Frosta
Treating Food the Way Grandmother Did

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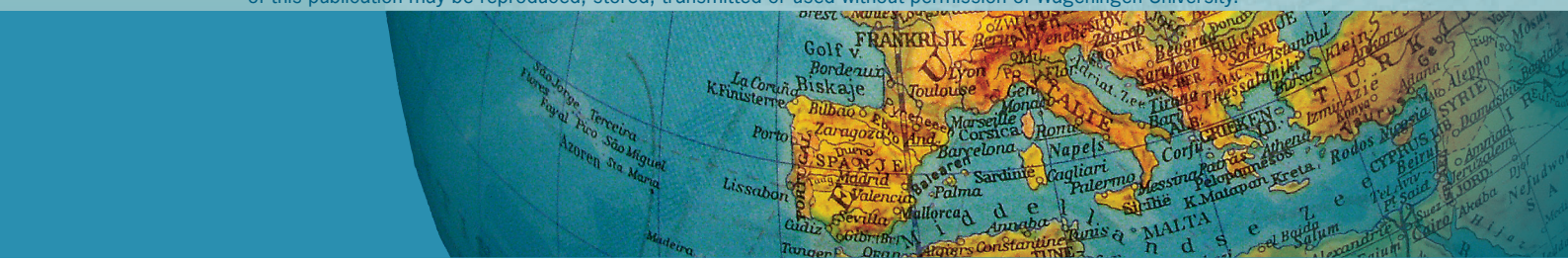
http://www.Frosta-ag.com/



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"If you are what you eat, and especially if you eat industrial food,
as 99 percent of Americans do,
what you are is 'corn'."

Michael Pollan,
American writer and journalist known as a "liberal foodie intellectual"

Strong Beliefs

It has been a tiring day, but filled with the thrill of entrepreneurial enthusiasm. Felix Ahlers, CEO of Frosta AG, an EUR 400 million, frozen food specialist based in Hamburg and active across all of Europe, is in Addis Ababa, Ethiopia today. He has just finished reviewing the last of twenty presentations of business plans proposed by young, aspiring entrepreneurs from around Ethiopia. They are participants in a contest, and Mr Ahlers will sponsor three of them with start-up capital.

> *"Many presenters had this fire in their eyes – that is what I was looking for. It was a tough task to choose the three with the highest potential, and – this being venture capital – probably even they will not make it through to success. But they must try what they believe in – and I have to give them what I believe in."*

There are no apparent business connections between the Ethiopian business plan contest and the frozen food business headed by Ahlers at home in Europe. Neither is there an obvious business connection to the Ethiopian coffee company and coffee brand Solino, which Ahlers started in 2008. Solino remains to date the only coffee brand for sale in Germany where everything is produced in Ethiopia: the beans, the roasting, the package design, and the packaging itself. Ahlers founded this company because he believes that Ethiopians have the right to make the most value out of their own raw materials; because he believes that this is the most environment friendly way to produce and ship such coffee; and because it is a superior product in terms of originality of the taste and genuineness of experience for the German consumer.

Ahlers also believes in the value of industrial scale food preparation being cooked and prepared the way mother or grandmother would cook at home in the kitchen. Ahlers explains why:

> *"The culture and processes of home cooking evolved over centuries and have proven to be safe and savory. But not just that. It is also food preparation that people can understand and therefore fully trust. That is what gives us faith in the healthiness and goodness of this food."*

Since 2003, all frozen food sold by Frosta is subject to the Frosta *Reinheitsgebot* – the Frosta Purity Decree. This means that no additive, preservative, artificial aroma, sweetener, filler, stabilizer or anything else is added to the food. Truly everything that is part of the recipe is also declared on the package. Furthermore, the raw materials are also expected to be free of

any such additives – no separators in the salt, no beta-carotene in the butter, no stabilizers in the cream, or similar. For many of the raw materials, Frosta cannot obtain guarantees from the suppliers that they follow the same purity principles, so the company produces them in-house. They produce soup stocks, curries, noodles, starches and several other food ingredients – all made from pure input materials without any additives. The company even grinds its own salt from rock salt.

To their consumers, the Frosta website explains the *Reinheitsgebot* like this:

> *"Do you cook at home with glutamine acid (E620), chemically modified starch (E1413) and natural aromas? Or with dried milk stuffs, egg yolk powder or yeast extracts?*
>
> *Neither do we!"*

Even after spending eight years on the market with the Frosta Reinheitsgebot and fashioning a healthy business from it, Ahlers is astonished that his company stands alone in the market:

> *"We sell all around Europe, and therefore have a reasonable overview of the various value propositions to the consumers. We do not know of any other company that promises food preparation with such a purity principle. At least not on an industrial scale. There may be small scale or artisanal food sellers doing something similar, but on an industrial scale we are alone as far as we know. Even the bio or organic food producers make liberal use of additives. We do not make a particular claim to be bio or organic, and often we are not in terms of those certifications. Bio and organic mostly refer to how the food is grown, and that is an entirely different dimension. What we care about is that the food that we give to our consumers is pure. Pure in the sense that the consumer can be certain that she or he knows absolutely all ingredients that are part of it, either during production or preparation or as part of the recipe. Pure in the sense that this is the same recipe with the same ingredients with which the meal would be cooked at home by grandmother.*
>
> *Of course we know perfectly well why nobody else is making that same promise. Because it is more expensive and more difficult to produce food this way. Customers are asking for ever cheaper products, and the food industry is ever more inventive to satisfy this preference with more and more technology. Ten years ago Cremissimo ice cream still contained cream. Not anymore today. Real cream has become too expensive for Unilever to make their Cremissimo ice cream with. Therefore our products will never be the cheapest offer in the supermarket, but neither are they automatically the most expensive. We prefer to invest our money in the food – by necessity – because we feel it is more effective than to invest enormous amounts of money in classic advertising. There is a continuous stream of customers who learn about our products and principles one way or the other, and then stick with us."*

Frozen Food Market and Frosta's Position in 2010

The increasing number of one-person households[1], coupled with the re-definition of time as a "commodity" which should be attentively managed, has sustained the growth of the frozen foods market in Germany, the reference marketplace for Frosta and its brand. A qualitative market research survey carried out in Germany in 2003 by MCA Marketing Concept Action shows which adjectives are identified most closely with the idea of frozen foods:

"fast, easy, available, fresh and easy-to-prepare, hugely time-saving"[2].

Frozen foodstuffs offer benefits in food preparation that is easy and fast because the products are already cleaned, cut or sliced, there is all-year-round availability of otherwise seasonal products, and they can be stored at home in the kitchen or pantry for a long time. Foodservice customers such as canteens and restaurants appreciate the same advantages, which make it possible to work more efficiently and cut costs. (**Exhibit 7** on frozen food advantages)

The total retail market for frozen foods amounted to EUR 6.7 billion in 2010 (ice creams not included), while sales to foodservice clients totaled about EUR 4.7 billion, for a market total of EUR 11.4 billion. Over the last ten years in Germany, sales of frozen foods have risen by about 40% from EUR 8.2 billion in 2000 (**Exhibit 8**). Considering product segments, baked goods, meat, potatoes, and other vegetables account for 60% of all frozen food sales (**Exhibit 9**). However, the retail trade and the foodservice market show different patterns of demand. Retail sales are driven by ready-to-cook meals, whereby three segments account for about 50% of the sales volume (by weight) in 2010. Compared to the previous year, soups and stews showed the greatest increase (+17.4%) followed by vegetables (+1.7%) and pizza (+5.1%). In foodservice sales, on the contrary, baked goods and meat amount to about half of the sales volume (by weight), followed by potatoes and vegetables.[3]

As a share of total domestic sales of food, frozen products account for about 11% of the food market in Germany (**Exhibit 10** for frozen foods share in the German food market; **Exhibits 11** to **13** for key figures about the German food market). Together with growth in volume, the market for frozen foods is diversifying its offer with an increased number of products available: AC Nielsen has counted up to 7,300 international barcodes for frozen foods, a rise of 50% versus 2000. Such rapid increase places increasing pressure on retail stores to rearrange their floor plans in order to have enough freezer shelf space for frozen food products.

In the German market, Frosta is a top player in the high-end frozen food segment of 2010, in 2009 accounting for slightly more than 26% of the frozen food, non-ice-cream market outside of the hard discounters (Aldi, Lidl, Norma). Including foodservice and private label

1 *Despite a stable population in Germany, the number of households increased by 2.5 million or 12% over ten years between 2000 and 2010, according to AC Nielsen.*
2 *MCA Marketing Concept Action quoted in Burmann, Feddersen, „Identitätsbasierte Markenführung in der Lebensmittelindustrie: Der Fall Frosta", LIT-Verlag 2003*
3 *Figures from the Tiefkühlinstitut e.V., 2010*

business, Frosta achieved sales of little less than EUR 400 million in 2010. The consolidated results of almost EUR 10 million achieved in 2010 represent 2.5% of sales. (**Exhibits 1** to **4** for key financials and share price developments, Exhibit 5 for share of Frosta frozen food sales in the German retail market over the last eight years)

Frosta is a stock market listed company, in which the Ahlers family holds around 75%. The management and employees own 5%, and the remaining shares are traded on the German stock exchange. Dating back to 1905 when the offshore fishery Nordstern AG was founded, their business has expanded, entering new product segments and acquiring new production facilities, and in 1997 it was renamed Frosta AG. The company is actively promoting its brand Frosta for sales in the frozen food, non-ice-cream segment of supermarkets, with a particular emphasis on Germany, Austria, Switzerland, Italy, Poland, Czech Republic, Hungary, Romania, Slovakia and Russia. There are also two business units for production of private label frozen foods and for foodservice supplies. The company does not disclose the share of sales between the business units or the countries. (**Exhibit 6** for information on operations and products)

Changing Everything at Frosta – and Nearly Killing It in the Process

When Ahlers joined the company in 1999 he was disturbed by what he saw. He noticed that their own employees preferred not to eat their products. Informally asking around, the reason seemed to be that the employees knew how and with what ingredients and processes the food was produced and also because of the industrial taste. Ahlers, who completed vocational training as a cook, is well aware of all the ins and outs of producing a meal in the kitchen, adding spices and handling ingredients to produce a nourishing meal. Industrial cooking, however, seemed to be very different from home cooking, with lots of ingredients that were used as fillers, replacers, tasters, texturizers, and processes that seem to be cutting corners rather than adding value. Ahlers wondered why this was supposed to be necessary.

Looking in the books rather than the pots, what Ahlers saw was not flattering either. Even if Frosta AG, with its main brand Frosta and its private labels, was able to top record sales of about EUR 299 million in 2001, the share represented by the brand Frosta as opposed to the private labels had been steadily declining: EUR 134 million booked in 1997 shrank to 84 million in 2001[4]. Despite expansion of the company in the years 1997 to 2002, the brand was not able to keep up and show similar success.

Analyzing the reasons why the brand was suffering, Ahlers and his management team realized that they were not well enough differentiated from their competitors. In the food market, Frosta was trapped between large consumer goods companies with brands like Iglo (Unilever until 2006) plus powerful marketing budgets and the low-end discounter segment where cost was the only criterion that mattered. Frosta was in between, in the medium price segment with fair and decent products, but did not show a cutting edge either on the quality or on the price side. All of that led to a downward spiraling effect in which retailers were reserving less and less shelf space for the Frosta brand, contributing further to its decline.

4 *Frosta Annual Report 2001*

With youthful vision, Ahlers set out to convince the management that a breakthrough strategic repositioning was needed to ensure that the brand would not suffocate. Relating back to the tradition of the German Purity Decree for beer (*Reinheitsgebot*)[5], Ahlers decided to bet on a radical differentiation of the brand via refinement and purification of the ingredients and production processes. Thus the Frosta *Reinheitsgebot* was born, introduced in 2003 for all Frosta products in Germany across the board. It is based on the two pillars purity and transparency:

- The *Reinheitsgebot* ensures that no additives are used (no colorants, no taste improvers, or anything else) and that only the highest quality ingredients are to be found in the final product.

- Frosta publishes all ingredients on its product in an easy-to read, non-confusing list which allows the customer to be fully informed about what they are purchasing. (**Appendix 1** for a comprehensive overview of the *Reinheitsgebot* at Frosta and **Appendix 2** for the full text of the old Bavarian purity decree for beer)

Ahlers did not have to wait too long to see the first results of the re-positioning – in the form of exploding production costs.

> *"I will just give you an easy example of what it means in terms of production costs to move away from industrial taste improvers and embrace freshness and quality. You will also be surprised to see how many options there are to create the taste of a product. For instance, raspberry yoghurt. For 100 kg of final product, if you take nature-like tasting aroma, which is gained out of artificial substances, the costs for the aroma are about €0.06. A natural aroma which tastes similar to raspberry, but is obtained from mushrooms is more expensive and will cost about €4.00. Then you have the premium products: materials extracted from real raspberries will cost approximately €12.50. Fresh raspberries will cost you more than €30.00 in order to aromatize 100 kg of yoghurt!"*

Keeping these costs under control and passing them to the customers – getting the consumer to pay a premium price for a premium product – did not prove easy, and the brand had to cope with hard losses. Internal and external factors combined to complicate the re-launching of the brand in its new, pure fashion. A weak economic context and the acrylamide food scare[6] in 2003 reduced food product sales throughout the market. Coupled with the company's increased price level, Frosta had to absorb the impact of the full range of difficulties. There was an ongoing distribution issue which did not allow optimal presence in the retail stores.

5 *The Reinheitsgebot, sometimes called the "German Beer Purity Law" or the "Bavarian Purity Law" in English, was a regulation concerning the production of beer in Germany. In the original text, the only ingredients that could be used in the production of beer were water, barley and hops. The law has since been repealed but many German and American beers, for marketing purposes, continue to abide by the rule. The law originated in the city of Ingolstadt in the Duchy of Bavaria on April 23, 1516, though the rule was put forward already in 1487, concerning standards for the sale and composition of beer. (Wikipedia)*

6 *Acrylamide (or acrylic amide) is a chemical compound; it is a white odorless crystalline solid. Acrylamide occurs in many cooked starchy foods, and it is of concern as a possible carcinogen. Acrylamide was accidentally discovered in foods in April 2002 by scientists in Sweden, who found the chemical in starchy foods such as potato chips, French fries, and bread that had been heated. From Sweden, the concern spread to Germany where chemists also found traces of the substance in foods. This resulted in the destabilization of consumer trust in frozen food. Producers of French fries in Germany (for instance McCain and Agrarfrost) recorded double-digit sales decreases compared to the previous year, which can be attributed in great part to the problematic issue of acrylamide. (Wikipedia; Der Fall Frosta, p. 59)*

That plus a television advertisement campaign which not only eliminated classical elements of their branding (the jingle and Peter the cook), but was also poorly positioned, left customers lost and confused, unable to understand why Frosta had become so expensive. The television commercial did not capture customer emotions, the packaging did not convey clearly enough what the *Reinheitsgebot* was about, and the price was high without understandable benefit. Frosta seemed to be having trouble mastering the four P's of Marketing 101 (Product, Placement, Price, Promotion). The effects on sales were quickly evident, plummeting by 44% within one year, with stock prices showing a steady decrease throughout the whole 2003.

Ahlers and his team did not postpone taking action on this. They commissioned an in-depth quantitative and qualitative analysis of the frozen foods market, its segments, its players, consumer behavior, response to the new branding, customer segmentation[7]. They consulted with experts and looked closely at the reactions of the customers to the new brand image. They understood that the *Reinheitsgebot* idea was a winning one, but that not enough customers were aware of all the nuances and benefits. Results from their investigation showed that the more customers were informed about the new Frosta products, the higher these products were rated. Old customers who could not identify with the purity of food products were proportionally less aware of the details. Interestingly, among those who knew the Frosta *Reinheitsgebot* but did not judge it positively, the most frequent reason was the rationale that taking additives and colorants out of the food would make the food taste worse. Frosta realized they had a knowledge and a communication problem: How can customers be expected to pay a premium price if they do not fully understand or appreciate the extra quality that Frosta delivers? The Frosta management took action in multiple avenues:

- Improvement of the TV spot as the most important channel through which Frosta customers are reached included the old Frosta jingle and the well-known Frosta cook Peter to increase recognizability of the brand, which had suffered after the brand was relaunched.

- Focus on the healthiness and tastiness of Frosta products was achieved by co-branding with a popular German magazine for women in the Brigitte Diet line of wholesome, low-calorie meals.

- New packages were introduced, which displayed details of the *Reinheitsgebot* more clearly and increased awareness of its benefits.

- New products were introduced.

Within a few months after launching that campaign to powerfully differentiate the attribute of "purity", Frosta was able to attract 200,000 new consumer households that did not buy frozen food products before[8]. By 2005 the brand Frosta was able to record positive growth again – for the first time in seven years – with 5% YOY.

7 Burmann, Feddersen, „Identitätsbasierte Markenführung in der Lebensmittelindustrie: Der Fall Frosta", LIT-Verlag 2003
8 AC Nielsen in „Der Fall Frosta", p. 156

Making Sustainability Sustainable

Frosta has thus been able to shape a new market niche in the frozen foods market and settle into it comfortably. The brand is constantly winning new customers, recognizability has been re-established, and mediocre branding has been rejected along with unappealing ingredients. However, Ahlers knows that this expensive model requires continual fine-tuning and care. Learning lessons from steps they took to avoid failure in 2003, he has invested strong efforts in nurturing a customer relationship based on trustworthiness as the only way to keep the business as sustainable and healthy as the food they produce and sell.

Frosta products are expensive. Not to trespass the psychological hurdle of 3 euros per package, they had to downsize their packages. As opposed to other frozen products which appeal to impulsive, binge-eating consumers of fries and pizza, Frosta food is known and appreciated by people who are willing to spend time on what they ingest, and to pay for it. Analysis shows that the prototypical Frosta consumer after introduction of the *Reinheitsgebot* is a woman 21 to 39 years old, in most cases a student or in vocational training, who lives in a household of one or two persons. In German cities, this often translates to green-oriented, anti-nuclear energy young people who live in nicely refurbished houses in the old parts of downtown and sip on a latte macchiato in a bar while attending to some networking and websurfing with their wifi-connected laptop. Thus, this is an informed and demanding customership.

Information-driven customers have to be fed with information. Ahlers has recognized the connection between trust, transparency and new technologies, so that a great part of the trust-building work Frosta has been doing runs on the internet. On its website, Frosta displays the ingredient lists and explanations on the what-is-what of company products, with indications on what comes from their own production, what is bought in which part of the world, how the product is shipped, how it is treated, how much CO_2 the consumer will save by buying frozen foods, and more. (**Exhibit 14** for comparison of CO_2 emissions for different preparations of the same product)

This is all one-way communication though. To allow two-way streams of information, Frosta has set up a company blog (www.Frostablog.de), the first German corporate blog, launched in May 2005, where employees and customers can discuss products, new recipes and everything in the world of healthy food, from processing to new ingredients, news from other parts of the world and also criticism of products or initiatives that do not live up to the customer's expectations. The anonymity of the internet, and the pledge that Frosta has taken to publish uncensored whatever consumers want to say has led to a fruitful and vivid community of Frosta fans who can exchange positive and less positive opinions. Rating the new paella mix, for example:

> *User **sdf**: "Exquisite"*
>
> *User **abc**: "I have always thought that there should also be some shrimps and shellfish in a Paella. For this price, there should just be more stuff in it."*
>
> *User **Diana**: "This is my favorite dish. Could it be because of the saffron?"*
>
> *User **Susanne**: "This is my favorite in the whole Frosta series. Really: where in the world do you find a Paella with more shrimps and shellfish? I really don't think **abc** is fair."*

This way, Frosta is able to keep the costumers informed and at the same time gains privileged access to their feelings and ratings about products and the company. The website also features a "Products Cemetery", where all the products that became too expensive to be produced are archived on the site, waiting to be brought to life again if demand arises.

Thinking back on these years of relationship with the customers, of dialogue and interaction, Ahlers likes to think of what he has built as a triangle. The Frosta *Reinheitsgebot* is one of the corners, translating to the customer feeling, "This is good for me!" The seal on each product certifies the healthiness and wellness that Frosta products bring to those who purchase them. At the second corner of the triangle, Frosta offers to the consumer and the environment a promise to procure food from sources that do not disturb the harmony of nature, and to process it in ways that preserve the environment. These two angles of the customer relationship are completed with the third corner, the keystone of trust building and transparency.

> *"We are not saying that the food sold by our competitors is unsafe to eat. We have full faith in the regulatory system and the ethical behavior of our competitors not to allow unsafe food to the market. But there is something else that gets lost – and this is trust. Consumers know that the food they buy in the supermarket is full of thousands of ingredients that they do not understand and that are not being declared on the label. If they cannot understand it, then they cannot trust it either. You could argue that in a modern society it is not possible that everybody understands everything. Most people also do not understand how a television works or what it consists of, but still trust it to be part of their life. But I believe with food this is different. At least I believe food consumers should have full transparency about what their food is made of – so that they can make honest choices, so that they can trust us."*

Believing in Trust

It has taken years of work to create a bond of trust between Frosta and the German consumer, and it has paid off. The *Reinheitsgebot* has proven to be a good choice, well received in Germany. Of course, several characteristics of the German lifestyle were on the side of Frosta: high income, historical attention for greenness and environment, high percentage of educated people who can make informed choices and want to be treated as informed customers. Medium-high

income and medium-high education are two aspects which characterize the Frosta customer in Germany, together with an urbanized setting, persons living alone or with one other person at most, with little time to spend on cooking. Could it be that these features, and the business Ahlers has created, are tailor-made for the German market? Can the Frosta brand remain true to itself while entering new markets, or is the *Reinheitsgebot* too German to be appealing to Italians, French and Russians? Do people south of the Alps share this pursuit of "pure nutrition"? Or could it be that cuisine habits are so dissimilar that massive action would be required to successfully introduce the *Reinheitsgebot* in other markets?

After finishing high school, Ahlers began his career as a cook, receiving his vocational training at Hotel Le Bristol in Paris. He then was a fish cook for one of the most renowned fish restaurants in Rome, the Alberto Carlo. He returned to academia and studied economics at Université Paris Dauphine IX, then received an MBA degree from the Kellogg Graduate School of Management in Chicago. This was followed by three years as hotel manager of the Sheraton Hotel in Frankfurt, before joining Frosta in 1999 as general manager Poland. In 2003 he joined the executive board in charge of marketing, and became CEO of the company in 2010, when his father retired to the supervisory board.

The year 2010 was also the first time since the nearly catastrophic but ultimately successful introduction of the Frosta *Reinheitsgebot* in 2003, when the strategy was again severely tested. Sales dropped by 4.5% and profits by 18%. Frosta was caught in the volatility of raw material prices, plus some weather induced sharp cost rises in vegetables that the company needed to pass on to consumers, but not always could. While the Frosta brand business still recorded increases in sales (though losses by volume), several accounts in the private label business unit had to be given up, because Frosta was not willing or able to reduce costs sufficiently. Both effects together caused the deterioration in sales and profits.

In his first letter to the shareholders in the Annual Report 2010, Ahlers did not bend:

> *"In spite of massive increases in the prices for raw materials, we still use only the finest ingredients. We feel very strongly about this, as it is the only way to convince customers and consumers on a sustained basis that our products are the best."*

Talking about the strategy forward, Ahlers is quietly optimistic:

> *"We know that most consumers will only pay extra for a benefit that they can directly experience – which mostly means that the food must taste better. We believe that our food does taste better. The Reinheitsgebot is not only a more honest and trustful way of selling food, and frozen food in general is not only the most energy-efficient, and least wasteful, and most climate-friendly, and most nutrient-preserving way of getting food onto the table – but we are convinced that all of this also produces better tasting food. For the way we produce our food, we must unfortunately be more expensive than many of our competitors. It will be the customers who decide whether they find better value with us nonetheless. We think the market tells us that we are right. Even during last year's crisis our brands were growing, and we keep gaining market shares in a steady way. Our value proposition takes more time than we thought to penetrate the market.*

> *Yet, from observing our uncensored Frosta blog we know that steadily more customers are getting to know us. We are also steadily expanding our product offering. Our 2010 launch of vegetable mixes sold faster than we could procure raw materials for it. Our newly launched recipe suggestions that we are communicating online and via our packaging to our consumers are well received. I have no worries that we are running out of room to grow handsomely with what we do. Moreover, we will expand our Reinheitsgebot also into new markets outside Germany, which will be an interesting challenge to get right."*

Ahlers keeps on wondering why he is so alone with his beliefs. He is also not sure whether being alone in the market with the *Reinheitsgebot* is a good thing or not for Frosta. Would more customers become aware of its benefits, if more companies were to adopt such principles and therefore grow the market more rapidly? Or would this only lead to more competition in what may be a limited market niche? Regardless, Ahlers carries on with what he believes in.

Appendix 1 The Frosta Reinheitsgebot – Purity Decree

The Original Frosta Purity Decree

In Frosta food products there may be

- no artificial colorings or flavorings
- no addition of flavor enhancers
- no emulsifiers or stabilizers
- no chemically modified starches or industrially produced trans fats

The Frosta commitment to pure ingredients and products

1. **No additives**
   - Traditionally prepared soup stocks: instead of ready-to-use stocks, flavor enhancers, aromas and starch extracts, Frosta exclusively uses self-prepared products.
   - Spice blends: Frosta uses its own spice blends and does not make use of flavor enhancers or other additives.
   - Fresh milk: instead of industrially prepared products such as "dried milk derivatives" or "lactose", Frosta uses fresh milk and fresh cream exclusively.
   - Fresh butter: Frosta uses fresh butter from German dairies, without the common addition of a beta-carotene coloring matter to enhance the yellow color.
   - Bleach-free starches: Frosta products are prepared with potato or rice starches only, with no chemically obtained emulsifiers or whitening agents.
   - Pure rock salt: Frosta uses pure rock salt only, without added iodine.

2. **Best ingredients**
   - Self-prepared pasta: Frosta prepares pasta for its recipes at company production facilities.
   - Fresh garlic: garlic that Frosta uses does not come from industrial garlic powder, but from fresh garlic cloves pressed on Frosta premises.
   - Fresh pepper: in 2011 Frosta has begun to crush its own pepper.
   - Traditionally aged cheese: Frosta uses traditionally prepared cheeses exclusively (Gorgonzola, Parmesan) which do not contain nitrates or colorants.

3. **Transparency**
   - Frosta discloses 100% of the ingredients clearly and legibly on the package.
   - In the ingredient list, Frosta does not name any items collectively, such as "herbs" or similar, even if this is allowed by law.
   - Frosta does not leave "hidden ingredients" undeclared, which according to the Pure Food Law of Germany do not require declaration, if the substance has no "technical impact" on the end product.
   - Frosta provides further information on some ingredients by adding details concerning the production and origin.

Source: Frosta materials

Appendix 2 The old Bavarian Purity Decree for beer

Purity Decree of 1516

How we want to have beer tapped and brewed in rural areas during summertime and winter:

In agreement with the Council of our Land, We the Sovereign here do order, stipulate and require that from now on in all parts of the Principality of Bavaria, that is in rural areas as well as in cities and towns lacking a pertinent ordinance, the Bavarian "Maß" (1.069 liter mug) and "Head" (a slightly smaller bowl) of beer shall not cost more than 1 Pfennig in the currency of Munich during the time from St Michael's to St George's Day, whereas from St George's Day to St Michael's the "Maß" is not to be served or sold for more than 2 Pfennigs in that currency, and the "Head" not over 3 "Hellers" (usually worth half of a Pfennig), and otherwise punishment threatens and will be carried out as stated below. If anyone should for any reason have beer or brew it otherwise than in March ("Märzenbier"), it shall never be served or sold for more than 1 Pfennig per "Maß". It is our particular will that in our cities and towns and rural areas no ingredients other than barley, hops and water be used to make beer.

Every time transgressors knowingly violate this order, they will be punished unrelentingly by confiscation of said barrels of beer through court authorities. Where, however, a local proprietor buys one, two or three pails of beer (approximately 60 "Maß") from one of the city, town or rural breweries and passes it on to the rural population, the prohibition falls although only for that proprietor, and then he is allowed to serve and sell the "Maß" or "Head" of beer 1 "Heller" higher than priced above. It is also to be expressly understood and emphasized, that We as Sovereign in the Land are the only one to limit beer trade, if it should become necessary in public interest during a time of great need resulting from rising prices due to scarcity of grain (since in our Land harvests vary in different regions and growing seasons).

Valid since the
23rd of April, 1516

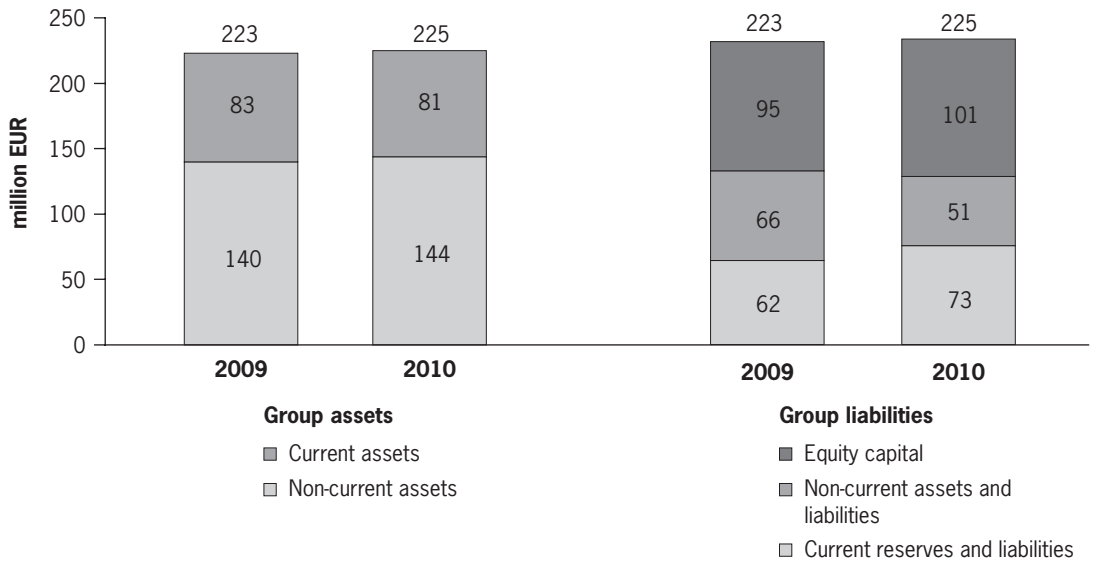
Source: Translation from old German text by Joy Christensen

Exhibit 1 Key financials for Frosta 2006–2010

(million EUR)	2006	2007	2008	2009	2010
Sales	307.3	348.7	391.8	411.3	392.6
EBITDA	27.4	30.2	32.0	32.5	29.8
as % of sales	8.9%	8.7%	8.2%	7.9%	7.6%
Depreciation	-10.8	-10.9	-11.2	-11.6	-12.1
EBIT	16.6	19.3	20.8	20.9	17.7
as % of sales	5.4%	5.5%	5.3%	5.1%	4.5%
Financial result	-2.0	-2.7	-3.1	-3.5	-3.5
Result from ordinary business activities	14.6	16.6	17.7	17.4	14.2
as % of sales	4.8%	4.8%	4.5%	4.2%	3.6%
Taxes	-4.2	-4.4	-5.6	-5.4	-4.4
Consolidated result for the year	10.4	12.2	12.1	12.0	9.8
as % of sales	3.4%	3.5%	3.1%	2.9%	2.5%

Source: Frosta Annual Report 2010

Exhibit 2 Balance sheet structure



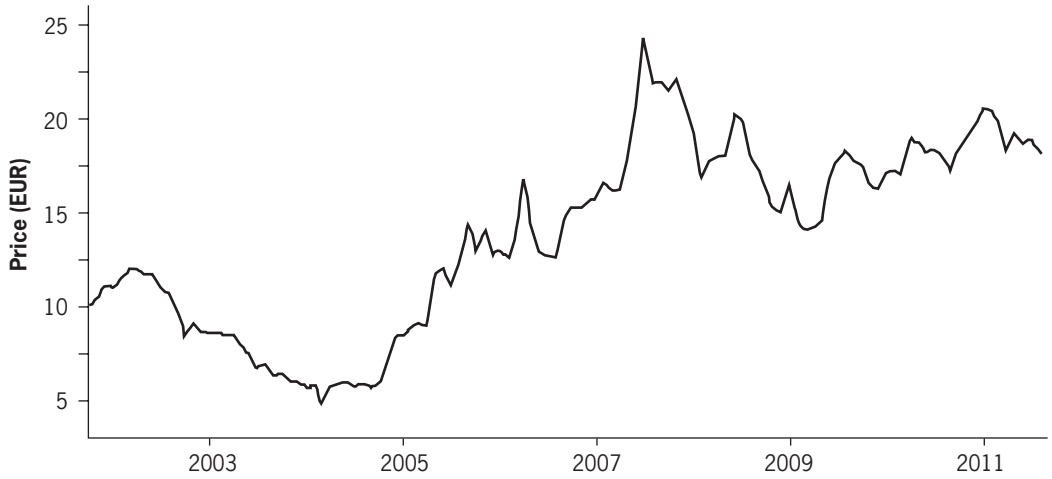
Source: Frosta Annual Report 2010

Exhibit 3 Corporate stock information

	2009	2010
Number of stocks	6,450,833	6,531,457
Equity capital on consolidated balance sheet (thousand EUR)	94,829	101,229
Equity capital per stock (EUR)	14.70	15.50
Stock price at year end (EUR)	17.20	20.50
Year high (EUR)	18.35	21.00
Year low (EUR)	13.15	16.40
Number of stocks sold	310,282	597,021
Price-earnings ratio (Price at year end/annual net profit)	9.25	13.60
Dividend payout per stock (EUR)	0.75	0.75
Dividend yield (Dividend/price at year end)	4.4%	3.7%
Group annual result (thousand EUR)	12,012	9,848
Annual result per stock (EUR)	1.87	1.52
Cash flow before change in working capital per group (thousand EUR)	25,100	21,769
Cash flow before change in working capital per stock (EUR)	3.89	3.33

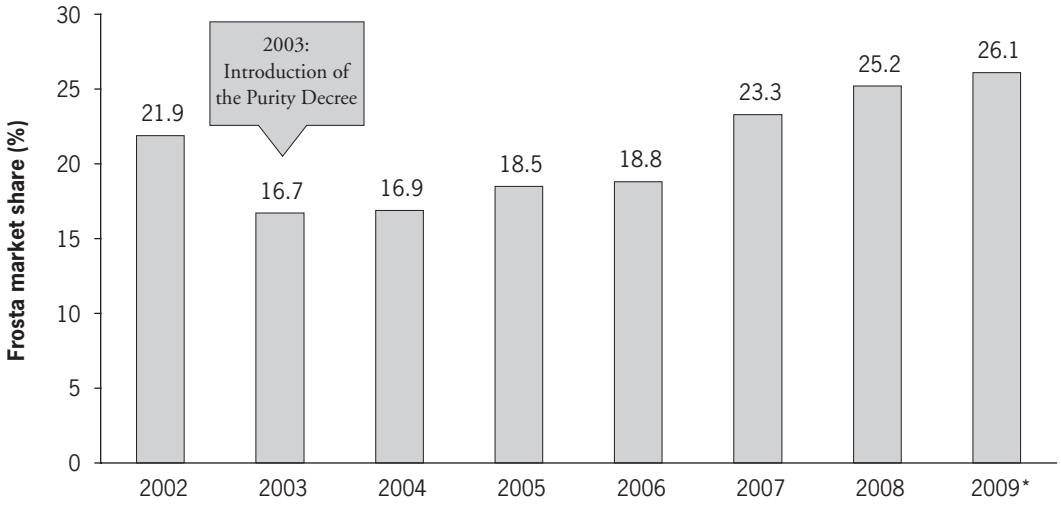
Source: Frosta Annual Report 2010

Exhibit 4 Stock price development 2003–2011



Source: Frosta materials

Exhibit 5 Share of Frosta sales in the German frozen food retail market



**January to September*
Frosta portion of frozen food retail sales excluding ice creams in Germany (without the market shares of hard discounters Aldi, Lidl and Norma)

Source: AC Nielsen market track, 2010

Exhibit 6 Frosta operations and products

Production and sales sites

At the production facilities in **Bremerhaven** on the North Sea, the headquarters and largest location of Frosta AG, the company has processed frozen fish products since 1962. Fruits and vegetables were added to the array, and frozen ready meals went into production here in the 1980s.

The production location at **Bobenheim-Roxheim** is close to Worms in the warm Southwest of Germany. Surrounded by vegetable and spice fields, these operations are specialized in the processing of freshly harvested spinach, cauliflower, and a large assortment of herbs and spices. Baking facilities for a selection of pastry dishes are also located here.

The production site at **Lommatzsch** near Dresden in the East of Germany is located in one of the country's most fertile areas for the vegetable harvest.

The **Bydgoszcz** production facility in Poland was acquired by Frosta AG in 1999. Frozen fish and ready meal products are finished here and sold primarily in the East European market. Since 2006 the Gourmet line for the Frosta brand in Germany is also produced at this site.

Production sites (■)
1. Bremerhaven
2. Bobenheim-Roxheim
3. Lommatzsch
4. Bydgoszcz

Sales offices (●)
1. Hamburg
2. Bremerhaven
3. Bydgoszcz
4. Moscow
5. Prague
6. Paris
7. Vienna
8. Budapest
9. Rome

Exhibit 6 Frosta operations and products, continued

Presence in the European market

Germany, Austria and Switzerland
The Frosta brand has been setting new standards since 2003. With the Frosta *Reinheitsgebot* (purity decree), Frosta is the first and only brand of frozen food in Germany to completely abandon the use of taste enhancers, colorings, aromas, stabilizers and emulsifiers. Neither may any of the ingredients or raw materials contain additives of any kind. For example, the cook only uses real butter (without coloring) for Frosta dishes, and no margarine. As the market leader for frozen ready meals in Germany, Frosta is now expanding its hitherto small assortment of Frosta dishes in Austria and Switzerland.

Poland
Frosta is the market leader for frozen fish products in Poland, offering an assorment of 50 different products in all, also including ready meals and vegetables.

Hungary
The Frosta brand has been represented in Hungary since 1994, where more than 30 different Frosta products are now available. A similar assortment of Frosta products is also available in Romania.

Czech Republic
Frosta products have been marketed in the Czech Republic since 1994, where a total of 25 different Frosta products are available. This point of service also distributes to Slovakia.

Russia
Since 1999, Frosta products can also be found in Russia, where currently over 40 different products in the areas of fish, poultry, vegetables and ready meals are available.

Italy
The Frosta brand is represented in Italy with numerous fish specialties, and the assortment is being expanded.

Exhibit 6 Frosta operations and products, continued

Product groups

International dishes (Chicken Paella, Chicken sweet-sour, Asia Teriyaki, Chicken Chakalaka, Paella, Nasi Goreng, Bami Goreng, Curry chicken, Thai Green Curry, Steakhouse mix, India Tandoori)

Traditional German dishes (Spaetzle noodles with chicken, beans and carrots, Fried potatoes and chicken, Chicken and noodles, Chicken fricassee, Hamburger patties and broccoli, Wild salmon baked in pastry coat)

Italian pasta (Tortellini in tomato sauce, Rigatoni pecorino with tomatoes, Fettuccine with fish and shrimps, Chicken with fettuccine, Tagliatelle with wild salmon, Cannelloni ricotta filled with spinach, Lasagne with vegetables, Lasagne Bolognese, Maccheroni carbonara, Tortellini in cheese sauce)

Vegetable servings (Green asparagus, Dish à la Crete, Dish à la Toscana, Thai dish, Dish à la Provence, Mexican dish, Balkan dish, Sommer vegetables, Caribbean dish)

Organic vegetables (Carrots, String beans, Peas, Summer vegetable mix)

Light meals (Minestrone, Red curry soup, Risotto Primavera, Vegetable soup, Tomato soup with sweet basil, Thai coconut soup, Potato soup, Pasta pesto verde, Mango curry rice)

Fruits (Mango, Tropical fruits, Berry mix with cherries, Strawberries, Raspberries)

Herbs (Parsley, Dill, Herbal mix, Soup herbs, Italian spices, Chives, Sweet basil)

Source: Frosta materials

Exhibit 7 Characteristics and advantages of frozen food products

Cost-effectiveness

1. Making the same dish from scratch can cost an average of **30% more** than buying the frozen counterpart.
2. Frozen food is **not season-dependent** and therefore unaffected by out-of-season price rises.
3. It is more cost-effective to **ship many frozen foods** than to use air freight to deliver them fresh.

Portion control

1. New frozen food packaging makes it possible to remove separate **portions as needed** – the rest can be stored and used at a later date.
2. Pre-prepared frozen meals are packed in specific quantities for **appropriate serving sizes**.
3. Frozen fish, meat and poultry products are sold in consistent sizes per pack meaning there are **no extra large or small portions**.

Variety and availability

1. Frozen products makes **tasty seasonal food available all year round** – such as New Zealand lamb, asparagus and passion fruit.
2. Frozen foods with **more exotic ingredients** can be sourced and stored year-round.
3. Using frozen food offers **better stock control** – longer shelf life allows for advanced purchase and longer term storage.

Labor savings

1. Frozen food **reduces the time spent** preparing food in the kitchen – such as peeling, chopping, de-boning and de-skinning.
2. Choosing frozen products **reduces cleaning time** in the kitchen – as the number of cooking steps is reduced.

Exhibit 7 Characteristics and advantages of frozen food products, continued

Freezing technology

1. Most commercial foods are now **quick frozen** – this process minimizes any cell structure damage.
2. It is impossible for bacteria, yeast or mould to multiply on frozen food, meaning that **food will not spoil** as long as it is stored at the correct temperature.
3. Freezing preserves food **in its freshest state**, locking in the nutritional qualities, fresh flavors and natural textures of the food.

Freshness

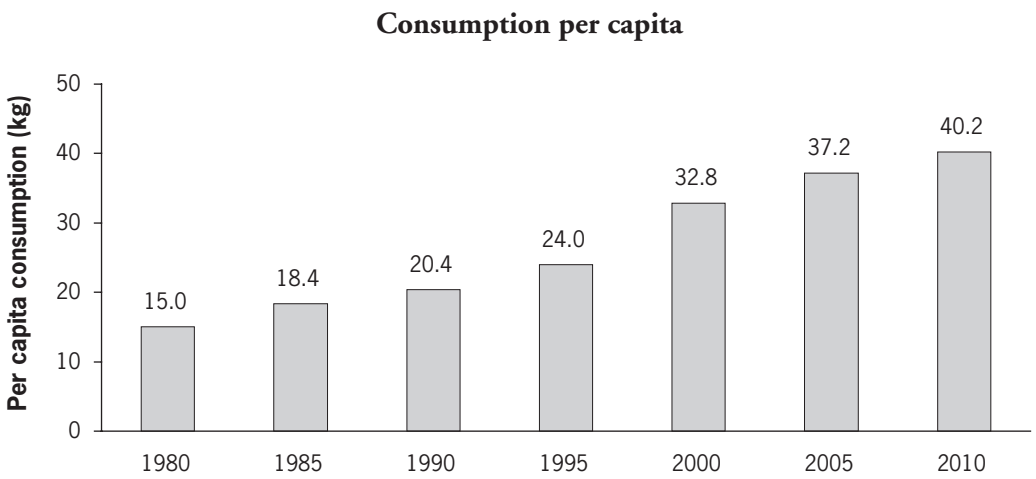
1. **Frozen fish** is frozen at sea soon after it is caught. Fish sold as fresh may move through the supply chain for up to 14 days before reaching the wholesaler or retailer.
2. Fresh produce can spend from three to seven days in the supply chain, causing their nutritional qualities to diminish.
3. Quick freezing techniques used in the manufacture of frozen breads and pre-prepared meals take products **from cooked to frozen in minutes**.

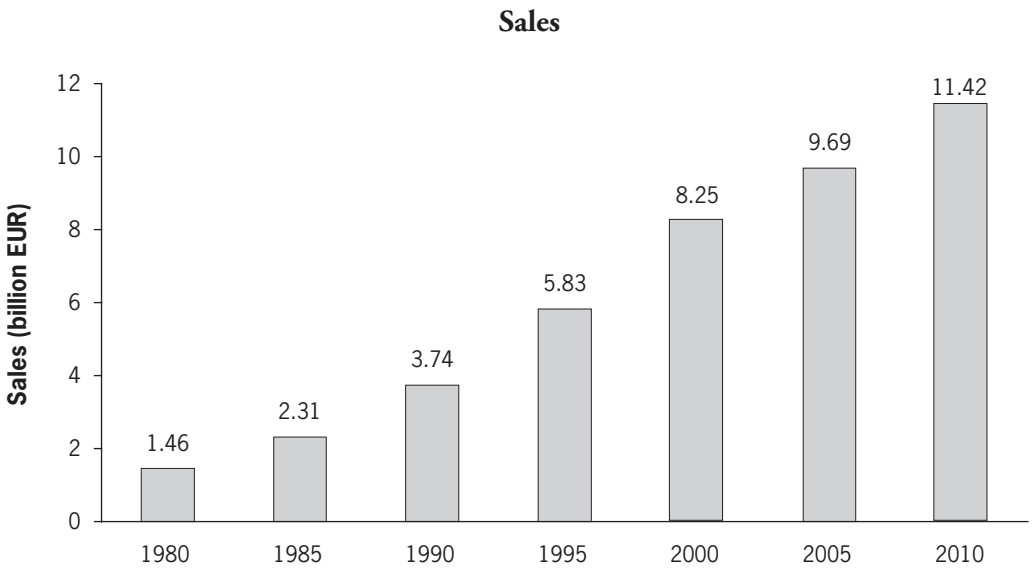
Nutrients

1. In scientific tests, frozen vegetables have proven to contain the same and often **higher levels of vitamins** than fresh vegetables.
2. Frozen vegetables have **nutritional qualities locked** in and remain in this fresh state until cooked, whereas the nutritional content of fresh vegetable produce starts to decrease as soon as harvested.
3. Freezing is an entirely natural process and needs **no preservatives**.

Source: The British Frozen Food Industry, Fresh facts on frozen, 2010

Exhibit 8 Frozen food market in Germany 1980–2010



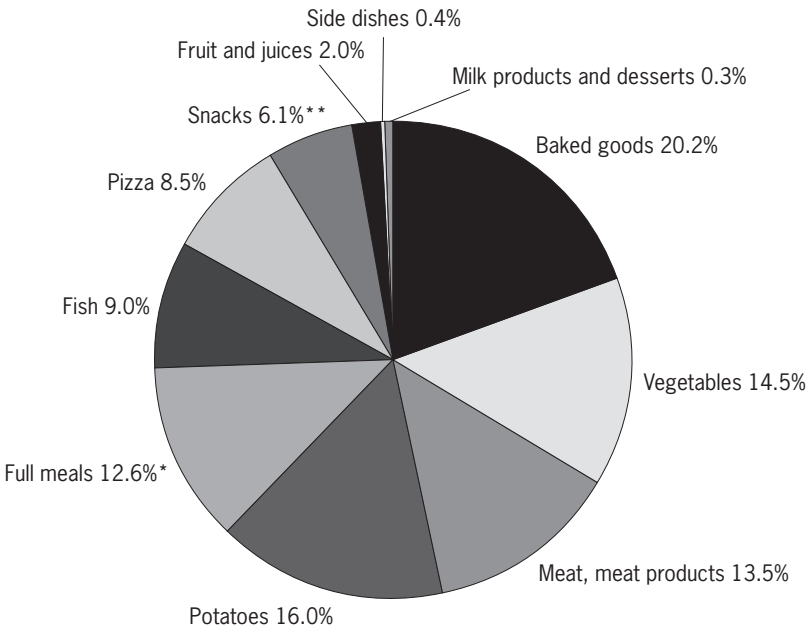


Ice creams not considered

Source: Tiefkühl Institut e.V., Cool facts 2010

Exhibit 9

German frozen food market by segments 2010

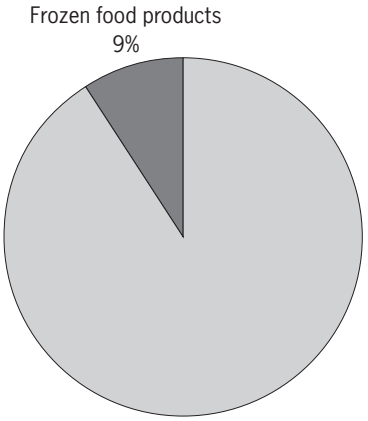


** including soups and stews*
*** including cheese*

Source: Tiefkühl Institut e.V., Cool facts 2010

Exhibit 10

Frozen food sales as share of all food product sales in Germany 2009

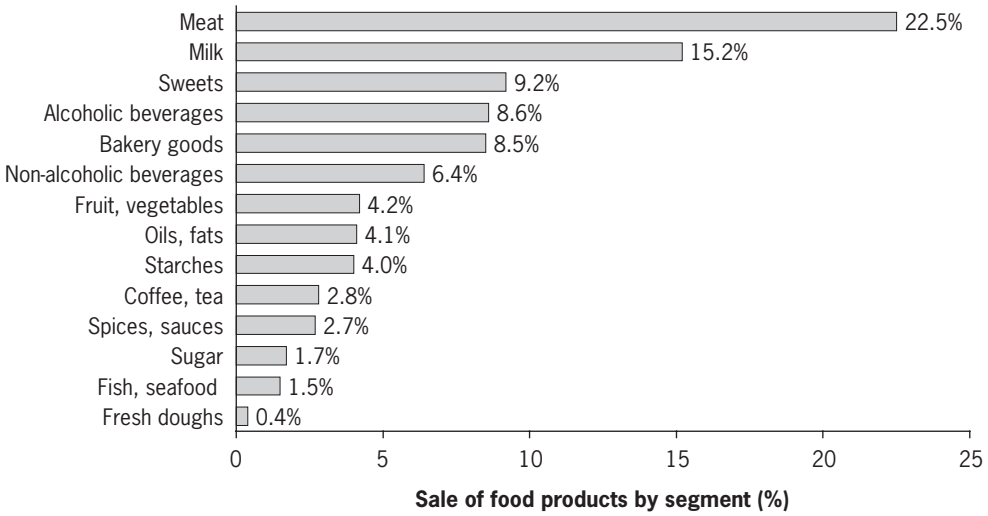


Total EUR 109.80 billion

Frozen food products: EUR 11.28 billion

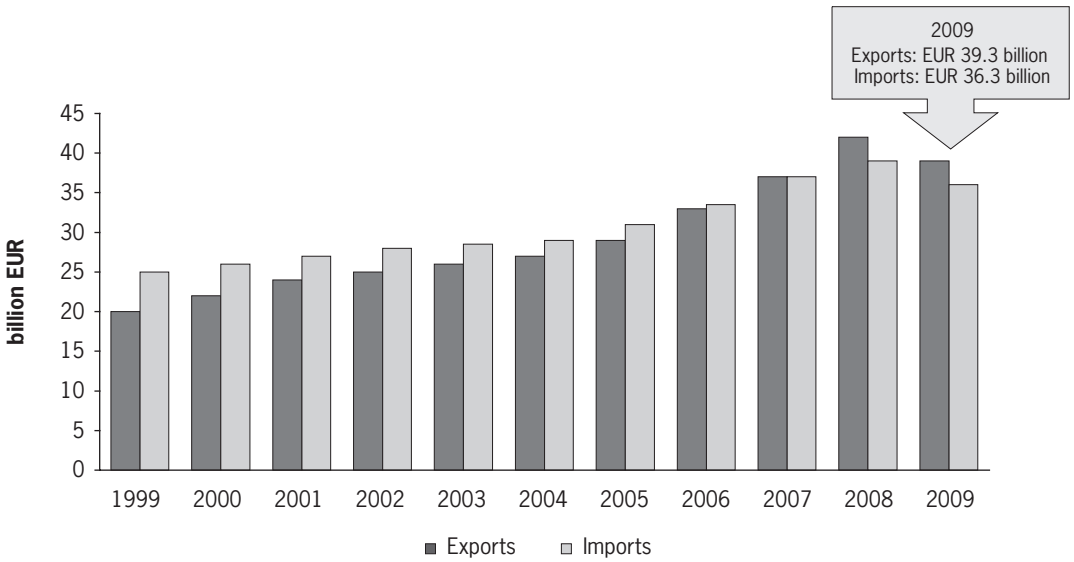
Source: Tiefkühl Institut e.V. and Bundesvereinigung der Deutschen Ernährungsindustrie e.V.

Exhibit 11 Food product sales in Germany 2009



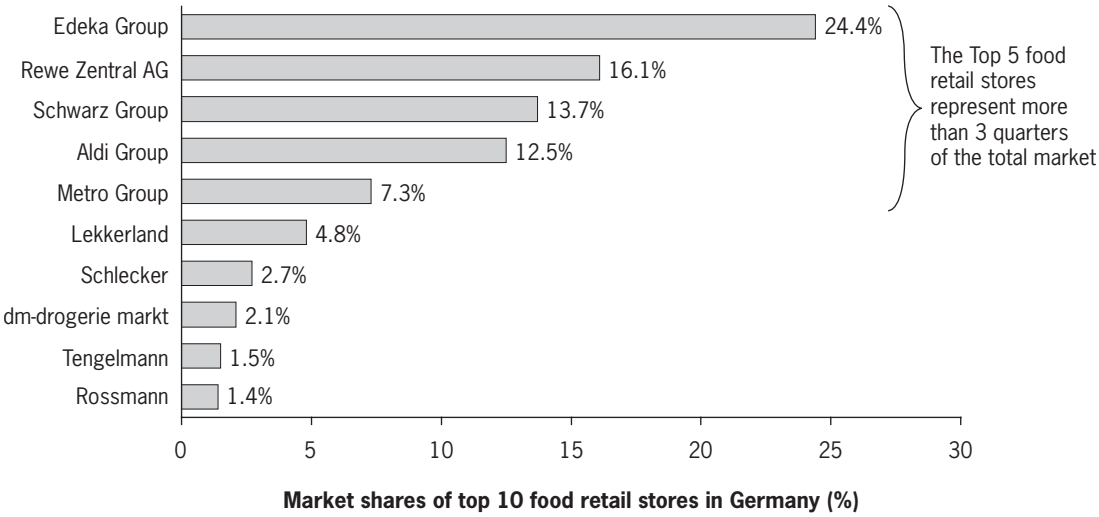
Source: German Bureau of Statistics and Bundesvereinigung der Deutschen Ernährungsindustrie e.V. 2010

Exhibit 12 German food imports and exports 1999–2009



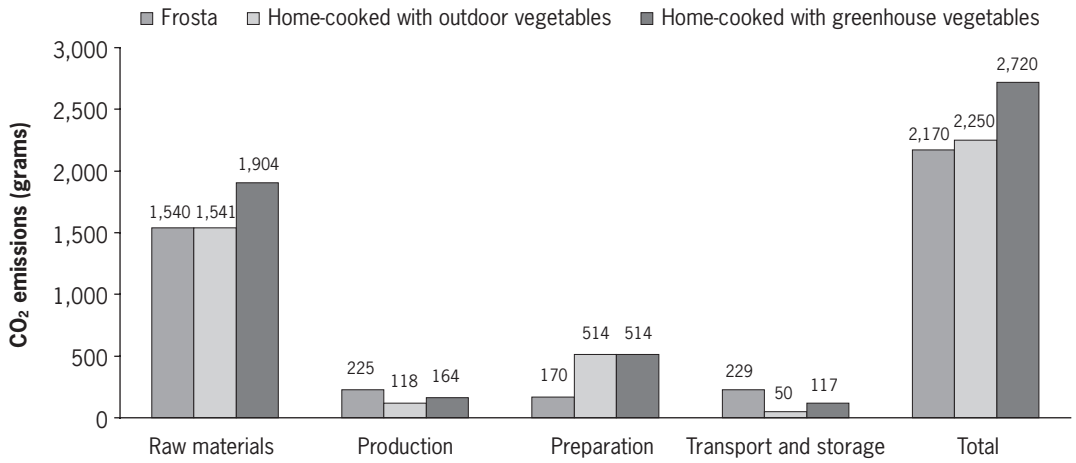
Source: German Bureau of Statistics and Bundesvereinigung der Deutschen Ernährungsindustrie e.V. 2010

Exhibit 13 Top 10 food retailers in Germany 2009



Source: TradeDimensions, AMI in Bundesvereinigung der Deutschen Ernährungsindustrie e.V.

Exhibit 14 CO_2 footprint of a pot of meat stew



CO_2 emissions refer to a pot of meat stew for two persons (500 g)

Source: Frosta materials 2010

Exhibit 15 Frosta frozen food Bami Goreng dish

Source: Frosta materials

Exhibit 16 Bami Goreng dish: Frosta Reinheitsgebot promise fulfilled

These are all the contents – nothing more
- Ribbon macaroni prepared and 33% pre-cooked at Frosta facilities
- Soy sauce brewed in the traditional Japanese method; no addition of flavor enhancers or yeast extracts
- Garlic pressed from fresh garlic cloves
- ...

- no artificial colorings or flavorings
- no addition of flavor enhancers
- no emulsifiers or stabilizers
- no chemically modified starches or industrially produced trans fats

Can you resist it this long?
Store at -18°C. Best before the end of:

Contact Frosta by phone, email, or post a comment on www.Frostablog.de/

CO_2 Footprint
Find more information at www.Frosta.de

Source: Frosta materials