialized shops.

Trade practices

Payments are made in 35-45 days on average. As the United Kingdom does not belong to the euro zone, transactions are carried out not in the European currency but only in sterling.

Packaging and labelling

The standard packaging is made of flexible, opaque plastic and heat-sealed at both ends (sachet-type packaging).

The majority of products do not mention origin; they have a price bar code and consumer information (product selection criteria, product format - sliced, crinkle-cut, matchstick-cut, diced) printed on the pack. Frozen products are mostly available in standard two-pound (907 g) or one-pound (454 g) packs.

The Sainsbury's brand has been promoting the use of zipped packs for frozen vegetables since 1997 and, because of their strength and reliability, is trying to turn them into the standard by promoting them under the slogan "Better packaging, same price".

Sales promotion

The United Kingdom's main trade fair for the food sector in the United Kingdom is Foodex Meatex, which is held annually and alternates between London and Birmingham.

Market outlook

Growth in the frozen vegetables market is based on products with a high added value in terms of practicality ("microwavable" for example) and innovation. New products are thus being sought but there is still some way to go to meet the demands of consumers, who have often been disappointed with the quality and/or size of the portions. Thus, in 1998 and 1999, producers' advertising strategies focused particularly on improving the image of their products.

The "organic" effect has now reached the world of frozen vegetables: forecasters say the British market for organic food products could reach €815 million in 2001/2002. The most buoyant segment is organic fruit and vegetables but the British industry suffers from a supply problem and has to import 60-75% of its organic raw materials.

The Icefresh brand is introducing "free flow" frozen spinach, which has the taste of the fresh vegetable but offers the advantage of being cheaper and easier to use. It is prepared using "clean" technology, which is the result of cooperation between Savorland and its partner Unifrost.

A second, very favourable trend has been gaining ground over the last 10 years, namely the trend towards diet and vegetarian dishes targeting the growing proportion of British people - at least 8-10% of the population - who have decided to eat less meat or cut out meat altogether.

G. INFORMATION SOURCES

- Eurostat, Comext, Statistical Office of the European Communities
- Contacts and talks with manufacturers, exporters and distributors of frozen products
- Contacts with national associations of manufacturers of frozen products
- Global Trade Information Services, Inc. (www.gtis.com)
- *Frozen and Chilled Food Yearbook*

Germany

- CFCE 03/1998 - Bilan de l'industrie allemande de transformation de fruits et légumes en 1996
- CFCE 09/1998 - Légumes surgelés: production en baisse, consommation en hausse
- Veille internationale, No. 1, January 2000 - Allemagne: le marché des produits surgelés en 1998
- *Lebensmittel Praxis* magazine, No 21, 1999

Belgium

- Lettre de Belgique, No. 51, April 1997
- Veille internationale, No. 4, CFCE/MPS, April 1999
- Distribution d'aujourd'hui, November 1997, p. 33, Dossier: légumes surgelés

Spain

- Le marché espagnol des produits surgelés et des glaces, Les notes du CFCE, no date
- Veille internationale, Dossier: Espagne, les principaux distributeurs alimentaires, No. 1, CFCE, January 2000
- Veille internationale, Dossier: Espagne, le marché des produits surgelés, No. 9, CFCE, September 1999
- *Alimarket* magazine, Nos. 120 and 131, 1999
- *Super Aral Lineal* magazine, March 1999

France

- Produits surgelés et glaces - Bilan du commerce extérieur français en 1998, CFCE /MPS, March 1999
- Légumes surgelés: un potentiel de développement qui reste intact, from Le Monde du surgelé, December 1999
- France, Bilan du commerce extérieur des produits surgelés au 1er trimestre 1999, CFCE
- *LSA* magazine, No. 1686, 1998

United Kingdom

- Veille internationale, No. 3, CFCE/MPS, March 1999
- Veille internationale, No. 12, CFCE/MPS, December 1999

ANNEX I

Foreign trade in frozen vegetables -

Germany, Belgium, Spain, France and the United Kingdom

A. GERMANY

Foreign trade in frozen vegetables (HS 0710)

(V: € x 1,000 ; Q : metric tons)

	IMPORTATIONS 1998		EXPORTATIONS 1998	
	V	Q	V	Q
Intra Europe 15	235095	298807	48816	55267
France	34795	34091	4829	8055
Holland	48256	54373	10821	11809
Italy	8030	9059	2332	1654
United-Kingdom	3842	4674	1643	1265
Denmark	5473	6917	1896	2112
Greece	779	659	222	119
Portugal	606	835	232	83
Spain	17153	20999	3422	4688

__SOURCE__: EUROSTAT, 1 –2000

B. BELGIUM

Foreign trade in frozen vegetables (HS 0710)

(V: €000 ; Q : metric tons)

	IMPORTATIONS 1998		EXPORTATIONS 1998	
	V	Q	V	Q
Intra Europe 15	75385	117446	285306	418019
France	27341	41792	74651	122700
Holland	17587	29201	19459	26273
Germany	7028	10914	89402	124927
Italy	384	448	16292	24889
United Kingdom	6279	12430	44111	63065
Denmark	292	437	4562	5824
Greece	107	116	5069	7608
Portugal	2718	3915	3475	4121
Spain	13178	17109	12949	19953

__Source__: EUROSTAT, 1 - 2000

C. SPAIN

Foreign trade in frozen vegetables (HS 0710)

(V: €000 ;Q : metric tons)

	IMPORTATIONS 1998		EXPORTATIONS 1998	
	V	Q	V	Q
Intra Europe 15	58068	95135	115422	134960
France	28195	46753	29566	33683
Holland	6650	9980	10802	13808
Germany	1242	832	20835	23805
Italy	629	740	8815	5736
United Kingdom	18715	9796	18715	25040
Denmark	4596	465	4596	5755
Greece	634		634	554
Portugal	7540	1449	7540	9424

***Source*:** *EUROSTAT, 1 - 2000*

D. FRANCE

Foreign trade in frozen vegetables (HS 0710)

(V: €000 ;Q : metric tons)

	IMPORTATIONS 1998		EXPORTATIONS 1998	
	V	Q	V	Q
Intra Europe 15	179774	267494	136000	150252
Holland	16655	21174	4009	4968
Germany	4176	4654	35403	30798
Italy	8135	5602	21319	23387
United Kingdom	1466	1040	20923	21240
Denmark	166	163	566	409
Greece	9	13	779	640
Portugal	4261	7322	1547	2267
Spain	33101	38111	13066	16833

***Source*:** *EUROSTAT, 1 - 2000*

E. UNITED KINGDOM

Foreign trade in frozen vegetables (HS 0710)

(V: €000 ;Q: metric tons)

	IMPORTATIONS 1998		EXPORTATIONS 1998	
	V	**Q**	**V**	**Q**
Intra Europe 15	160559	212946	66433	84408
France	25218	26939	3665	4324
Holland	45971	69017	1486	3137
Germany	1965	1770	5066	7560
Italy	978	777	13070	15844
Denmark	1146	739	3377	1622
Greece	209	213	320	312
Portugal	218	143	4170	3824
Spain	26045	31620	7891	155585

***Source*:** *EUROSTAT, 1 - 2000*

ANNEX II

List of importers and manufacturers

GERMANY

Frosta Tiefkihlost GmbH
Am Linedeich 116
27572 Bremerhaven
Tel: (+49 471) 97 36 117
Fax: (+49 471) 720 76

Gustav Wulff GmbH
Bahnofstrasse 11C
21465 Reinbek bei Hamburg
Tel: (+49 407) 281 540
Fax: (+49 407) 281 545
e-mail: impont@tgustav-wulff.de

Zolher Pilzgrosshandel
Industriestrasse 1
92439 Bodenwoehne
Tel: (+49 94) 341 001
Fax: (+49 94) 343 768

Henny Lamotte GmbH
Po Box 103849
28038 Bremen
Tel: (+49 42) 152 390

Oberpfalzer Waldnuchte Konservenfabrik
Industriegebiet West
92237 Sulzbach Rosenberg
Tel: (+49 966) 187 190
Fax: (+49 966) 153 567

CCF Calenberg Feinfnost GmbH
Am der Zuckerfabrik
Gross Munzel
30890 Barsinghausen
Tel: (+49 50) 351 810

Elbtal Tiefkihlost GmbH
Messaer Strasse 1-5
01623 Lommatzsch
Tel: (+49 35) 241 590
Fax: (+49 35) 241 591

Göhrder Tiefkihlproduktion GmbH
Osterbrookweg 60
22869 Schenefeld
Tel (+49 40) 830 380
Fax: (+49 40) 840 644

Hengstenberg GmbH Co KG
Mettinger Strasse 109
73728 Esslngen am Neckar
Tel: (+49 71) 139 20
Fax: (+49 71) 139 29

BELGIUM

Ardovries SA/N.V
Wezestraat 61
8850 Ardooie
Tel: (+32) 510 621
Fax: (+32) 513 059

Bonduelle Noord Europa SA
Boerenkrijgstraat 133
2800 Mechelen
Tel: (+32 15) 569 311
Fax: (+32 15) 555 672

Hesbayefrost SA
Rue Emile Lejeune 20
4250 Geer
Tel: (+32 19) 588 434
Fax: (+32 19) 588 847

Mc Cain Foods Belgium SA
Nijverheidsstraat 2
2280 Grobbendonk
Tel: (+32 14) 508 211
Fax: (+32 14) 500 301

Pinguin Sa
8840 Westrodebeke
Tel: (+32 51) 778 971
Fax: (+32 51) 778 382

Unifrost NV
Zwevezeelestraat 142
851 Koolskamp Ardooie
Tel: (+32 51) 612 691
Fax: (+32 51) 612 699

Homileez
Gapaardstraat 21
8850 Ardooie
Tel: (+32 51) 746 981
Fax: (+32 948) 830 534

Ardovries NV
Wezestraat 61
8850 Ardooie
Tel: (+ 32 51) 310 621
Fax : (+ 32 51) 305 997

SPAIN

Congelados de Navarra SA
Crta NA-134
Km 16
31513 Arguedas – Navarre
Tel: (+ 34 948) 830 563
Fax : (+ 34 948) 830 534

Industrias Videca SA
Crta Puebla Larga s/n
46270 Castella de la Riebe - Valence
Tel:(+ 34 962) 452 008
Fax :(+ 34 962) 454 128

Veconsa Vegetales Congelados SA
Carrino de IO Ivar s/n
30560 Alguazas
Tel: (+ 34 968) 620 100
Fax : (+ 34 968) 620 552

Bonduelle Espagne
Ctra Valtiera s/n
31320 Milagro – Navarre
Tel (+ 34 948) 409 0 35
Fax: (+ 34 948) 409 0 77

Alimentos Congelados de la Rioja SA
Calle Concordia, 10
26540 Alfaro – La Rioja
Tel: (34 941) 18 29 51
Fax : (34 941) 18 28 31

Oerlemans Foods Espana S.L
Ptda Cases Nov s/n
Jesus Pobre SA
03700 Denia -Alicante
Tel: (+ 34 96) 645 4070
Fax : (+ 34 96) 575 7602

Congelados CHOVER SA
Crta L'Alcudia a Guadazur s/n
Apdo Correos 30
46250 L'Alcudia - Valence
Tel: (+ 34 96) 254 09 66
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FRANCE

Gelagni Bretagne
BP 100
29206 Landerneau
Tel: (+ 33 02) 98 25 30 00
Fax : (+ 33 02) 98 25 32 78

Bonduelle Groupe SA
BP 173
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59653 Villeneuve d Ascq Cédex
Tel: (+ 33 03) 20 43 60 60
Fax : (+ 33 03) 20 43 60 00

Borde SA
BP 4
Les Gardelles
43170 Sangues
Tel: (+ 33 04) 71 77 70 70
Fax : (+ 33 04) 71 77 70 70

Frigor
3 avenue la Gardette
33340 Carbon Blanc
Tel: (+ 33 05) 56 31 70 56
Fax : (+ 33 05) 56 06 04 92

Picard
17, place de la Résistance
92130 Issy les Moulineaux
Tel: (+ 33 01) 41 09 66 66
Fax : (+ 33 01) 41 62 06 00

UNITED KINGDOM

Anglo Continental Foods Ltd
Pelham Road
Cleethorpes
Humberside DN35 7JT
Tel: (+ 44 147) 2 603 788
Fax : (+ 44 147) 2 601 104

Findus
St George's House
Croydon
Surrey CR9 1NR
Tel:(+ 44 208) 686 3333
Fax :(+ 44 208) 681 1828

Bellfield Farms
Heywood Cold Stone
Haneshill Road
Heywood
Lancashire OL102 TP
Tel: (+ 44 170)6 694 600
Fax: (+ 44 170)6 694 605

Euro Norfolk Foods Ltd
34 Surrey Street
Norwich
Norfolk NR1 3 NY
Tel: (+ 44 160)3 760 123
Fax: (+ 44 160)3 760 124

Tendafrost Frozen Foods
West Marsh Road
Spalding Lincs
PE11 2BE
Tel: (+ 44 177)5 767 571

Birds Eye Walls' Ltd.
Station Avenue
Walton-on Thames
Surrey KT12 1NT
Tel: (44 193)2 263 000
Fax: (44 193)2 263 152

Elite Frozen Chilled Foods
Good Food House
New Road Ind Est
Avis Way
New Haven
East Sussex BN9 0HE
Tel: (+ 44 127)3 616 400
Fax: (+ 44 127)3 516 820

Mc Kean Foods
84 Glentanar Road
Glasgow
Strathclyde G22 7UB
Tel: (+ 44 141)336 6543
Fax: (+ 44 141)336 4857

MKG Food Products Ltd
Westgate Aldridge
Walsall
West Midlands WS9 8DE
Tel: (+ 44 192)2 453 131
Fax: (+ 44 192)2 743 077

Homestead Foods Ltd
Format House
108 High Street
Godalming
Surrey GV7 1DW
Tel: (+ 44 148)3 860 006
Fax: (+ 44 148)3 429 837

Booker Plc
Buchingham Count
Kingsmead Business Park
London Road, High Wycombe
Buckinghamshire HP11 1JV
Tel: (+ 44 149)4 555 900
Fax: (+ 44 149)4 555 999

Bonduelle Ltd
5 Michfield Place
12 Michfield Avenue
Reading
Bershire RG1 8EQ
Tel: (+ 44 118)9 957 6020
Fax: (+ 44 118)576 030

Mc Cain Foods Ltd
Havers Hill
Eastfield
Scarborough
North Yorkshire YO 11 3BS
Tel: (+ 44 172)3 584 141
Fax: (+ 44 172)3 581 230

Summerfrost Ltd
Arctic House
Rye Lane
Dunton Green
Seven Oaks
Kent TN14 5HB
Tel: (+ 44 173)2 459 455
Fax: (+ 44 173)2 740 856

ANNEX III

National organizations of manufacturers of frozen products

GERMANY

Deutsches Tiefkuhl Institut e.V
Bonner Strasse 484-486
50968 Kohln
Tel: (+ 49 221) 937 48 0
Fax: (+ 49 221) 937 48 22
e-mail: infos@tiefkuhl Institut.de

BELGIUM

Association belge des entreprises de produits alimentaires surgelés
Avenue de Roodebeek 30
1030 Bruxelles
Tel: (+ 32 2) 438 730
Fax: (+ 32 2) 368 175
e-mail: sia01@sia-dvi.be

SPAIN

Asociación Española de Fabricantes de Vegetales Congelados ASEVEC
Moratin, 28
28014 Madrid
Tel: (+ 34 91) 420 18 21
Fax: (+ 34 91) 420 08 81

FRANCE

Syndicat national des fabricants de produits surgelés
18, rue de la Pépinière
75008 Paris
Tel: (+ 33 01) 53 42 13 30
Fax: (+ 33 01) 53 42 13 35

UNITED KINGDOM

UK Association of Frozen Food Producers
Green Street 1
Grosvenor Square
London W1Y 3RG
Tel: (+ 44 20) 629 06 55
Fax: (+ 44 20) 499 90 95

EUROPEAN UNION

Fédération des associations de fabricants de produits alimentaires surgelés de l'UE
Avenue de Roodebeek 30
1030 Bruxelles
Belgique
Tel: (+ 32 2) 743 87 30
Fax: (+ 32 2) 736 81 75
Email: fafpas@sia-dir.be

ANNEX IV

Trade fairs and specialist press

GERMANY

Intercool Internationale Fachmesse für
Tiefkühlkost, Speiseeis and Kältetechnik
Messe Düsseldorf GmbH
Postfach 10 10 06
D-40001 Düsseldorf
Tel: (+49 211) 45 90 01
Fax: (+49 211) 45 90 668

Anuga
Kölnmesse GmbH
Messeplatz 1
50679 Köln
Tel: (+49 02 21) 82 10
Fax: (+49 02 21) 821 25 74
http://www.koelnmesse.de

BELGIUM

Tavola
Beurzen Advies Bureau
Doornikesteenweg 216
8500 Kortrijk
Tel: (+32 056) 21 11 11
Fax: (+32 056) 21 79 30
e-mail: tavola@hallen.be

SPAIN

Alimentaria
Calle Diputación, 119
08015 Barcelona
Tel: (+34 93) 452 07 22
Fax: (+34 93) 451 66 37
http://www.alimentaria.com

Alimarket (Magazine mensuel)
Calle Albasanz, 14 3° Pl
28037 Madrid
Tel: (+34 91) 327 43 40
Fax: (+34 91) 327 45 22
e-mail: informa@alimarket.es
http://www.alimarket.es

FRANCE

SIAL
1, rue du Parc

92593 Levallois Perret Cédex
Tel: (+33 01) 49 68 51 00
Fax: (+33 01) 47 31 37 75
http://www.sial.fr

LSA (Magazine hebdomadaire)
12-14 rue Médéric
75815 Paris Cédex 17
Tel: (+33 1) 56 79 43 00
Fax: (+33 1) 56 79 41 44
http://www.lsa.fr

UNITED KINGDOM

Foodex Meatex Ltd
P.O. Box 106
Coventry CV7 9EA
Tel: (+44 24 76) 644 200
Fax: (+44 24 76) 644 911

Food Manufacture
(Magazine d'information sur l'Industrie alimentaire)
Marlowe House
109 Station Road
Sidcup, Kent DA15 7ET
Tel: (+44 14 24) 73 11 36
Fax: (+44 14 24) 73 17 57

EUROPEAN UNION

Frozen and Chilled Food Year Book
FMJ International Publication
Queens Way House
2 Queens Way
Red Hill
RH 1 Q5
Tel: (+44 173) 776 86 11
Fax: (+44 173 776 16 85

Frozen Food Buyer
Crier Publication Ltd
Arctic House
Rye Lane
Downtown Green
Seven Oaks
Kent TN14 5HB
Tel: (+44 173) 2 45 15 15
Fax: (+44 173) 2 45 13 83