# Support for Farmers' Cooperatives

Case Study Report

## Internationalisation of Sugar Cooperatives: Cosun, Südzucker/ Agrana, Tereos

Maryline Filippi

Rainer Kühl

Bert Smit

European Commission

The 2011-2012 project „Support for Farmers' Cooperatives (SFC)" has been commissioned and funded by the European Commission, DG Agriculture and Rural Development.

Contract Number: 30-CE-0395921/00-42.

The SFC project is managed by Wageningen UR's Agricultural Economics Research Institute LEI and Wageningen University. Project managers: Krijn J. Poppe and Jos Bijman.

Other members of the consortium are:

- Pellervo Economic Research PTT, Finland: Perttu Pyykkönen
- University of Helsinki, Finland: Petri Ollila
- Agricultural Economics Research Institute, Greece: Constantine Iliopoulos
- Justus Liebig University Giessen, Germany: Rainer Kühl
- Humboldt University Berlin, Germany: Konrad Hagedorn, Markus Hanisch and Renate Judis
- HIVA Katholieke Universiteit Leuven, Belgium: Caroline Gijselinckx
- Rotterdam School of Management, Erasmus University, The Netherlands: George Hendrikse and Tony Hak

How to cite this report:

Filippi, M., R. Kühl, B. Smit (2012). Support for Farmers' Cooperatives; Case Study Report; Internationalisation of Sugar Cooperatives: Cosun, Südzucker/Agrana, Tereos. Wageningen: Wageningen UR.

Support for Farmers' Cooperatives

*Case Study Report*

# Internationalisation of Sugar Cooperatives: Cosun, Südzucker/Agrana, Tereos

Maryline Filippi

*Enita de Bordeaux, France*

Rainer Kühl

*Giessen University, Germany*

Bert Smit

*LEI Wageningen UR, The Netherlands*

November 2012

Corresponding author:

Rainer Kühl
University of Giessen
Institut für Betriebslehre der Agrar- und Ernährungswirtschaft
Senckenbergstr. 3
35390 Gießen
Germany
E-mail: Rainer.Kuehl@agrar.uni-giessen.de

**Preface and acknowledgements**

In order to foster the competitiveness of the food supply chain, the European Commission is committed to promote and facilitate the restructuring and consolidation of the agricultural sector by encouraging the creation of voluntary agricultural producer organisations. To support the policy making process DG Agriculture and Rural Development has launched a large study, "Support for Farmers' Cooperatives (SFC)", in order to provide insights on successful cooperatives and producer organisations as well as on effective support measures for these organisations. These insights can be used by farmers themselves, in setting up and strengthening their collective organisation, by the European Commission, and by national and regional authorities in their effort to encourage and support the creation of agricultural producer organisations in the EU.

Within the framework of the SFC project, this case study report on the differences in the internationalisation of the four sugar cooperatives Cosun (NL), Südzucker/Agrana (DE/AT), Tereos (FR) has been written.

Data collection for this report has been done in the spring of 2012.

In addition to this report, the SFC project has delivered 32 other case study reports, 27 country reports, 8 sector reports, 6 EU synthesis and comparative analysis reports, a report on cluster analysis, a report on the development of agricultural cooperatives in other OECD countries, and a final report.

The authors would like to thank the directors and managers of the assigned cooperatives and other stakeholders for their willingness to collaborate in this project and to share information on structure and strategy of their cooperatives..

# Table of contents

## List of abbreviations

| | |
|---|---|
| ACP | African, Caribbean, and Pacific Group of States |
| CEO | Chief Executive Officer |
| CFO | Chief Financial Officer |
| ERP | European Recovery Programme |
| E.U. | European Union |
| GmbH | Limited liability company |
| IOF | Investor owned firm |
| KG | Limited commercial partnership |
| LDCs | Least development countries |
| M&A | Merger and acquisition |
| M-Dax | Mid-Cap-Dax |
| SSC | Silesian sugar mills (SSC) |
| SZ | Südzucker AG |
| SZVG | Süddeutsche Zuckerrüben-Verwertungsgenossenschaft e.G. (South German sugar processing cooperative) |
| VSZ | Union of South German sugar beet producers |

# 1. Introduction

## 1.1 Objective and research questions

The imbalances in bargaining power between the contracting parties in the food supply chain have drawn much attention, also from policy makers. The European Commission is committed to facilitate the restructuring of the sector by encouraging the creation of voluntary agricultural producer organisations. DG Agriculture and Rural Development has launched a large study, "Support for Farmers' Cooperatives", that will provide the background knowledge that will help farmers organise themselves in cooperatives as a tool to consolidate their market orientation and so generate a solid market income**.** In this analysis, our goal has been to develop an in-depth understanding of the nature of the internationalisation of cooperative sugar firms. We develop a comprehensive framework to illustrate particular aspects of market-driven strategies of sugar cooperatives. With this study we want to identify the similarities and differences in the companies` activities in the process of internationalisation as well as the relationships between the cooperatives´ development and their position in the supply chains. We also want to identify the main policy measures and how they affect the current structure and the dynamic development and performance of the cooperatives. A final objective will be the identification of the relationship between the internal governance and the organisational structure of the cooperatives and the process of internationalisation.

In this case study, the following research questions have been guiding the research. First, what are the main activities on which the cooperatives rely their success on? Second, to what extend can the success of the cooperatives be attributed to the internal governance of the firm and what is the role of the producer groups? Third, what are the differences and similarities in the internal governance, the strategies and the culture of the cooperatives. Fourth, what were the main reasons for starting their internationalisation strategies? Fifth, what have been the impacts of the policy regulations on the internationalisation process in the sugar sector?

## 1.2 Analytical framework

There are at least three main factors that determine the success of cooperatives in current food chains. These factors relate to (a) position in the food supply chain, (b) internal governance, and (c) the institutional environment. The position of the cooperative in the food supply chain refers to the competitiveness of the cooperative vis-à-vis its customers, such as processors, wholesalers and retailers. The internal governance refers to its decision-making processes, the role of the different governing bodies, and the allocation of control rights to the management (and the agency problems that goes with delegation of decision rights). The institutional environment refers to the social, cultural, political and legal context in which the cooperative is operating, and which may have a supporting or constraining effect on the performance of the cooperative. Those three factors constitute the three building blocks of the analytical framework applied in this study (Figure 1).

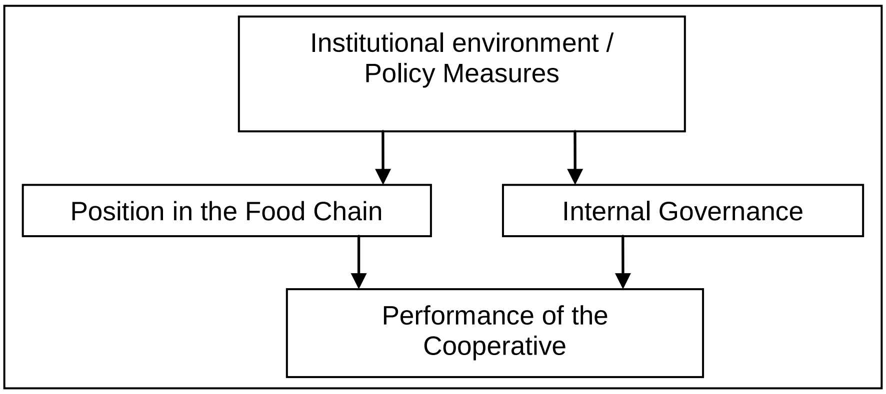


Figure 1. The core concepts of the study and their interrelatedness

## 1.3 Method of data collection

The case study is based on multiple data sources. First of all, secondary data was used such as academic literature, country reports of the Support for Farmers' Cooperatives project, popular press and electronic media, various archives and other sources of information.

Additional information were collected through personal interviews with various co-operative stakeholders and cooperative members. For this particular study, board members and managers of the four cooperatives Cosun, Südzucker/Agrana, and Tereos were interviewed, as well as other shareholders such as Süddeutsche Zuckerrüben-Verwertungsgenossenschaft. Standard techniques and approaches used in case study research were used in order to maximise reliability and avoid biases.

## 1.4 Internationalisation of sugar cooperatives

The sugar industry is one of the agribusiness sectors that relatively early realised that growth potential is exhausted in economies of scale and that there is only growth potential in developing economies of scope (diversification) or in the extension of geographical boundaries. All sugar firms subject of this case study are characterised by a widespread international orientation and by former heavy investments in the acquisition of foreign sugar producing and related companies. The past structural developments within the sugar industry (standardised products, use of efficient production and processing technologies) and the CMO regime as well as the national anti-trust policies forced the companies to a reorientation of their business activities towards the development of international market access.

## 1.5 Structure of the report

Chapters 2, 3, and 4 of this report are aimed to provide a full picture of the sugar market developments as well a description of the four cooperatives under study. The sectors and cooperatives will then be compared to each other in chapter 5. In addition, this chapter also describes the internationalisation strategies the four cooperatives have established. Finally, in chapter 6 conclusions are drawn on the effect of the European, national and regional policy measures on the development of the internationalisation process.

# 2. The first case: Cosun (NL)[1]

## 2.1 Facts and figures on sector and cooperative

In 2010, in the Netherlands, 8,785 farmers grew sugar beets on a total acreage of 70,584 hectares. 5,724 of these farmers were specialised arable farmers, growing 50,730 hectares of sugar beet (Smit et al., 2011). In that year, the Dutch sugar beet growers produced on average 75 tonnes of beet per hectar or 12.6 tonnes of sugar per hectar. The average acreage per farm was 8.0 hectares, but on specialised arable farms 8.9 hectares. The total harvest was 5.6 Mio. tonnes of sugar beets. These beets were processed in two sugar factories which is an average daily production of 21,000 tonnes of sugar beet (J.W. van Roessel, Cosun, pers. comm., 2012) or about 4,000 tonnes of sugar and an average total volume of 450,000 tonnes of sugar per factory. As a result a total volume of about 0.9 million tonnes of white sugar was produced in 2010 (including surplus sugar; the sugar quota for the Netherlands allowed for about 0.8 million tonnes of sugar production).

The Dutch sector for sugar processing is characterised by a monopoly on the processing side[2]. In the Netherlands, the sector consists of only one company, Suiker Unie. Suiker Unie is part of Koninklijke Coöperatie Cosun U.A. (Royal Cosun) and is the fifth sugar producer in Europe with an annual turnover of about 1,8 billion Euros (2010/2011, De Bont and Smit, 2011) and 3,500 employees located in the southern and northern regions of The Netherlands (See text box) [3].

Royal Cosun is a Dutch agro-industrial group firmly rooted in the primary sector. The Cosun businesses – Suiker Unie, Aviko, Sensus, SVZ and Duynie – produce food ingredients and products that make their way to the food industry, foodservice sector and retail channels. In addition, the group is increasingly focusing on components for non-food applications.
Cosun's ambition is to get the most out of its raw materials: this is good for the environment and profitability and meets society's demand for responsible products and production methods. The Cosun businesses also supply products to the animal feed sector and residual products are used to produce biogas.
Royal Cosun was established more than a 110 years ago by Dutch sugar beet growers who united themselves in a cooperative. Today, the cooperative has nearly 10,000 members/shareholders and has grown into a business with over 3,500 jobs in fte and group turnover of about € 1.8 billion.

Since the year 2009, the sugar factory in Anklam in the north-eastern region of Germany has become a subsidiary of the Cosun U.A. The merger of Danisco and Nordzucker in that year led to the EC-driven obligation to sell this plant to a 'third' party, in this case Cosun. In Anklam, Royal Cosun employs about 135 employees and processed in 2008 ca. 1.1 million tonnes of sugar beets with a turnover of 120 million Euros. The production share of Cosun (Suiker Unie Anklam GmbH) in Germany is 10-20%. The beets for Anklam were delivered by 450 sugar beet growers, who produced in 2011 1.4 million tonnes sugar beet or 235,000 tonnes sugar on an acreage of

---

[1] Based on different sources as listed in the reference list and on interviews with four key-stakeholders within the cooperative Royal Cosun: Robert Smith (CEO), Jan Willem van Roessel (secretary of the Board), Harm Eisse Clevering (former chairman of the Board) and Gerard van Tilburg (currently vice-chairman of the Board).

[2] Part of the beets in the South-eastern region of the country, i.e. on large distance from the Dutch plants, are processed by German plants for Cosun, on a contractor's basis. But also for this region, Cosun is in control of the sugar beet processing in the Netherlands. On the market side, however, Cosun is only one of the players in the Netherlands. Other European sugar companies and cooperatives, and a number of developing and other countries , e.g. Brasil, can sell sugar and sugar-based products in the Netherlands as well, in a number of cases even with low import tariffs (Smit and De Bont, 2011).

[3] Source: Website Cosun, 2012 (www.cosun.com). More information about the history of cooperative and private sugar companies in the Netherlands from 1899 onwards and the merging processes in both the cooperative and the private subsectors is given by De Bont (2012). Finally, in 2007, IOF CSM Suiker BV and Suiker Unie merged into one sugar company that is owned by cooperative Royal Cosun and after a (shortened) transition period, all sugar beet growers involved are now members with ' full and equal rights'.

21,000 hectares. The average acreage per farm was 47 hectares. The quota of the Anklam factory allows for a production of 112,000 tonnes sugar, being 4% of the total German quotas („Besucherinformation“, Suiker Unie GmbH, Anklam, 09/2011). A part of the thick juice is used for producing ethanol.

Bargaining Power of Sugar Beet Suppliers

*The Netherlands*

Royal Cosun is a cooperative with approximately 10,000 members (arable farmers, beet growers). The cooperative consists of nearly 8,000 direct members (category A). 1,800 Beet growers are members (category B) of (originally) two regional cooperatives, CSV and COVAS, merged in CSV COVAS (2009). These regional cooperatives are members (category C) themselves of Royal Cosun. Royal Cosun is one of the largest (at place 4) on the list of cooperatives in the Netherlands (Bijman at al., 2011).

The farmers, members of Cosun, grow sugar beet as well as other crops and some members also keep livestock, e.g. dairy cows or pigs. They supply their beets to the plants on the basis of delivery rights (that can be freely traded) and the number of shares they own in the cooperative. These shares cannot be freely traded. Additionally, Cosun has set restrictions on the geographical characteristics of the new owner of the delivery rights compared to the original owner. They apply a system aiming at shortening (or at least stabilising) the average distance between sugar beet growers and sugar factories after every transaction.

The members have direct influence on the policy and strategy of the cooperative through elected representatives who are the members of the Members’ Council. The Council elects the members of the Board and the Supervisory Board (De Bont, 2012). This is represented in the following text box. Close connections between the ever-increasing cooperatives and their members are essential to keep the increasingly keen and assertive members ‘on board’.

Governance structure of Royal Cosun

Members 100% owners
|
Districts
|
Members’ Council
|
Supervisory Board ----- Board
|

The cooperative CSV COVAS, a C-member of Cosun (a 2009 merger of CSV and COVAS ) has no processing capacity but organises the harvest of the sugar beets of 1,800 growers (12,000 ha) in the south east of the country and sells the beets to Cosun. The cooperative is also active in potatoes (selling to Cosun daughter Aviko), malting barley, ginseng and chicory (for processing by Cosun daughter Sensus).

The sugar beet price with standard quality is the same for 'direct' Cosun (A-) members as for CSV COVAS (B-) members. The board of CSV COVAS negotiates with Cosun about the logistic organisation of sugar beet delivery of CSV COVAS members. Besides, CSV COVAS membership gives their members some additional advantages from their additional activities. The advantages or disadvantages of this construction for Cosun are relatively small.

The original cooperatives CSV and COVAS were (and after the merger still are) active in the southern regions of the Netherlands. These cooperatives were originally established to regulate sugar beet production and delivery in these regions. In the past, there were many small mixed farms in these regions, producing sugar beet now and then (not every year). CSV and COVAS had the task to organise and bundle the sugar beet delivery to Cosun factories and take care of a more or less constant supply from their respective regions. Today, the sugar beet growers in the South are, like in the rest of the Netherlands, modern, large scale and specialised arable farmers, with no inclination to produce sugar beet only now and then.

*Germany*

The sugar beet growers in Anklam are not members of Cosun. The group of Anklam growers is relatively small in number and organised in the Anklamer Anbauerverband für Zuckerrüben, which carries out the contract negotiations with the management team of Suiker Unie GmbH Anklam.

## 2.2 Strategy and structure of Cosun

In the Dutch sugar sector, there used to be two companies processing sugar beets: CSM, a stock market listed IOF, and Cosun, the sugar beet growers' cooperative (formed in a consolidation process in the late 1960s). After earlier (even hostile) merger and acquisition processes in the 1990s, Cosun acquired all of the sugar business of CSM in 2007. The former suppliers of CSM became members of Cosun (under the requirement of paying an entry fee). The main reason for CSM, an international food industry concern with is origins in sugar cane refinery, to withdraw from the sugar industry was the lack of growth potential in the sugar industry.

Until the merger of CSM with Suiker Unie, Suiker Unie acted as a guard for the whole Dutch sugar beet sector. CSM always tended to tune the sugar beet price paid to her farmers contracted to the price paid by Suiker Unie. Thus, Suiker Unie set more or less the price for all sugar beet farmers in the Netherlands and protected CSM-growers from 'bottom-prices' due to stock market driven strategies by CSM.

The 2006 policy reform was not only an incentive to merge the sugar division of CSM into Cosun, but also to restructure the production facilities. One of Cosun's strengths is the very cost efficient production: the number of factories was reduced to two, each with an annual capacity of 500.000 tonnes of sugar (the European average is 150.000 tonnes). That is equivalent to 20.000 – 22.000 tonnes of beet on an average production day.

Cosun is a cooperative owned by only sugar beet growers, most of them also growing potatoes, cereals and some field vegetables. Thus, the cooperative is rather homogeneous on the membership side; at the same time, they are a diversified food company on the market side. Cosun is a holding company with subsidiaries that produce a broad range of products, all from agricultural crops. Two business units produce branded consumer products: Suiker Unie produces crystal sugar and syrups (e.g. under the Van Gilse brand), while Aviko produces potato products (under Aviko brand). Most products are produced for food service and the food industry, such as sugar, potato specialties, fruit and vegetables preservatives, chicory-based inulin, and, in the past, fine bakery ingredients (Unifine) and alcohol for human purposes and bio-ethanol (Nedalco). Part of the sugar beets and chicory (and Aviko's potatoes) processed is purchased from the regional cooperative CSV COVAS. In recent years, Cosun re-defined their strategy, focusing on sugar production and large-scaled processing and adding value to vegetable raw and residual materials. As a consequence, Cosun sold Unifine, having activities too far down in the chain, and Nedalco, currently only processing cereal by-products and thus not connected to sugar production anymore. The remaining subsidiaries have similar production processes and all benefit from expertise and innovations exchanged (R. Smith, Boerderij Vandaag, 26 April 2012). Concerning the sugar activities themselves, Cosun opts for a) an extended processing campaign; b) producing bio-energy from waste material; c) building thick-juice tanks for extended processing and storage capacity; d) increasing added value through increased refinery.

The business model of Cosun focuses on the production of sugar from sugar beets for the owners of the cooperative. The top priority is that members/sugar beet growers involved benefit from the value added. Profits from other subsidiaries result into a (hopefully) higher price of sugar beets delivered than possible from the sugar production sec, giving additional added value to the members. The growers of crops for the other business units have a purely rational contract with the respective units. This business model keeps the system of attribution of the value added through sugar production versus other activities simple. Aviko-growers could have other interests than cichory-growers, whereas some sugar beet growers also grow Aviko-potatoes and/or Sensus-cichory. This clear and focused system had led to little discussion between different subgroups among Cosun-members with different crop/product portfolios. Aviko- and Sensus-growers receive a contractual price for their products. Cosun sugar beet growers do not have a price guarantee, but deliver their beets trusting that their own cooperative will perform as efficiently as possible in both the sugar as the other units. Sofar, they have always received a better price than strictly justified on the basis of the sugar production unit [4]. The profits from the other units allowed a 'plus' on the sugar beet price sec. The Cosun members are the shareholders of the cooperative and bear the risks involved. Thus, it is quite understandable and defendable that they receive a 'plus' in the sugar beet price if possible. Aviko- and Sensus-growers are not shareholders as such, but they do not bear any risk other than in the contracts included. The possible 'plus' in the sugar beet price is not guaranteed, since losses or investments in other business units can negatively affect the value added from these units or even imply a 'minus'.

Going international, Cosun applied the same business model for the sugar beet growers in Anklam, Germany, considering them as an additional business unit under the Cosun umbrella. That implies a purely contractual relationship between Cosun and the Anklam growers. This business model is different from e.g. AVEBE, who invited their German starch potato growers to become members of the potato starch cooperative. Such a model creates the need to organise bilingual member meetings, which complicates the communication and decision making by the board. Additional problems arose through differences in CAP-payment systems between Germany and the Netherlands and between German growers growing potatoes in the Netherlands and Dutch growers growing. However, Cosun also invests in Anklam in a bio-energy installation and gives a 'plus' on the sugar beet price paid to the farmers involved. Such investments and measures keep the sugar beet price differences between Anklam and Südzucker growers limited and create a certain goodwill with them towards Suiker Unie GmbH.

## 2.3 Relevant support measures affecting structure and strategy

Summarising the information in the two previous sections, cooperatives can contribute to a stable and continuous production, processing, distribution and marketing of agri & food products and services, to a (more) stable income of farmers and other industries in the

[4] The Cosun members have never received a minus on their beet price because of the activities outside of sugar. Cosun publishes no data on the profit of the different companies or on the sugar activities versus the other activities.

countryside and to a sound rural economy and social welfare. Cooperatives act as a stabilising guard in markets with stock exchange oriented IOF's (the Rheinland model versus the Anglo-Saxon approach). To that end, cooperatives can be supported to develop in an economic sound way, taking into account developments in e.g. technology, competitive strength in the market, consumer preferences and policy (e.g. WTO and CAP). Facing trends of globalisation, liberalisation, scale jumps of market parties and farms, increased competition and an increased demand for sustainability, cooperatives will seek, like IOF's, cost price reduction and/or increase of added value, including improved utilisation of all vegetable parts into products and/or energy.

For the European Commission, the following recommendations have been derived from this analysis and the interviews held:

- Facilitate good business modelling with strong focus on one product/branch and simple profit sharing principles;
- Stimulate optimisation throughout the full production chain;
- Keep away from strong cartel regulations;
- In general, keep regulations simple, constant and feasible and take care of a level playing field between member states, e.g. in tax regulations;
- Allow foreign growers to become contractual deliverers and do not urge them to become members 'in full rights'; in general, give cooperatives freedom to make their own branch and cooperative specific contracts;
- Facilitate a good power balance between boards of members on one hand and management teams of cooperatives on the other hand, including good education and empowerment of board members/farmers with sufficient diversity in expertise from farmers and external experts involved in the supervisory board;
- Stimulate increase of sustainability as well as cost price reduction and increase added value' in agro-chains; in general, stimulate innovation in the agro-sector, triggering a member, market and consumer oriented way of client-friendly and efficient production and governance, including a strategic vision on future developments to be expected. Due to a certain social attitude of cooperative members and employees, there is pitfall for cooperatives to sub-optimally produce and innovate; this could endanger the competitive power of a cooperative, both in the market as in the bond with members/primary suppliers.

# 3. The second case: Südzucker / Agrana (DE/AT)

## 3.1 Facts and figures on sector and cooperatives

According to a recent analysis of the German antitrust authority the German sugar market is characterised by a non-competitive oligopoly (Bundeskartellamt, 2009). Four companies sharing the market with two leading companies, Südzucker AG (turnover 6.2 billion Euros (2010/2011) and 18,000 employees) and Nordzucker AG (turnover of 1.8 billion Euros and 4,300 employees) counting for 50-60% of sugar supplied into the market (see Exhibits 1 and 2), followed by family firm Pfeifer & Langen KG (turnover of about 1.2 billion Euros (2010) and 2,300 employees) with 20-30%, and Dutch based Suiker Unie (5-10%), a subsidiary of the Dutch sugar company Koninklijke Coöperatie Cosun U.A. (total turnover of 1,8 billion Euros (2011) and 3,500 employees). In Austria, Agrana - since 1998 a subsidiary of Südzucker AG – is the sole player which employs 8,000 personnel and generated revenues in 2010/2011 of about 2.166 billion Euros (34.5% fruit, 30.1% starch, 35.4% sugar). See Exhibit 3 for the geographical distribution of the production sites of these companies and the location of sugar production within Germany.

In Germany, on the industry´s upstream supply side about 32,542 farmers (2010/11) grew sugar beets on a total acreage of nearly 345,000 hectares. This acreage counts for a harvest of 22 million tonnes of sugar beets that are processed in 20 sugar factories. This accounts for an average daily production of 230,000 tonnes of sugar and an average total volume of 11,478 tonnes of sugar per factory and day (see Exhibit 1). As a result a total volume of about 3.4 million tonnes of white sugar was produced. In Austria, over the last years about 7,800 sugar beet growers produced an average volume of sugar of about 351 million tonnes white sugar (basis is sugar quota) on an acreage of nearly 45,000 hectares. The average acreage of a single farm is 4.8 hectares.

Sugar beet suppliers today – although large in numbers - have achieved a powerful position in bargaining prices and delivery conditions (SZVG, 2012; Menz, 2012). Historically, farmers unions have successfully organised their interests in different regional bargaining groups. Most of these groups are in the legal form of an association. Today, all sugar beet farmers in Germany and in Austria are organised in these unions. Südzucker AG negotiates with the Union of the southern German sugar beet producers (regional association; VSZ: Verband Süddeutscher Zuckerrübenanbauer e.V. in Ochsenfurt) which has about 19,000 farmer members (2011), harvesting an acreage of ca. 150,000 hectares (average acreage of about 6.8 hectares per farm). The two northern sugar companies Nordzucker AG in Brunswick and Suiker Unie GmbH of COSUN in Anklam bargain with the Dachverband Norddeutscher Zuckerrübenanbauer e. V. and Anklamer Anbauerverband für Zuckerrüben e.V. that represent about 8,500 sugar beet producers in the northern part of Germany with a total acreage of about 145,000 hectares. The family owned sugar factory of Pfeifer & Langen KG (Cologne) is negotiating with the Rheinischer Rübenbauer-Verband e.V. (Bonn), which represents 4,500 farmers producing sugar beets on an acreage of 51,000 hectares (average acreage of 11.4 hectares per farm) in the western regions of West-Germany. In Austria the same organisational structure of the farmers has been evolved over time. Today, four producer organisations exist with the sugar beet association for Lower Austria and Vienna as the largest – representing 75 % of the Austrian national sugar beet quota (equals 34,624 hectares acreage and 5,969 farmers). Other unions could be found in Upper Austria (14 % of the quota with 5,838 hectares acreage and 1,254 farmers); Sugar beet association of Burgenland (11 % of the national quota with 5,838 hectares acreage and 517 farmers); Sugar beet cooperative of Styria (0.6 % of the quota with 253 hectares acreage and 55 farmers). These four unions are centrally organised in a central union called Vereinigung der Österreichischen Rübenanbauerorganisationen (Source: http://www.voer.at/uebersicht/entwicklung, 28.03.2012)

On its downstream side the sugar industry is supplying two separate markets. Individual customers in these markets – industrial buyers like the food and beverage industry and the food retail sector for household sugar – have the ability to exert considerable pressure on existing sugar firms to negotiate purchase prices that extract profits from sellers. Household sugar prices in general are higher than manufacturers` prices due to higher product quality (manufacturers` sugar is a bulk product in coarse quality, while household sugar is offered in different package sizes and different quality levels of refinery grades). The relation of household and manufacturers` sugar consumption is between 30 / 70 % (Bundeskartellamt, 2006, 22) and 14 / 86 % (see Exhibit 4). Due to its standardised character sugar is supplied as an undifferentiated product. Private sugar labels or manufacturing labelling is completely uncommon in the food and beverage industry sector. There are also no barriers for buyers to change suppliers in terms of incurred switching costs. This even more applies for the retail sector: more than 40 % of the household sugar is supplied as retail brands. Both, buyers of household and industry sugar exploit their option of a "double-sourcing" strategy by contracting with at least two independent suppliers simultaneously. The homogeneity of sugar is accompanied by a relatively high price transparency that enables domestic and foreign competitors (e.g. Tereos and Cosun) to react to changes in trade conditions immediately.

The German sugar sector does not have many experiences with foreign entrants. Except for the Danish sugar company Danisco which acquired the former GDR sugar factory in Anklam in the year 1991 no new entrant has appeared on the German market. After the merger of Nordzucker and Danisco in the year 2009 this sugar factory in the north-eastern region of Germany has become a subsidiary of the Cosun U.A. by an EU- and German antitrust condition to sell this plant to a 'third' party. It is more common that German sugar companies enter foreign markets. In the year 2008 Nordzucker announced its takeover of Danisco.

The situation is somewhat different in Austria. Several years ago, in 1989, Südzucker acquired shares of Agrana in the form of a stock swap (10 % Agrana shares for 2.5 % Südzucker shares). That was the beginning of Südzucker`s market activities in Austria with the focus to use Agrana´s traditional business relationships to Middle and South East European countries for further market expansion. In the year 1993 Südzucker increased its stake at Agrana up to 50 % while at the same time Agrana increased its Südzucker share up to 10 %. Additional to M&A activities other market entrants have found their way to the German market. Exhibit 1 indicates that there are a larger number of other competitors who supply the German market with sugar imports. With a market share of about one third of the household market and one fifth of the food industry market these competitors are assumed to have some disciplinary influence on internal rivalry in the sugar market. For at least two reasons it is not to expect that foreign sugar deliveries will increase substantially. Germany`s sugar market is a saturated market and every additional quantity supplied will decrease the price level and immediately also the market attractiveness for foreign competitors and secondly, spatial vicinity of German`s sugar producers to their customers favours their deliveries due to relatively lower transportation costs.

Beet sugar substitutes, like alternative sweeteners with favourable price-value characteristics are to be seen as close substitutes. There have been some expectations that they will pose a threat on stealing business and intensifying rivalry. Südzucker has reacted to this expected shift in sugar demand by investing into the production of these substitutes. Beneo (a subsidiary of Südzucker) is involved in the production of alternative sweeteners. But, the threat of substitutes is low due to its lower performance characteristics compared with beet sugar and the fact that beet sugar cannot be replaced in all applications. On the other hand Südzucker also expects that diversification in sugar related product lines, like bio-ethanol or starch production will function as complements to boost the demand for additional sugar.

## 3.2 Strategy and structure of Südzucker / Agrana

Over the last thirty years Südzucker has evolved to the most important sugar producer in Europe with wider international activities in China, South America and Africa. Besides its original sugar production business the company has also moved into sugar related and non-related food and non-food industries. Südzucker`s turnover developed from Euros 4.6 billion in the fiscal year 2000 up to currently Euros 6.2 billion (+ 35 %). Interesting to note is that from today´s turnover about 70 % (4,370 million Euros) is generated by their international business divisions. Compared to the year 2000/01 2,563 million Euros or 55 % of the revenues were realised from third-party businesses. For nearly 90 years, Südzucker had devoted itself to finding better ways to sustain sugar production in Germany and to develop opportunities for geographic and product diversification. War, industrial advances and innovation opportunities, strong and far-sighted producer organisations and political changes had all played a role in bringing the company to where it is today. In order to understand their strategic concepts and strategic moves it is important to understand the development of the corporate structure and the historic path of Südzucker.

The Südzucker group grows through horizontal and vertical diversification and integration. Currently, it is divided into four segments or business units (for the distribution of the revenues onto the units see Exhibit 12). The most important segment is the “sugar segment”, whose revenues rose to Euros 3,279 million, which represents 53 % of consolidated group revenues. The segment “**CropEnergies”** (7 %) is primarily involved with the production of bio-ethanol for the fuel sector basically made from sugar beets.

Another segment contains “**special products**” (26 %), such as functional food, portion packages, convenience foods, snacks and starch. This segment includes the activities of BENEO, Freiberger (large frozen pizza producer), PortionPack Europe as well as AGRANA's starch and bio-ethanol business. BENEO enlarged its production capacities for specialty ingredients in the last years and produces food and beverage ingredients from wheat, sugar beet, rice and chicory roots in Chile, Belgium, Italy and Germany. The development of these divisions is the result of horizontal diversification activities. A vertical diversification and integration strategy becomes obvious in the acquisition of Freiberger and PortionPack, where raw material is processed to convenience products, such as frozen pizza or portioned marmalade. Together with the recent acquisition of a British sugar trading company in 2011, Südzucker demonstrates the efforts of the company to become active in upstream stages of the value chain.

With the development of the **“fruit division”** (14 %) in 2003 achieved through an increase of its financial interests in AGRANA, Südzucker has created another pillar with the focus to become more independent of the sugar production. AGRANA indirectly owns all shares of the fruit segment via AGRANA J&F Holding GmbH. Coordination and operational management are carried out through two divisional holdings in France and Austria. The fruit segment produces fruit preparations and fruit juice concentrates in 37 production sites in all five continents with main production in Germany, France, and Belgium. This sector has been established as a kind of portfolio strategy anticipating the EU Sugar Reform and its likely changes. The integration of this segment is another step towards extending the vertical boundaries of the company into downstream stages of the value chain. The company describes itself as a ”global market leader in fruit preparations and leading producer of fruit juice concentrates in Europe, whose task it is to refine agricultural raw materials to high-value intermediate products for the food industry”, particular for the drinks industry, dairy, pastries and ice-cream industry (see website Südzucker).

*Südzucker´s history and strategy*

Since the year 1994 until today, Südzucker AG has been listed as a share holding company at the stock exchange (M-Dax). It is one of Germany´s largest agro-food companies specialised in beet sugar production for food and non-food usage, consumer food and food-ingredient production. With its production sites across Europe and the rest of the world, it reaches a turnover of 6.2 billion Euros.

It took a long time to evolve to the company it is today. Originally founded as a small private sugar factory in Baden-Wuerttemberg in 1837, Südzucker AG was established 90 years later in the year 1926 by a merger of five sugar companies.

The period between 1926 and the end of World War II (WWII) was characterised by consolidation and solving problems arising from sugar overproduction and the restructuring after the worldwide economic crisis. Up to the year of 1950, agricultural cooperatives were without any importance in the sugar industry in Germany. Except for three sugar factories that were established as cooperatives in the years 1930 and 1931 and that went bankrupt several years later, cooperatives and farmer producer organisations did not play a significant role in the sugar sector. Despite the fact that they had pooled their interests in several regional producer unions, their bargaining power in price and quantity negotiations was of minor influence. Sugar factories had the common agreement of a demarcation contract that constrained sugar beet producers to deliver within well delineated demarcation regions and to accept the offered prices by each sugar factory.

In these years after WWII, a growing sugar consumption and demand was expected, resulting into a strong expansion of sugar beet production and processing which encouraged a former founded central association of sugar beet farmers to invest into an own sugar factory. To realise this idea, in 1950 the "Süddeutsche Zuckerrüben-Verwertungsgenossenschaft e.G." (SZVG; South German sugar processing cooperative) was founded. They developed the plan to build a new factory in the direct vicinity of a sugar drying factory of Südzucker AG. Südzucker AG intended to build an own factory in that region without the participation of the farmer cooperative. It was clear to Südzucker´s management that the cooperative was not able to collect the required investment capital and in the end Südzucker alone would be able to build (Pohl, 2001, p. 245). At that time the National German and the Federal Bavarian Government and the Allied Forces supported that idea of additional processing capacity and anticipated on an important amount of subsidies from the European Recovery Programme (ERP). One of the requirements for the financial support to flow was the establishment of a sugar factory in the ownership of the sugar beet producers. Südzucker AG was definitely not interested in additional sugar production capacities and the threat of an increase in post-entry competition. After very intense and controversial discussions between the SZVG, Südzucker AG and the Ministry of Agriculture during the years 1950/1951 the participants negotiated an eight-point programme that inter alia determined the investment into the establishment of a new sugar factory (Franken Zucker GmbH (limited liability company) at the location of Ochsenfurt. The farmer cooperative SZVG received with 51 % of the capital the majority of the company while Südzucker AG with its 49 % waived the claim to build their own factory. August 24th, 1951, the date of foundation is also the milestone of the beginning of the participation of a farmers` cooperative at Südzucker AG. It is to be seen as the beginning of a fundamental change of Südzucker´s governance structure that by all means became completely effective only 35 years later.

From 1951 until 1988, Südzucker`s activities were characterised by the construction of three new sugar factories in its market area. Other production sites were modernised while also heavy investments were undertaken into the development of sugar substitutes, like Palatinite. In the mid-80s Südzucker AG became German´s largest sugar company with a turnover of more than 800 million EUR. This period was also characterised by SZVG´s activities to get more influence in Franken Zucker GmbH. In the end SZVG could increase its joint stock in Franken Zucker GmbH up to 75 %. SZVG also could increase its share capital in Südzucker AG from 6.6 % up to 49.9 % by acquisitions of free float shares. In 1981 SZVG was very close to gain the majority of Südzucker AG. The German antitrust commission intervened with the argument that SZVG was the majority shareholder of Frankenzucker GmbH as well and together with its majority on

Südzucker AG there would be a likelihood of exploiting a market dominating position. As a consequence, in 1982, SZVG stopped the acquisition of additional stocks.

To prevent SZVG from becoming the major stakeholder of Südzucker AG, a new company (GeB; Gesellschaft für ernährungswirtschaftliche Beteiligungen mbH) was established (the shareholders were SZVG [24.9%], DG (later DZ) Bank, and a couple of secondary multi-purpose cooperatives) in order to buy additional shares of Südzucker AG and to indirectly control the influence of SZVG.

Considering all these activities and taking into account that at the beginning of the 1980's a number of management relations were developed (1982: Karl Schneider, member of the management board of Frankenzucker, became board member at Südzucker and in 1985 the same applied to Theo Spettmann when he moved from Südzucker`s board into the board of directors of Frankenzucker). It became clear that both companies – Frankenzucker GmbH and Südzucker AG –had developed close links. So, it was only a matter of time until both companies decided to merge. The merger was assigned in 1986 and took nearly two years until the German antitrust commission agreed upon the plan. The merger was realised through stock swaps and the emission of new stock capital. At the end, SZVG held 51.3 % of the shares. On 23rd of September 1988, the new "Südzucker AG Mannheim/Ochsenfurt" was founded and the cornerstone was laid for an internationally operating company. Up to this time, Südzucker had developed its sugar activities exclusively in Germany.

Beginning with the 1990's, the company struck out from its traditional core business through acquiring foreign subsidiaries and through establishing product diversification activities. In the general assembly of Südzucker AG on the 24th of January 1990, director Karl Schneider made the following statement: "You might remember that the most important reasoning for the merger of Südzucker and Frankenzucker was the necessity to transfer the long-standing German sugar company into a European dimension in order to exploit the challenges and to resist the risks of a Common European market in a competitive dimension of company size" (own translation from original text; see Pohl (2001), p. 295).

In the pre-merger period Südzucker`s turnover was about 800 million Euros and ten years later it exceeded 4.5 billion Euros. This tremendous growth has been realised by a number of spectacular acquisitions and investments (for details and in historic order see Exhibit 6):

1989: Acquisition of Belgium Refinery Tirlemontoise (R.T.). Südzucker now became together with Italian Feruzzi-Group the largest EU sugar producer.

1989: Investment in AGRANA Beteiligungs-AG, Wien in order to serve the Austrian and Hungarian sugar and starch markets.

1996: Investment into the Polish sugar industry

1998: Investment into the Moldavian sugar industry

2001: Acquisition of Saint Louis Sucre, Paris

2003: Acquisition of 14 Silesian sugar mills (SSC)

2005: Start of bioethanol production in Zeitz (Germany)

2006: European wide expansion of bioethanol activites (Austria, Germany, Belgium, Hungary, France); leading position in the emerging bioethanol market

2006: First joint venture with a leading apple-juice concentrate producer in China

2007: Start of production in fruit preparation factory in Brazil

2008: Contracting with Mauritius (400,000 tonnes sugar)

2010: New pizza factory starts up in Westhoughton, UK

2011: Participation in ED&F Man, UK; second largest global sugar trader

In 1989, Südzucker chose to invest in international markets through acquisition of the Belgium Refinery Tirlemontoise and in the same year to set up the participation in the Austrian market leader Agrana. The strategy behind that was to consolidate in the West European market as well as to open up the way to East Europe with the support of Agrana´s business relations. The choice for Belgium and Austria was the favourable opportunity to buy two national market leaders. Both companies were IOFs and Südzucker did not change their business model with production contracts with farmers on the basis of negotiated price and quantity conditions.

At the end of the 1990´s Südzucker extended its international presence by acquisition of sugar factories in Poland and Moldavia. These investments were driven by expectation of emerging consumer markets and an underdeveloped production potential in these countries. Südzucker expected to improve the process of restructuring through its expertise and to support the development of efficient distribution activities through its know-how. The investment in Poland was basically initiated by a strong support from German farmers´ organisations who recommended these activities to the management of Südzucker (interview with Zeller, 2012). Anticipating the EU Sugar Reform, Südzucker decided to invest in a contracting partnership with Mauritius and to provide its logistics and expertise in the European trade relationships. Südzucker signed an exclusive partnership agreement with the Mauritius Sugar Syndicate to market up to a total volume of 400.000 tonnes white sugar, which is refined in factories in France (Saint Louis Sucre, Marseille), in Romania (Agrana, Buzau), Bosnia-Herzegovina (Agrana, Brčko). The recent participation in the world´s second largest sugar trader (also with trading activities in coffee, molasses, and tropical oil and bio fuels), ED&F Man, UK, is used to be a future platform to generate synergies and for further international growth (according to CFO Kölbl, 2011, p. 14).

The rise of biotechnology affected Südzucker in a more insidious way. Many of its primary competitors were heavily involved in emerging technologies. Foreign-based firms such as Cosun, Agrana and Danisco made most of the opportunity to improve growing periods, quality and yield and recorded major advances in their processing capacities and through takeover. The necessity of participating in emerging market segments drove the company to focus more and more on overseas investments. The capacity and diversity of the global giants` markets, product line and options dwarfed those of Südzucker. The firm had tried to meet these challenges posed by these hurdles by joining with its several partners to invest heavily in the acquisition and the ever-expanding emerging markets in East Europe. Südzucker could not ignore what was going on around them. Multinational competitors were on a global buying spree. Südzucker´s strategy has been to combine scale economies with diversification and vertical integration activities. One main driver for this strategic orientation is the EU sugar regime and its ongoing reforms. The likely consequences of the sugar quota reduction has convinced the company and its stakeholders to change the firm´s portfolio into new and emerging markets more or less closely related to the traditional sugar segment. One of the missions is to ensure that the sugar production remains in its traditional regions not without looking for new investment options. To compensate decreasing perspectives in the sugar segments (lower margins, lower quantities) and to open up growth options Südzucker continues to diversify in the food and non-food segments.

*Governance*

Südzucker AG´s publicly listing at the stock exchange, its relatively large share of free float capital of 34 % and its management structure identify the company as a typical IOF company (see Exhibit 13). The farmers´s cooperative SZVG tries to keep its majority at the level of +51 % of the shares. Süddeutsche Zuckerrübenverwertungs-Genossenschaft eG (SZVG) continues to hold a majority of 56 % with its own shares and those shares held by them on trust for their own shareholders. Other investors include the Austrian shareholders, via Zucker Invest GmbH, with 10 %. Hence, 34 % of Südzucker shares are widely held (free float).

The shareholder structure indicates that Südzucker has minor characteristic structural elements of a typical traditional cooperative. The distribution of shares and voting rights deviate from a typical democratic principle of 1 man 1 vote system. The shares in the companies include Class-A shares – with the right to one vote a piece - and Class-B shares – subscribed by Südzucker´s controlling shareholder, which had the right to 10 votes a piece. Concurrently, through an exchange offer, Südzucker´s minority shareholders could exchange their existing shares for Südzucker´s new Classes A and B. With its Class A and B shares, SZVG´s Group (cooperative) managed to control Südzucker. In 2012, to simplify the distribution of voting rights, a third union has been planned in order to ensure a more equal distribution of voting rights for the shareholders. The Südzucker´s funding comes from four main sources: bank loans, capital equity, operational result, and when necessary, from the emission of bonds. The SZVG participated vigorously in the ownership and the leadership of SZ (since 1987 SZVG president or chairmen of its supervisory board acts also as chairmen of SZ`s supervisory board). With its +50 % stake in the Südzucker company and a shared background in and strong commitment to agriculture, strategic decisions were made jointly. If, in general, a cooperatives´ objective is to serve member needs and to enhance the financial well being of its owners as producers and as investors, it will be Südzucker´s and SZVG´s objective to realise both benefits, that for producers as well as for investors. This concept might explain why the company is some kind of hybrid type of organisation with the typical characteristics of an IOF and of a cooperative – one can say it is a C-IOF (cooperative- investor owned firm).

Sugar beet farmers receive a contractual price for the quantity of sugar beets negotiated, plus a complement fixed by the inter-professional. There is an additional complement in the form of a dividend indexed on the company’s performance. This latter complement is separate from the engagement between the cooperative and its members, coming instead from diversification, i.e. the distribution of dividends.

*Management of the group:*

Südzucker is controlled by a Supervisory Board, responsible for outlining the company’s strategic concepts, and by an Executive Board, which ensures that the interests of the various shareholders of the group are respected and which is managing the groups´ business activities.

Since the year 1987 until today the chairman of the Supervisory Board of the SZVG also has acted as the chairman of Südzucker´s Supervisory Board. This safeguards the interests of the cooperative shareholders in the company. One representative of Agrana is also a member of the Executive Board of Südzucker. The clear division of the responsibilities between the Supervisory and Executive Boards facilitates pro-active decision-making, while making it possible to effectively safeguard the interests of the cooperative growers as a whole.

The Südzucker group is structured into four segments: sugar, special products, CropEnergies, and fruit segment. The sugar production sites in Germany, Poland, Moldova, Belgium, France, Austria, Romania, Slovakia, the Czech Republic, and Hungary belong to the sugar segment. It also includes the division of “Bodengesundheitsdienst”, a section responsible for soil testing, fertilisation advices, comparison of plant nutrients, virus analysis and giving recommendations to the sugar beet producers. The special product segment includes four consumer product divisions: Beneo for functional ingredients, Freiberger (European leader in deep-frozen and chilled pizza), PortionPack (European market leader design, production and sales of portion packed products), and Agrana for the starch activities. The third segment includes the bioethanol activities for the fuel sector with locations in Germany, Belgium and France. In the fruit segment, Südzucker is a global market leader regarding fruit preparations and it is the leading European producer of fruit juice concentrates. Each of those segments is directed by a member of the Executive Board.

## 3.3 Relevant support measures affecting structure and strategy

Firms are subject to different forms and categories of government intervention in markets. These regulatory activities, like “social regulation” of environmental, health and safety practices, antitrust policy, and tax and tariff policies may affect the same economic variables. Firms are typically exposed to these policy and government measures, making it difficult to analyse the effects of one type of regulation in isolation from others. However, we will try to focus our brief discussion on the most evident effects.

There are a number of relevant support measures that have affected decisions of the companies and that influenced the companies’ structure and strategy.

*European sugar market regime*

For the German and Austrian sugar sector by far the most important and persistent policy measure with regulatory effects is the CMO of sugar. Südzucker has identified the date or it has anticipated on which expectations about the regulatory regime change, rather than the date the regime actually changes.

That ability gave them an advantage over other European competitors who realised relatively late that international strategies are the way for company growth. “The sugar market regime and the several announced and realised changes are to a large extent responsible for the development of international strategies and it also acts as a catalyst for investing into diversification” (interview with F. Zeller, SZVG, March 22nd, 2012).

Südzucker’s/AGRANA's sugar segment has been subject to the European Sugar Market Regime, which covers both sugar and isoglucose in EU member states. Despite a series of amendments and changes, the market regime which has regulated the European sugar market since the mid 1960s, had remained fundamentally unchanged until June 30th, 2006. The market regime included production quotas, import restrictions on sugar and subsidised exports from the EU to the global market, among other aspects.

In the course of globalisation and in response to efforts and discussions relating to the deregulation of global trade, as also pursued in other agricultural markets and areas of commerce, a reform of the European Sugar Market Regime in place until 2006 became unavoidable.

The key objectives of the reform of the EU Sugar Market Regime (the reduction in the European sugar production volume by approx. six million tonnes to 12 million tonnes in order to avoid surpluses, the 36 % reduction in the reference price for EU and imported sugar, and the reduction in the minimum sugar beet price of 40 %) has had some mixed (at the announcement) and then positive effects. From the viewpoint of Südzucker Group the introduction of the self-financing system of voluntary quota returns set up by the sugar industry was a change with positive effects at the end. This fund was used to reimburse producers and beet growers which voluntarily surrendered their production quotas as they were no longer able to produce sugar as a result of climatic or economic factors under the new circumstances in the sugar marketing years 2006/07 to 2009/10 (four years). Since Südzucker had invested internationally in favorable sugar production regions in former years they were not that much hit by this intervention. Südzucker Group is currently in a relatively comfortable position because most of its locations are situated in favorable regions (the “Beet Belt” of Südzucker, see Kölbl, 2011, p. 11) and regional competition has been downsized by this.

Prior to and in the course of the reform, the Südzucker/AGRANA Group was required to surrender 117,000 tonnes of production quotas and to close four sugar factories at Gross-Gerau and Regensburg (Germany) and Hohenau (Austria) and Petöhaza (Hungary). The net financial burden as a result of the restructuring levy imposed by the reform amounted to around € 240 million.

The restructuring in the sector is aimed at removing those growers and processors from production that will be unable to operate in a business environment in which prices have been severely cut. Sugar factories and beet growers will be encouraged to give up their quota rights. In this way more efficient producers will have better opportunities for the future and the EU will not lose productive capacity.

The 2009/10 sugar marketing year represents the conclusion of the reform period. The current EU Sugar Market Regime is valid until 30th September, 2015, the date on which the 2014/15 sugar marketing year closes.

Under the current EU Sugar Market Regime, valid since 1st October, 2009, the European sugar market has been open both to imports from Least Developed Countries (LDC), under the so-called Everything But Arms (EBA) Agreement, and to imports from ACP (Africa, Caribbean & Pacific) countries under the Economic Partnership Agreement. Customs duties and quantity-based restrictions have been fully lifted. A special protection clause is intended to permit the reintroduction of protective import duties if defined import volumes are exceeded. Südzucker benefited from this regulation by contracting 400,000 tonnes of sugar with Mauritius in 2008.

This reform had an enormous impact on the Südzucker Group and led to a radical shake-up. It has created a smaller (in numbers) sugar industry, but also a more competitive one and it has provided access to the least developed countries and to comply with the rules of the WTO. These have been now accepted by the company.

From the viewpoint of the farmers´ producer organisations the interprofessional agreement in the sugar industry has positive effects. The diversity of natural, economic and technical situations makes it difficult to provide for uniform purchase terms for sugar beet throughout the Community. Agreements within the trade already exist between associations of sugar beet growers and sugar undertakings. Therefore, framework provisions are due to define only the minimum guarantees required by both sugar beet growers and the sugar industry to ensure a smooth functioning of the sugar market with the possibility to derogate from some rules in the context of an agreement within the trade. However, within the overall level of production, there will be gradual shifts between regions and Member States. This is necessary in order to promote greater competitive efficiency. In regions where sugar production ceases, the industry will be able to take advantage of the EU-funded conversion scheme for those wanting to leave the sector. This will help to cushion the social and economic effects of closure.

Finally, as far as sugar beet farmers are concerned there is no reason to expect any significant effects on employment since those leaving beet growing will turn to alternative arable productions.

*Economies of scale and antitrust policy*

Additional to the effects of the EU sugar market regime there are other measures which have important repercussions on the strategic development and the international focus of the German/Austrian sugar industry. The national and EU antitrust policy is another measure that affects the current structure of the companies and the sector and that lead to changes in the strategic focus of the industry. The national antitrust policy prevented the sugar sector from becoming monopolist. This in particular came true in the anti-trust case of the acquisition of Danisco by Nordzucker in 2009. This merger was accepted by the EU-Commission only under the condition that the Danisco subsidiary in Anklam-would be sold to a company other than Nordzucker or Südzucker. This decision obviously made clear that company growth of German sugar companies can only be realised in other than German boundaries.

# 4. The third case: Tereos (FR)

## 4.1 Facts and figures on sector and cooperatives

In France, sugar is mainly obtained from beet. France is the world's leading producer of sugar beet, with 35.1 million tonnes in 2009/2010, and also the leading European sugar producer. Any change in policy or regulation in the sugar sector has an impact on cooperatives.

*Restructuration processes in the French sugar sector*

In 2011, Tereos' share of the French market was 40.2%, Cristal union and Saint Louis, 35.1%. Sugar cooperation production represents around 80% of the French production.

In 2010, there were 7 sugar companies with 25 sugar refineries, most of them localized in the North of France[5]; in 2012 the sugar sector has become more and more concentrated, with only three competitors. Of those three major sugar companies left in France, two of them are cooperatives. In 2011, Cristal Union bought La Vermandoise, and the two cooperatives now account for 75% of French quotas and 80% of the production. With this acquisition, Cristal Union will have 4,000 more members, 900.000 tonnes of sugar beet and 4.5 million hectolitre of alcohol.

Tereos wants to master the value chain, while being competitive in the process of transformation and trading with new developments. Quotas have affected Tereos and led to diversification. The prospect of abolishment of quotas that may occur as early as 2015 or 2020, has led Tereos to reinforce its product and geographical diversification. Cristal Union has developed another strategy, more oriented on the French and UE markets.

*Impact of the sugar regime reform on the French sugar sector*

As in other European countries, the French sugar sector has become concentrated mainly because of the EU's sugar regime reform. That reform induced a great deal of restructuring by EU producers and farmers. The corollary for the quota system was the fixation of an annual price for European sugar in and outside the quota (Kotbi and Sauvée, 2010).

The European sugar regime had been criticized because it maintained an artificial European price that was far above the world market price (around 600 Euros per tonne compared to 250-Euros 300 per tonne on the world market). Therefore, the EU decided to change the sugar regime, which led to the reform of 2006.

After the Everything But Arms' agreement, Tereos decided to go international and invested in Brazil. Cristal Union decided to stay focused on France and Europe. That restructuring process accelerated after the sugar regime reform in 2006.

The EU sugar regime reform, in 2006 and 2008, had a big impact on cooperatives: Tereos abandoned 13% of its quotas, and closed 3 sugar refineries, and Cristal Union closed 1 sugar refinery.

*Perspectives*

World sugar production has undergone a very significant decline in the last three campaigns, and it was not until 2011/12 that it was to regain a level above that of 2007/08. It was that situation which was the root cause of soaring world sugar prices until 2010/11. The prices have broken all records for the last 30 years, $ 880/tonne for white sugar and $ 690/tonne for brown sugar in July 2011.

[1] By comparison, there were 34 sugar companies and 57 sugar refineries in France in 1980, French Report 2011.

The European Union is the main outlet for French sugar by volume (1.8 million tonnes) and value (1 billion Euro). French exports of sugar amounted to 1.1 billion Euros in value, a quarter of the turnover of the sector.

## 4.2. Strategy and structure of Tereos

Tereos is a cooperative owned by 12,000 French sugar beet producers. Tereos is an agro-industrial cooperative group specialized in the primary processing of sugar beet, sugar cane, potatoes and cereals into a full range of sugars, starch products, alcohols, bioethanol and co-products intended for animal feed and electrical power.

With its 39 industrial sites across Europe, South America and Africa, Tereos offers sustainable outlets for the production from one million hectares of farmland.

Tereos has achieved a strong rate of development over the past 20 years, multiplying its total production by 50. It is its ability to plan ahead, and it has the expertise to control the techniques and markets involved**,** which have enabled Tereos to lead the way in the production and transformation of sugar (Tereos website, 2012).

Table Tereos Key figures:

- **12,000** cooperative growers
- 40,000 cereal growers
- **26,500** permanent and seasonal staff
- **38** industrial facilities
- **1 million** hectares of agricultural area processed
- **3.6 million** tonnes of sugar, 4th world producer
- **1.9 million** tonnes of starch-based products, 3rd European producer
- **1.7 million** $m^3$ of alcohol and ethanol, 1st European producer and 3rd Brazilian producer
- **535** GWh of electrical power
- **4.4 billion** Euros in revenues

*History and strategy*

Tereos is localized in the North of France and in various countries in the world. In 2011, 70% of its turnover came from outside France (Tereos, Annual Report 2011). Its development can be grouped into three main periods: origins, national and international growth, with diversification, and the constitution of a group combining diversification and Internationalization (see Exhibit 11).

*Its origins*

**1932** Establishment of a cooperative distillery at Origny

This was followed by a sugar factory at Origny (sugar beet) based on the same territorial perimeter. Thanks, however, to its founder, Jean Duval, the extraction and refinery processes were improved. Jean Duval did not own any social capital.

Their competitive trump card: much better yield (sugar beet volume and higher sugar content) and better quality (sugar ratio per tonne). All this improved performance is due to the process of optimization stemming from industrial flexibility (a distillery which optimizes co-products such as pulp, alcohol, biomass, gas and electricity). Nonetheless, all that is still costly with, for example, the sugar cane waste or bagasse being burnt to produce electricity. After WWII, the territorial perimeter was extended via a partnership with numerous agricultural cooperatives in Picardy (supply basin logic).

**Until 1990**, SDA (now Tereos) developed its activity prioritarily in France by means of mergers (SDHF) and acquisitions (Béghin Say). UDA was born in 1996 issue from the merger between “Sucrerie and Distillerie de l’Aisne” and the “Sucrerie Distillerie d’Artenay” in Loiret. After the acquisition of Beghin Say in 2003, SDA/Béghin Say became Tereos.

*Its international strategy, the Czech Republic and Brazil*

**In 1990**, Tereos chose to go international by setting up in the Czech Republic and in 1992, it bought 80% of the Czech producer, TTD. The logic behind that was to ensure a sufficient number of outlets. The choice of the Czech Republic was triggered by the presence of the best sugar beet factory engineers, and by good yield control. H. Van Berb was the person who would restructure the sugar beet production basin and promote its internationally recognised know-how. Currently, the Tereos installations in the Czech Republic are in the form of Business Law companies, but with 3-year renewable contracts with farmers on the basis of an agreed remuneration and a price complement (interview with Van Dyck).

The early 2000s saw the consolidation of Tereos’ international presence with their development in Brazil. Having anticipated the EU Sugar Reform, Union SDA decided to invest in a joint venture with Cosun and with the French trader, “Sucres et Denrées”. Thats was also the occasion to enter the vast Brazilian ethanol market. This gives Tereos a production capacity of 21 million tonnes of cane sugar in 7 sites. In 2011 the group launched a new investment program (330 million Euros) to increase its production capacities up to 3.5 million tonnes. In 2010, the partnership with Petrobras aims to reduce dependency on sugar (Eurostaff, 2011).

Tereos’ implantation in the Reunion was to follow the same logic, with 200,000 tonnes of sugar, 24,000 hectares and 4,500 growers. The choice was made not to group the farmers into cooperatives, since they did not seem to be ready for such a form of organization. Tereos’ action plan is to adopt the same approach everywhere, developing a sense of proximity with producers, inspiring trust, providing a certain remuneration, and transparency in all decision making. The specific choice of those companies concentrates on high-yield agricultural areas (cf. the implantations in Mozambic and Tanzania) (interview with Van Dyck).

Over and beyond internationalization, the strategy of Tereos is also to diversify its activities. That is why the group has agreed to create more place to the transformation of cereals, via its subsidiary Syral. The group has also diversified into starch-based products by acquiring 5 factories from the British Tate & Lyle group in 2007 (see Exhibit 12).

Tereos International was created in 2010 in order to bring together its worldwide activities of sugar cane and cereal transformation. In this way, Tereos has gone a step further in internationalization. Thanks to that, the group is now a key actor in the food and bioenergy sectors, and engaged in a process of consolidation. The objective is also to attack new markets such as America or Asia.

| **Key Dates for Tereos in Brazil** |
|---|
| **2000** : Union SDA decided to invest in a joint venture with Cosun (270 millions de francs)<br>**2006** : Guarani develops new activity, bioéthanol |
| **2007** : Acquisition of 5 starch-based products factories to Tate and Lyle group, introduction Guarani in Stock Exchange San Paolo Market |
| **2010** : Creation of Tereos International, Guarani Brazilian company with Brazilian bioenergy leader Petrobras, partnership with Danisco (France), partnership with Pure Circle, acquisition of Quartier Français, Réunion (France). |
| **2011** Acquisition of Brazilian Halotek, processing specialist from cassava to strack |

*Concentration and diversification*

Towards 1993, the strategy of diversification was extended to the cereal industries via a partnership (JBM Germany) for a joint starch-based products factory in Alsace. Tereos considers itself as a transformer, not as a trader: the industrial logic at work is destined, both in Brazil and in the Czech Republic, to increase the tonnage and the number of industrial sites (in 2012: 24,000 tonnes with 10 sites and TTL as the 3rd EU producer; the same for Brazil).

Tereos combines vertical integration and diversification strategies, insisting on this all the more ever since the implementation of the EU sugar regime reform. Even though Tereos has had to assume the consequences of the sugar quota reduction, it has known how to venture into new markets (alcohol, bioethanol, chemicals industry). Not only has Tereos managed to maintain the acreage of sugar beet production handled by its factories but it has also been able to expand. At the same time, its investments in starch, glucose and bioethanol have opened the way to the processing of nearly 3.6 million tonnes of cereals, mostly produced by French farmers (Tereos website).

There is equally a long-standing partnership between several cereal cooperatives. Those eleven cooperatives (Agrial, Axéréal, Axion, CAH, Cap Seine, Céréna, Noriap, Océal, Unéal, Valfrance), as shareholders in the Tereos Agro-Industry holding (with 35% of Social Capital), have been able to add value to the production of their members and also to secure their members' outlets. This partnership has given rise to two projects (BENP ethanol and Syral ). With all those investments, Tereos has become a major French agricultural cooperative group and one of the main sugar leaders in the EU market. To decrease the impact of the decrease in sugar margins, Tereos continues its diversification strategy with alcohol, starch and biocarburants.

*Governance*

Its cooperative statute obliges Tereos to ensure the industrial and commercial extension of its cooperative members' operations, to improve their profitability and thus contribute to the sustainability of their agricultural businesses (see Exhibit 13).

*Organization of the group*

Union Tereos came from two cooperative unions USDA (60% voting rights) et UBS (40% voting rights) in accordance with their respective contributions, since USDA had assumed a greater proportion of the investments (acquisition of Béghin Say). The democratic principle of 1 man 1 vote, has been ponderated according to the contribution of each.

In 2012, to simplify the distribution of voting rights, a third union has been planned in order to ensure a more equal distribution of voting rights for the 12,000 members.

The group is organised around 3 raw materials and 6 divisions. Those divisions are profit centres which integrate all the operations and combine transformation and commercialization. The first profit centre concerns beet sugar (France and the Czech Republic); Brazilian sugar cane via Guarani; multinational cereals transformation in China and Asia; Tereos Océan Indien which includes Africa; and the Mozambique division which will ultimately be included in the Océan Indien. The divisions are groups in terms of the coherence of raw materials and their geographical zones. Each of those divisions is directed by a member of the Executive Board.

*Management of the group:*

Tereos is overseen by a Supervisory Board, responsible for mapping out the Group's strategies, and by an Executive Board, which ensure that the interests of the various cooperative growers are respected.

The Supervisory Board takes the major financial decisions, while the Executive Board's responsibilities include proposing development projects to the Supervisory Board and managing the Group.

Tereos groups together 12 sugar beet cooperatives, with each of those cooperatives having at least one representative on the Supervisory Board. The cooperatives' boards of directors are provided with regular updates on the Group's strategies and projects. In addition, they meet at least twice a year for general information meetings, so that in that way, the 200 cooperative directors can share the information with the 12,000 cooperative growers and Tereos.

This clear division of responsibilities between the Supervisory and Executive Boards facilitates pro-active decision-making, while making it possible to effectively safeguard the interests of the cooperative growers as a whole.

Training sessions have been introduced for the 17 Supervisory Board members who, for the most part, but not exclusively, are presidents of their first-level cooperative. The Supervisory Board members define Tereos' strategy. Their decision-making power, given by their owner-members, is ponderated in terms of the specific contribution of their own cooperative to Tereos. The Supervisory Board meets every month and validates the business plan. It is also charged with monitoring the Chairman of the Executive Board.

The Chairman of the Executive Board has all power. The *bureau du conseil de surveillance* serves as a link between le *directoire* and le *conseil de surveillance* and to conserve the proximity relation. Owner-members are not involved in the cooperative management.

The *Executive Board* is represented in the group subsidiaries. Each member of the *Executive Board* is in charge of a *direction* and also of a transversal function (e.g.: Etienne Van Dijk is general manager of the cooperative and of the group and is also in charge of the Océan Indien Division). The *Executive Board* meets every two weeks for half a day.

*Funding of the group*

Funding comes from three main sources: bank loans, capital equity, and EMDA auto-funding which represents the operational result. The distribution decisions are then divided between price complements, new investments and identical replacements.

*Relations with first-level cooperatives*

Tereos acts as a cooperative of proximity with its members to offer them high-performance services and the best possible outlets. The 12,000 owner-members, sugar beet producers- of Tereos and their cooperatives - operate on a fully contractualised basis ("*apport total contractualisé*"). It is a second tier cooperative which IOFs are introduced at holding level. The rule of one man / one voice, is respected but is weighed in relation to the specific contributions of each first-level cooperative. This specific characteristic of sugar beet production explains why there is a certain diversification in the farms, with sugar beet producers also being cereal cultivators. Cereal and sugar beet crops have to be rotated in order to ensure high yields. That is why Tereos offers crop rotation to its members together with the associated processes (transformation and commercialization). Access to the market drives the whole production process. The development logic at work is based on controlling the whole process from A to Z for sugar beet, sugar cane, cereals (wheat, maize, potatoes, and manioc). See the investment in the Marne concerning starch.

This creation of value produces a financial return on the processing of sugar beet in the form of price supplements and from diversified businesses in the form of dividends. In the 1990s Tereos began a diversification program that took it beyond its traditional markets and into the rest of the European Union, Brazil, Africa and the Indian Ocean. This successful diversification strategy was a response to the globalisation of markets and to the increase in the critical mass of customers and competitors.

*Members' remuneration*

Members receive a contractual price for their contributions, plus a bonus fixed by the accord interprofessionel. There is an additional bonus in the form of a dividend indexed on the company's performance. This latter bonus is separate from the engagement between the cooperative and its members, coming instead from diversification, *i.e.* the distribution of dividends.

The risks are related to market volatility and raw materials. For the market risk, Tereos has hedging tools, primarily on the currency market, which enable it to handle that risk. For commodity risks, the tools vary with the type of product. For the purchase of cereals, the price fluctuations require coverage with market anticipation of purchases: 50%, which is covered in 1 year, and 80%, which is covered for 3 months. There is currently no better solution. For the sale of sugar, the price of sugar cane is indexed to that price of sugar and therefore the risk affects the cane. For the purchase of energy, Tereos uses the market to hedge purchases.

## 4.3. Relevant support measures affecting structure and strategy

"Sugar quotas have affected Tereos and led to its diversification. The prospect of the end of quotas, which may occur as early as 2015 or 2020, has led Tereos to reinforce its product and geographical diversification. Because sugar is an ingredient in a lot of food and its weight hinders its transport." (Interview with Van Dyck)

Until 2003, the production of sugar beet was one of the raw materials that received most aid through a system of guaranteed prices to farmers and sugar processors.

Afterwards, three main policy measures at European and national levels impacted the sugar beet market:

**In 2003**: in order to ensure conformity and to achieve compliance with the European system with WTO requirements, the new CAP introduced decoupling and confirmed the gradual reduction of export refunds.

**In 2005**: the French government announced goals of incorporating biofuels in fuels. France wants 5.75% in 2008, 7% in 2010 and 10% in 2015. This measure was rather good for bioethanol production, which uses beet a raw material.

**In 2006**: new Sugar Policy. The restructuring fund had not worked satisfactorily and an oversupplied market had a depressing effect on prices. The European Commission was committed to improving the systems of quotas concerning production to make it more attractive.

**In 2007**: Europe committed itself to reducing its sugar production by around 5 to 6 million tonnes. France participated in the European effort to reduce production by offering to compensate producers who agreed to abandon in part the production of beet, accompanying the decrease in the production of sugar plants. In the short term, that would decrease production acreage in some areas, the closure of the sugar plants, with the loss of employees (Marconnelle, Abbeville, Vic sur Aisne, Aiserey, Guignicourt, i.e. 1/6th of the total number of sugar plants).

In 2000, Tereos invested in Brazil, were it became a major sugar actor in 2003 with the acquisition of Guarani (Cosan). It also became, at the same time, a major actor for the production of sugar for ethanol. Then, in 2010, with the reorganization of foodstuffs and bioenergy activities, its perspectives were to introduce itself into the USA and Asia. It also confirmed its diversification in the transformation of cereals. The reason that explains its international development in Brazil is related to the Sugar policy measures. Tereos is a very interesting cooperative because its international development, its leading position, and its funding organization are somewhat innovative compared to the other French agricultural cooperatives. To illustrate this specific funding strategy, in 2007, Tereos emitted a bond issue of 500 million euros and introduced its Brazilian subsidiary, Guarani, onto the Sao Paulo Stock Exchange. In 2010, Tereos developed a partnership with Petrobras: Petrobras acquired 49% of the Social

Capital in Guarani for 686 million Euros. Finally, Tereos Internacional is listed on the Novo Mercado segment (see Exhibit 14).

*Conclusion on Tereos Strategy (Eurostaff, 2011)*

In anticipation of the EU sugar reform, Tereos accelerated its internationalization strategy in the early 2000s, through access to Brazil. Now, over 70% of its turnover is generated abroad. Intending to become less dependent on sugar, the group has also diversified into starch, which now represents nearly 35% of its turnover.

Tereos decided early to invest in Brazil in order to avoid the EU quota constraints which would, according to managers, have limited its development. Tereos is, therefore, present in both beet and cane sugar, and positioned as a world leader in the sugar sector. The group expects to take advantage of the development of biofuels to increase its activity.

In future, a gradual dismantling of the CMO sugar between 2015 and 2020, tending towards full liberalization, is one of the most likely scenarios according to a recent prospective study of the Rabobank. Through its operations in Brazil, Mozambique and Reunion, and its diversification into starch, Tereos should maintain its position among European leaders and profit from the bankruptcy of several smaller European operators. The group seems ready to confront the arrival of foreign operators, and could develop more sugars from cereals if the price remains strong. The position of Tereos is clearly in favour of the continuation quota regime until 2020 (interview Van Dyck). The main reason is due to the price volatility which is a most important instability factor for producers as for consumers. But it is also due to specific sugar beet characteristics (stock and transport). Tereos anticipates that it is possible to ameliorate productivity performance (production, transformation and genetic). Sugar is a strategic importance regarding food security. It seems that Tereos, as for Sudzucker, which is already large and diversified will probably maintain their current market share and may even get the opportunity to grow within the EU market (Rabobank, 2011).

# 5. Analysis by comparison

In our analysis of the cases we will concentrate on the following aspects that we think are relevant for the overall assessment of the cooperative´s development in the internationalisation process:

- The specificities of the product and the market concerned;
- The relationship between cooperatives and other actors of the food chain.
- Economic, fiscal, and public incentives and disincentives for the Internationalisation process;
- Legal aspects, including those related to competition law;
- Historically, culturally and sociologically relevant aspects;

## 5.1 The specificities of the product and the market

The analysis has developed a number of predominantly market characteristics substantially effecting the competitive forces of the sugar industry:

- The high market transparency. Competitors easily have access to detailed information and knowledge of market conditions, terms of trade, the character of sugar beet production and delivery contracts, prices, and on contractual exchange conditions between companies. For example, in March 2005 the German Nordzucker have had talks with its domestic rival Pfeifer & Langen on their interest in acquiring the Dutch competitor CSM (Cosun); Nordzucker and Südzucker jointly discussed their mutual interest in buying the sugar activities of Danisco, and Südzucker at an early point of time was aware of the interest of Cosun and Pfeifer & Langen in the acquisition of the sugar factory Anklam (see also Bundeskartellamt, 2009).
- The market for produced sugar is a saturated and mature market. Product innovations in ordinary sugar products are not to be expected and sugar is characterised as a commodity product with relatively stable supply and demand conditions. The sugar industry does not have a long tradition in new product development and branding is not very common. The majority of the product innovations are only incremental: variations in form, sweetness, colour and packages. However, over the past decade research and development on natural and artificial sweeteners have been intensified. Farmer owners could be convinced to join into its competitors` market segments. In order to comply with the important consumer trends related to health, research has focused on developing a new generation of low calorie sweeteners. All companies studied have invested some of their budgets in establishing their own research centres. They also have created their own venture funds to engage in companies that develop high value added food and industrial ingredients. Another important development is the production of bio-ethanol from sugar. Brazil leads in this development, but Cosun, Südzucker, and Tereos have also taken up this production activity but with different speed.
- The sugar producers analysed supply a comparable product assortment and they are able to reliably offer all kinds of product differentiations (like granulated, caster, cube, and jam sugar).
- From consumers` perspectives there is no significant product differentiation between the companies. There is a relatively high consumer confidence into the product quality and safety of domestic suppliers. In case there is a product innovation it would be subject of an immediate imitation process without any chance of a sustainable additional value creation.

- A pronounced transparency on the different parts of the production costs is favouring what is called oligopolistic parallel pricing behaviour. Companies` processing costs are transparent to each other and – at least among the leading companies – well known. The price of the raw product (i.e. the purchase price for sugar beets) is subject to CMO minimum-price regulations. There exist some differences in the product prices set by sugar undertakings but the differences are not very significant. Producer prices negotiated between the single sugar company and their sugar beet farmers are made public as well as the terms of trade.
- There is some difference in sugar prices for non-quota sugar (no CMO minimum prices are effective here) between the companies. A high price transparency exists because of the interaction between reference price system, transparency of key cost factors and the homogeneity of the products.
- Based on the historic demarcation act sugar sales and distribution within Germany is restricted to traditionally delineated regions with mutual agreements to accept these core areas.
- For all four companies analysed internationalisation is the main growth strategy. Due to past restructuring of the national industries by merger and acquisition activities there are no (for Austria, Germany and The Netherlands) or only a few (for France) opportunities for growth inside the home country. Main reasons determining the internationalisation strategies are the predominant economies of scale and the liberalisation of the European sugar and world markets in general.

## 5.2 Cooperatives and the process of internationalisation

There are a number of different arguments and reasons for internationalisation of food companies and cooperatives. The EU-synthesis report on "An EU wide analysis of transnational cooperatives" (Bijman, Pyykkönen, Ollila, 2011) provides such an analysis for cooperatives in different agricultural sectors and settings.

For most firms, entrance to new, foreign markets or industries and development of a strong position in the international market place are essential for growth (Buckley and Ghauri (2004); Tan (2009)). Factors such as the rise of emerging markets, de-regulation, and technological developments further encourage the internationalisation activities of agribusiness firms. Within the sugar industry in most European countries the degree of firm concentration is that high that the acquisition of foreign competitors is the only way that remains for additional growth. To achieve a better fit with different foreign markets, researchers usually expect international firms to consider substantial adaptations of products, strategies, and market activities (Ghauri, Tarnovskaya, and Elg (2008)).

The notion of adaptation aligns with the more general view that a high degree of market orientation will lead to higher performance (Day (1994); Jaworski and Kohli (1993); Narver and Slater (1990)), thus implying that managers in charge of a foreign entry should adapt to the host country`s market trends and customer preferences (Cadogan, Diamantopoulos, and de Mortanges (1999); Christensen and Bower (1996); Kumar (1997); Slater and Narver (1998)).

Adaptation – in the sense of a traditional market-orientation approach - means that the firm must keep modifying both its corporate strategy and the core values it offers to the markets in terms of products and services (Jaworski, Kohli, and Sahay (2000), Slater and Narver (1995). Here is also another stream of studies suggesting that many successful firms base their operations on influencing and changing the market conditions and the minds of the costumers rather than adapting their own strategic approach and market activities to local or national circumstances (Carrillat, Jaramillo, and Locander (2004); Harris and Cai (2002); Jaworski et. al. (2000); Kumar (1997); Kumar et. al. (2000)). This approach appears to reflect the ideas of the resource-based view, since it allows the firm to leverage its unique capabilities regardless of the characteristics of the specific market that it enters (Narver, Slater, and MacLachlan (2004); Tuominen, Rajala, and Möller(2004)).

Our analysis demonstrates that the process of and the requirements for adaptation described in the literature heavily depend on the given product. Sugar is a standardised product, not very complicated to explain to foreign consumers or industrial customers. Consequently, there is no large effort necessary to educate consumers or industrial users and exert an influence on their values, norms, and behaviours. Customer perceptions and behaviour in both markets (domestic and foreign market) occur to be nearly identical. There is no need for a sugar company that enters into a foreign market by acquiring a foreign sugar company to act proactively by discovering, understanding, and satisfying customers´ latent needs. It is reasonable to assume that the potential for doing so will be especially great in emerging markets with less-developed demand for different types of products and solutions that are already familiar in the home country. In the sugar sector going and investing abroad into sugar producing facilities is not accompanied with at first educating customers. Sugar consumption and sugar use are well known. All cooperatives analysed started their international strategic orientation in their core business by focusing on the acquisition of foreign primarily sugar producing companies (Cosun: sugar factory in Anklam; Südzucker: Tirlemontoise, Agrana, Polish sugar industry; Tereos: TTD in the Czech Republic). These decisions enabled the sugar cooperatives to exploit and to easily transfer their competencies and knowledge (same technology, similar organisational structure between farms and company) to their new foreign subdivisions.

## 5.3 The degree of success and the supply chain

All cooperatives are the market leaders in their home country in at least one of their product segments. They are the dominant firms for many years:

- Cosun is the market leader in sugar in The Netherlands
- Südzucker /Agrana are number one in sugar in Europe, number one worldwide in isomalt and oligofructose, number one in Europe in frozen pizza (private label market) and portion pack, and fruit juice concentrates, and number one worldwide in fruit preparations.
- Tereos is number one in sugar in France.

To strengthen the position and leadership in their core businesses Cosun and Südzucker have re-defined parts of their expansion strategy and of their vertical boundaries. As a consequence, Cosun sold Unifine, having activities too far down in the chain, and Nedalco, currently only processing cereal by-products and thus not connected to sugar production anymore. These kinds of decisions are in line with those of Südzucker and Tereos. In 2001, the former sold the well-known ice cream producer Schöller (Nuremberg) that it had acquired six years before. And, Tereos has a strong commitment to master the whole sugar value chain (s. p. 26).

## 5.4 International diversification

Except for the pre-internationalisation period all cooperatives used external growth by merger and acquisition. The internal development of new business units could not be identified properly. Investment and internationalisation benefited from the financial resources of the companies. There seems to be sufficient capital resources available for investing abroad thanks to the traditional sugar business enabling the cooperatives to secure substantial profits for these activities.

The cooperatives in our analysis are basically sugar producing companies. But, within the last twenty years they all have heavily invested in the diversification of their businesses. Also, the companies analysed are cooperatives or cooperative-like companies whose members/shareholders are only or by majority sugar beet growers, thus being very homogeneous on the membership side, the companies are diversified on the market side (s. e.g.

Cosun or Südzucker/Agrana). Most of the subsidiaries produce a broad range of products, directly or indirectly related to sugar. The rationale for diversification was the observation that individual shareholders/members benefit from investing in a diversified portfolio. Our results demonstrate that these benefits could best be realised by the acquisition of well established and successful operating companies. All four cooperatives invested into the market leaders of the given segments. There is some evidence that diversification is in the interest of the members or member-investors. A broadly diversified firm may receive only a small percentage of its revenues from any one line in business. Hence, a shareholder seeking to avoid large swings in value can invest in the diversified firm and then be shielded from great risks. In general, there are two reasons for choosing diversity: (1) diversity may benefit the firm´s owner by increasing the efficiency of the firm or, (2) if the firm´s owners are not directly involved in deciding whether to diversify, diversification decisions may reflect the preferences of the firm´s managers. Our analysis shows that the members of the cooperatives have a strong influence in the decision process of diversification, so their expectations on the likely benefits are an important driver.

For the sugar sector it is remarkable that most farmers are familiar in diversifying their own farm portfolio and seldom need corporate managers to do so on their behalf. A large proportion of the farmer members/shareholders run a diversified business. Growing sugar beets is just one production branch besides cereal growing in the total plant production portfolio on most farms.

Since international expansion is a risky investment, cooperatives may seek outside investors to become co-owners of the foreign subsidiary. Our analysis does not imply that foreign subsidiaries more often than domestic subsidiaries are joint ventures. Most foreign subsidiaries were completely owned by our cooperatives. There are also other examples showing that the method of market access cooperatives choose is always the same: for Tereos it is finding partners via joint ventures (e.g. Brazil with Petrobas, 31 % of Guarani, Widmart China) whilst still consolidating. So, the hypothesis that cooperatives going international are more likely to have diverse ownership structures can not be verified nor refused from our analysis. On the other hand, it can be verified that the foreign partner is most likely involved purely as an investor, the foreign subsidiary is set up as a profit making center. In all cases the cooperatives acquired IOFs and did not change the business model of the subsidiaries to a cooperative type model.

## 5.5 Relationship between cooperative success and internal governance

Taking the intensive process of internationalisation and diversification as given it is interesting to see farmer/shareholder members supporting the strategies of the cooperatives. In all cases a strong commitment of the members to strategic concepts and the decision made in the cooperative is reported. One of the reasons for that attitude could be the assurance to keep the sugar production as much as possible in its traditional regions, but not without looking for new investment options. The option being compensated for decreasing margins in the sugar segments by growing returns form international markets and diversified business units creates a great deal of acceptance. In all cooperatives there is a close proximity between members and the cooperative executives. That explains to a large part the success of the cooperative. The example described for Tereos may explain the principles: A cooperative group is somewhat heavy when it comes to the process of decision making (CEO in Tereos for 3 years). Therefore, the group has, opted for a delegation of all its powers to the Chief Executive, Philippe Duval. Each board member is officially authorised to represent his cooperative, and has the necessary decision-making power to support rapid decisions. Intranet and Extranet allow each member and employee access to the information (Beet Extranet service) to validate the operating principles of transparency, proximity and fairness in the group. In return, the cooperative is on a medium and long term time horizon, essential for planning of industrial investments. The dual dimensions of capitalist property and its corollary, shareholder stability, consolidates industrial strategies more than in the case of business companies.

## 5.6 Effect of policy measures on the internationalisation process

The past development and the past and current strategic decisions of the sugar cooperatives are not be seen independently of the governmental and policy interventions in the sugar market. The sugar industry in particular is still exposed to the EU-sugar regime that has fundamentally shaped competition and the relationships to the beet growers. One of the main management challenges was to gain good expectations about the regulatory regime to change and in what direction.

The CMO of sugar is seen as the most important policy measure that is affecting the structure and strategies of the sugar companies. Three main policy measures impacted the sugar beet industry:

- In order to ensure conformity and to achieve compliance between the EU-system and WTO requirements, decoupling was introduced and export refunds were gradually reduced, indicating that world market conditions would prevail predominantly in the future, otherwise than in the past.
- The reduction of the European sugar production volume and the restructuring programme has encouraged producers to give up quota rights and the industry was required to optimise sugar production capacities.
- The current Sugar Market Regime has opened up imports form LDCs under the Everything but Arms agreement and from ACP countries. For the sugar companies in this analysis these modifications in the policy measures led to an increase in the attempts to invest in international business relations.

The key objectives of the reform of the EU Sugar Market Regime (the reduction in the European sugar production volume and the restructuring of the sugar industry) have had direct and indirect effects on the cooperatives.

The direct effects can be subsumed as follows: policy measures enabled the cooperatives in the past to profit from the high sugar prices and the relatively stable sugar business. It has secured raw material procurement and the utilisation of production capacities. These measures were also to some extent responsible for gaining knowledge and expertise in sugar production and marketing. The reform itself has led to important structural changes in sugar production and market orientation. The indirect effects are that the reform itself and its early announcement have sent out important signals to the sugar industry. It has forced the industry to look for new strategies and to develop new market segments in domestic markets or abroad. The permanent discussions of the different reforms of the EU-regulation impacted also the internal discussions in the sugar cooperatives with their members/shareholders. It enabled the companies to convince members/shareholders to provide the required financial capital for their external and international growth.

Additional to the effects of the EU sugar market regime the national and EU antitrust policy has been another measure that affects the current structure of the companies and the sector and that leads to changes in strategic focus of the industry. National antitrust policy has restricted additional domestic growth by merging or acquisition. These regulations have influenced the future strategies of the analysed cooperatives.

# 6 Conclusion of comparative analysis

Government policy can often accelerate the trend towards globalisation in an industry. The rise in international acquisitions in the sugar industry during the 1990s was largely due to the expectations of a relaxation of the sugar regime. The four companies were encouraged by the EU-policy to share their technological innovations and to acquire sugar companies and related companies that exhibited ever higher minimum efficient scale. Südzucker e.g. has adopted a global strategy because its domestic market has moved to saturation and company growth was only available by acquisition of sugar companies in foreign countries. By acquisition of large foreign companies Südzucker and Tereos as well were able to immediately dominate the market in which they were entering (Austria, Belgium, Czech Republic, Hungary, Romania).

A number of industry-driven factors have prompted the two companies Südzucker and Tereos to develop an international strategy. These factors include growing homogeneity of demand, rising economies of scale, increasing technology intensity of new products, the pressure to amortise high costs of R&D, and to proprietary investments into critical value –adding activities by diversification, like pizza production, food ingredients, etc. These industry drivers oblige the companies to compete along a highly standardised and consistent manner across different markets. Domestic and foreign markets the companies entered are highly interdependent and mutually supporting as far as sugar beet farming, sugar production, and marketing is concerned. Transfer of knowledge in these functions was easily possible which created a high level of internal cohesion and consistency. Key to pursuing an international strategy was the integrative view of building and extending their sources of competitive advantage. Both firms, Südzucker and Tereos, viewed each market in which they were competing as a platform to learn new skills and techniques that were then applied to other markets. In the sugar sector, the only difference between the national markets are the unique conditions of each national distribution channel. Each country is due to have its own distinct way of distributing products throughout its economic system. In this respect, international strategies of the sugar companies can be characterised as country specific strategies which force them to understand and to manage a broad range of distribution channels. This precondition can explain the investment of Südzucker in the recent acquisition of ED&F Man, UK.

The ongoing reform of the European sugar regime has led to an acceleration of growth strategies on the European sugar market. The reform has opened up the international competition with non-European sugar imports and it set strong incentives to a further concentration of the leading European sugar companies. It was the aim of the reform to concentrate sugar production and processing in those countries with the most favourable natural and economic conditions, in particular France, The Netherlands, and Germany. The dominating firms in these countries were able to sustain their market position and to expand their international presence by cross-border entry into numerous European markets. The quota system obviously restricts the growth options to only external growth by international merger and acquisitions. Due to the high market transparency and the oligopolistic industry structure expansion and exit strategies of the competitors are early known. For example, in March 2005 the German Nordzucker had discussions with its domestic rival Pfeifer & Langen on their interest in acquiring the Dutch competitor CSM (Cosun); Nordzucker and Südzucker jointly discussed their mutual interest in buying the sugar activities of Danisco, and Südzucker was aware at an early point of time of the interest of Cosun and Pfeifer & Langen in the acquisition of the sugar factory Anklam (see also Bundeskartellamt, 2009). One of the consequences of these specific industry conditions is a quite similar competitive strategy of the leading sugar companies which are subject of this study.

Our analysis demonstrates that in the sugar industry the cooperative type of an international cooperative is more prevalent over the trans-national cooperative type, defined by Bijman/ Pyykkönen/Ollila (2011, p. 5). The four sugar cooperatives acquired foreign companies or cooperatives without integrating the farmers into a cooperative membership system. They still source from foreign farmers, where the farmers are not members of the cooperative. In the sugar industry our results indicate that the cooperatives are operating their international acquisitions like an IOF-type of company with farmer suppliers as investors and not members. All three companies (Cosun, Südzucker, Tereos) did not transfer their common business model to their foreign subsidiaries and they did not integrate their foreign new sugar beet suppliers as cooperative members. At least two reasons are responsible for that: first, all foreign acquisitions of the cooperatives subject to our case study have been non-cooperative companies; so there is no necessity to integrate suppliers as members and relationships are strictly represented by contractual relations. Second, as it has been mentioned in the Cosun case: going international and implementing a different business model compared to the domestic one causes increasing organisation costs with complicating decision making processes. Interesting to note is the fact that Cosun´s subsidiary - the potato branch AVEBE – uses a different participation model and invited their German starch potato growers to become members of the potato starch cooperative.

All four sugar companies are successful operating cooperatives which are in the leading position of their home countries as well as in the European market. The companies owe their post and current success to a unique strategic position involving clear trade-offs. For all four companies analysed internationalisation is the main growth strategy. Due to the past restructuring of the national industries by merger and acquisition activities there are no (for Austria, Germany and The Netherlands) or only a few (for France) opportunities for growth inside the home country. The main reasons determining the internationalisation strategies are the predominance of economies of scale and the liberalisation of the European sugar and world markets in general. Internationalisation allowed the companies to overcome the limits of domestic growth. International expansion was and still is a necessity to further growth because domestic markets were relatively early maturing and no real additional growth rates were available because of the sugar regime.

The process of internationalisation was heavily supported by the specificities of the product and the services. Global or internationalisation strategies are designed to link the firm´s operations in many markets and countries to a system-wide perspective for building and extending competitive advantage. Global strategy seeks to exploit technologically driven sources of leverage. Leverage occurs when the firm can extend and transfer its skills and resources across markets that are independent and mutually reinforcing. The specific characteristics of the sugar market (standardised products, nearly homogeneous taste and preferences of the consumers and the food industry across countries, the need to source products locally because of perishability) enables the leverage process of the companies and promotes the international transfer of technology and business behaviour by acquisition.

## 7. Overall conclusion

The prime focus of this analysis is on sugar cooperative position and international strategy. In this context, cooperative position and strategy are considered to be the ability of cooperatives to successfully find and to develop economic benefits for their farmer members in the sugar supply chain. Consequently, firm specific differences in internationalisation strategies, institutional differences, and member-company relationships were highlighted.

In the sugar industry, producer organisations play an important role not only in supplying the industry with sugar beets but also with respect to the internal governance of the sugar firms and its strategic positioning. In this respect, our analysis identified differences between the cooperatives. Cosun and Tereos are what can be termed traditional cooperatives owned by sugar beet growers, most of them also growing potatoes, cereals and some field vegetables. Royal Cosun is a cooperative with approximately 10,000 members. Tereos acts as a cooperative with 12,000 owner-members. They operate on a contractual basis and the typical rule of one man/ one voice is respected but is weighed in relation to the specific contributions of its member cooperatives. Compared to these two, Südzucker/Agrana AG is a publicly listed company at the stock exchange with a somewhat different business model. Due to historic decisions Südzucker can be characterised as a C-IOF, a cooperative-investor owned firm with the specific character of having the producer cooperative (Süddeutsche Zuckerrübenverwertungs-Genossenschaft eG [SZVG]) as the major shareholder with always trying to keep its majority at the level of +51 % of the shares. SZVg is not the founder of the firm. In all three cases members have direct influence on the policy and strategy of the cooperative through elected representatives who are the members of the Members' Council.

Additional to these conditions, the sugar beet farmers in the four countries had enjoyed substantial productivity gains over previous decades as the sugar beet production developed to a stable and profitable farming business for small and larger family farms. To assure the quality of the sugar beet delivered by its suppliers, the sugar companies provided technical support regarding the best sugar beet strains, soil preparation, and agricultural implements. In addition to technical assistance, the sugar industry maintained a policy of financial incentives for suppliers. While the EU sugar regime established the price ceilings, the sugar beet grower unions affiliated to every sugar company negotiated everyday business matters of remuneration of sugar deliveries and quality premiums, refunding of transportation costs, planting, and harvesting matters of the crop. There are nearly no differences in the attitude of the sugar firms towards their supplier. The sugar companies realised long ago that excellence in the field of sugar production required heavy investments in the farmer/member relationship to become supportive to their businesses. Great emphasis was placed on the staff that was devoted to the advisory service of the farmers. Only good relationships, it was reasoned, could transfer the agronomic and market knowledge. Our findings suggest that there exists a mutually beneficially relationship between sugar growers as members or investors and the sugar firms. It is the cooperative character and the institutional partnership between the producer organisations and sugar companies when it comes to the annual negotiations on sugar prices and the supply conditions.

These findings may find some additional support. Despite all changes in the market conditions (EU sugar regime, competitive sugar substitutes, and increase in sugar imports) all companies continued to invest in sugar production and technology improvement. This demonstrable commitment to their national sugar production encapsulated their unshakable belief in themselves and the national sugar beet production. Having played an instrumental and pivotal role in the development of sugar production in their home countries all four companies trust their competitive advantage of sugar production due to their heritage and tradition in their home market. Although the companies were active across a broad spectrum of product groups, food and non-food industries and countries (except for Cosun who was concentrating its activities mainly in the national Dutch market), sugar production remained the cornerstone of their businesses (Südzucker sugar production share remains at 53 % and Tereos 43 % of total turnover).

After many years of relatively stable market and regulation conditions, the industry as a whole was under tremendous pressure to find ways and competitive strategies as an answer to the upcoming changes of the regulatory bodies. Since the 1990s, the European Union announced and definitely made some important changes of the common sugar regime with special emphasis on sugar prices guaranteed to farmers to come down and of international trade liberalisation. The sugar industry expected the depressive effect on future sugar crops to seriously curtail demand for sugar beets in non-favourable regions in Europe and sugar cane imports from Brazil and the Caribbean would flood the market. The sugar industry reacted in different ways on these challenges:

- Consolidation of sugar production capacities by merger and acquisition in the domestic market (heavy merger activities by Südzucker and Tereos within the German resp. the French sugar sector).
- Diversification of sugar processing activities and investments in sugar related value creation (ingredient processing, production of sugar substitutes) and in the extension of scope activities by investing in food activities (Südzucker and Tereos). Except for Cosun, that was concentrating on the core business of sugar production and processing. Südzucker and Tereos invested in the several stages of the food chain.
- Internationalisation of their activities in foreign sugar industries (Südzucker in neighbouring countries, like Belgium, France, Austria, Poland and Tereos in the Czech Republic

The reforms of the sugar regime had an enormous impact on the restructuring of the sugar industry and the companies' strategy. In recent years, Cosun re-defined their strategy, focusing on sugar production and large-scaled processing and adding value to vegetable raw and residual materials. As a consequence, Cosun sold business activities that were too far down in the chain. Südzucker and Tereos took different strategic decisions. They decided to invest in diversified business segments and getting successfully access to different product markets (e. g. processed food, food ingredients, bio-energy) driving the whole production process. The Südzucker and the Tereos group grew through horizontal and vertical diversification and integration. Tereos combines vertical integration and diversification strategies, insisting on this all the more ever since the implementation of the EU sugar regime reform. The development logic at work is based on controlling the whole process from A to Z for sugar beet, sugar cane, cereals (wheat, maize, potatoes, and manioc). That is why the group has agreed to create more place to the transformation of cereals, via its subsidiary Syral. The group has also diversified into starch-based products by acquiring 5 factories from the British Tate & Lyle group.

The past changes and the ongoing reform of the European sugar regime have led to an acceleration of growth strategies on the European sugar market. The changes have opened up the international competition with non-European sugar imports and it set strong incentives to a further concentration of the leading European sugar companies. It was the aim of the reform to concentrate sugar production and processing in those countries with the most favourable natural and economic conditions, in particular France, The Netherlands, and Germany. The dominating firms in these countries were able to sustain their market position and to expand their international presence by cross-border entry into numerous European markets. The quota system obviously restricts the growth options to only external growth by international merger and acquisitions.

A number of industry-driven factors have prompted the two companies Südzucker and Tereos to develop an international strategy. These factors include growing homogeneity of demand, rising economies of scale, increasing technology intensity of new products, the pressure to amortise high costs of R&D, and to proprietary investments into critical value–adding activities by diversification, like food product production, food ingredients, etc. These industry drivers oblige the companies to compete along a highly standardised and consistent manner across different markets. Domestic and foreign markets the companies entered are highly interdependent and mutually supporting as far as sugar beet farming, sugar production, and marketing is concerned. Transfer of knowledge in these functions was easily possible which created a high level of internal cohesion and consistency. Key to pursuing an international strategy was the integrative view of building and extending their sources of competitive advantage. Both firms, Südzucker and Tereos, which were undertaking an international strategy, viewed each market in which they were competing as a platform to learn new skills and techniques that were then applied to other markets. This strategy also helped the firms to extend their distinctive competences to build leverage across markets. Going international, Cosun, Südzucker/Agrana, and Terreos did not apply their cooperative or semi-cooperative business model for the sugar beet growers in the new countries. They were considering the acquired companies as an additional business unit which implied a purely contractual relationship between the main company and the subsidiary growers.

Summarising the information we got from the analysis, cooperatives in line with the support of market regulations can contribute to a stable and continuous production, processing, distribution and marketing of food and non-food products and services, to a (more) stable income of farmers. The likelihood to support cooperatives´ investment policy by providing equity will increase if a more profit oriented firm organisation can be installed. This governance structure than would necessarily deviate from the traditional cooperative model. The high cost of integrating foreign sugar beet suppliers into a cooperative membership system prevent the analysed sugar cooperatives from choosing the cooperative business model when they were acquiring their foreign subsidiaries.

## References:


Bijman, J., G. Hendrikse (2003): Co-operatives in chains: institutional restructuring in the Dutch fruit and vegetables industry. Journal on Chains and Network Science, 3, 95-107.

Bijman, J. (2005): Network and hierarchy in Dutch co-operatives: a critical analysis. International Journal of Co-operative Management, 2**,** 16-24.

Bijman, J., G. van der Sangen, K. Poppe, B. Doorneweert, R. Soboh (2011): Support for farmers' cooperatives in The Netherlands, country report.

Bijman, J., P. Pyykkönen, P. Ollila (2011): "An EU wide analysis of transnational cooperatives", EU-synthesis report, Project: Support for farmers´ cooperatives.

Buckley, P. J., P. N. Ghauri (2004): Globalisation, economic geography and strategy of multinational enterprises, Journal of International Business Studies, 35 (2), 81-98.

Bundeskartellamt (2002): Beschluß vom 24.6.2002, B2-31/02, S. 7 f – Nordzucker/Union-Zucker; KG, WuW/E-DE-R, 816 – Nordzucker/Union-Zucker; BKartA, Beschluß vom 18.3.1999, B2-91/98, S. 7 – Nordzucker.

Bundeskartellamt (2006): 03. August 2006, B2-90/05, Pfeifer & Langen KG/Jülich AG.

Bundeskartellamt (2009): 17. February 2009, B 2 – 46/08, Nordzucker AG/Danisco Sugar A/S, 71p.

Cadogan, J. W., A. Diamantopoulos, C. P. De Mortange (1999): A measure of export market orientation: Scale development and cross-cultural validation, Journal of International Business Studies 30(4) 689-707.

Carrillat, F. A., F. Jaramillo, W. B. Locander (2004): Market diving organizations: A framework, Academy of Marketing Science Review 4, 1-14.

Chaddad, F.R., and M.L. Cook (2004): "Understanding new cooperative models: An ownership-control rights typology." Review of Agricultural Economics 26(3):348-360.

Christensen, C. M., J. L. Bower (1996): Customer power, strategic investment, and the failure leading firms, Strategic Management Journal, 17(3), 197-218.

Coop de France (2010): Poids économique et social 2010 de la coopération agricole et agroalimentaire française, Observatoire économique Coop de France, novembre, 43p.

Day, G. S. (1994): The capabilities of market driven organizations, Journal of marketing, 58(4), 37-53.

De Bont (2012): 'Support for farmers' cooperatives in the European Union'. Case study on hybrid structures in Belgium and The Netherlands. In preparation.

De Bont, C.J.A.M. and A.B. Smit (2011): Sector Report "Support for farmers' cooperatives in the sugar sector", LEI, Wageningen University and Research Centre.

Energie et ressources naturelles (2008): la communication des groupes pétroliers sur leur diversification vers les énergies alternatives, octobre 2008, cabinet KPMG.

ENERS energy concept (2012): «Les principaux acteurs des filières biodiesel et bioéthanol dans l'UE», [en ligne], http://www.plateforme-biocarburants.ch/infos/eu-acteurs.php, consultée le 20/02/2012.

Enerzine (2011): «Deinove confirme la délivrance de son brevet EP2016183», [en ligne], http://www.enerzine.com/6/12056+deinove-confirme-la-delivrance-de-son-brevet-ep2016183+.html, consultée le 19/02/2012.

Eurogroup (2010): Quelles stratégies d'alliances et quel développement international pour les groupes coopératifs ?, décembre, 93p.

Eurostaff, 2011, Les stratégies des coopératives agricoles européennes à l'international, Décembre, 128 p.

Filippi M., O. Frey, P. Triboulet, J. Vivensang (2006): Bilan des lois de 1991 et de 1992 et gouvernance des groupes coopératifs, Rapport final, Etude pour le Ministère de l'Agriculture et de la Pêche, n° 03 B6 0401-A, décembre, 109p. et Annexes, 79p.

Fulton, M., and B. Hueth (eds) (2009):Cooperative Conversions, Failures and Restructurings: Case Studies and Lessons from U.S. and Canadian Agriculture. University of Saskatchewan, Canada: Centre for the Study of Co-operatives / University of Wisconsin, USA: Center for Cooperatives. (at: www.kis.usask.ca/COOPSBOOK/CoopConversions_Book_Sep09.pdf).

Gauri, P. N., V. Tarnoarnovskaya, U. Elg (2008):Market driving multinationals and their global sourcing network, International Marketing Review, 25(5), 504-519.

Harris, L. C., K. Y. Cai (2002): Exploring market driving: A case study of De Beers in China, Journal of Market-Focused Management, 5(3), 171-196.

Hind, A., M. (1999): Co-operative Life Cycle and Goals. Journal of Agricultural Economics, 50, 536-548.

Hofstede, G., Hofstede, G. J., M. Minkov (2010): Cultures and organizations : software of the mind : intercultural cooperation and its importance for survival, New York, N.Y. [etc.], McGraw-Hill.

Jaworski, B., A. K. Kohli (1993): Market orientation: Antecedents and consequences, Journal of Marketing, 57(3), 53-70.

Jaworski, B., A.K. Kohli, A. Sahay (2000): Market driven versus driving markets, Journal of the Academy of Marketing Science, 28(1), 45-54.

Jensen, M. C. , W. H. Meckling (1976): Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3, 305-360.

Kölbl, T. (2011): Presentation of Südzucker Group, DZ-Bank Frankfurt Conference, November 14-15, 2011, (Homepage Südzucker, 20.04.2012).

Kotbi G. and Sauvée L., (2010). La place du territoire dans les choix stratégiques des groupes sucriers français : enjeux et perspectives du changement institution et concurrentiel, ASRDLF, Aoste, Sept. 23p.

Kumar, N. (1997):The revolution of retailing: from market driven to market driving, Long Range Planning, 30(6), 830-835.

Kumar, N., L. Scheer, P. Koder (2000): From market driven to market driving, European Management Journal, 18(2), 129-142.

Lebensmittelzeitung (2012): Top 9 Zuckerhersteller in Europa 2011. Online unter: http://www.lebensmittelzeitung.net/business/lieferanten/rankings/pages/Top-9-Zuckerhersteller-Europa_193.html (14.02.2012).

Lex.europa.eu (2012): «Décision de la Commission du 18 décembre 1996 relative aux exonérations fiscales pour les biocarburants en France» [en ligne], http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31997D0542:FR:HTML, consulté le 21/01/2012.

Mauget R. et Frey O. (2011): Les stratégies des coopératives agricoles européennes à l'international - Quelles perspectives à l'horizon 2015?, Eurostaf, décembre 128p.

Menard, C. (2011): Plural Forms of Organization: Where Do We Stand? Keynote Address to the 5th International Conference on Economics and Management of Networks (EMNet), 1-3 December 2011, Limassol, Cyprus.

Morin H, «Les marchés des biocarburants», [en ligne], http://www.valbiom.be/files/gallery/hmorin1213270957.pdf, page consultée le 16/02/2012.

Narver, J. C., S. F. Slater (1990): The effect of a market orientation on business profitability, Journal of Marketing, 54(4), 20-35.

Narver, J. C., S. F. Slater, D. L. MacLachlan (2004): Responsive and proactive market orientation and new product success, The Journal of Product Innovation Management, 21(5), 334-347.

Nillson, J. (1999):"Co-operative Organisational Models as Reflections of the Business Environments." Finnish Journal of Business Economics 4: 449-470.

Lorne D, Chabrelie MF. (2011): «Les nouvelles technologies de production de biocarburants: état des lieux et enjeux des filières en développement», [en ligne], http://www.ifpenergiesnouvelles.fr , consultée le 19/02/2012.

North, D. C. (1990): Institutions, institutional change and economic performance, Cambridge, UK, and New York, Cambridge University Press.

Nunes A, «Lettre de veille no. 14», [en ligne], www.inra.fr/arpvega/content/download/.../lettre+novembre+09.pdf, consultée le 19/02/2012.

Pohl, M. (2001): Die Geschichte der Südzucker AG 1926 – 2001, Piper Verlag.

Rabobank, (2011). New realities for the EU Sugar Industry, future scenarios and their implications, Note 287, 6p.

Rapport sur l'industrie des énergies décarbonnées (2010): Ministère de l'Ecologie, du Développement durable, des Transports et du Logement.

Slater, S. F., J. C. Narver (1995): Market orientation and the learning organization, Journal of Marketing, 59(3), 63-74.

Slater, S. F., J. C. Narver (1998): Customer-led and market-oriented: Let`s not confuse the two, Strategic Management Journal, 19, 1001-1006.

Smit, A.B. and C.J.A.M. de Bont (2011): Sugar quotas: yes or no? Economic consequences for sector, chain, international market situation and third world, Management summary about the possible abolishment of the sugar quota system after September 2015, Den Haag, LEI-report 2011-065.

Smith, R. (2012): Boerderij Vandaag, 26 April 2012.

SØgaard, V. (1994): Power-dependence relations in federative organizations. Annals in Public and Cooperative Economy, 65, 103-125.

SoluMonde (2012), «Les pays africains et les biocarburants», [en ligne] http://solumonde.ivoire-blog.com/archive/2010/02/13/les-pays-africains-et-les-biocarburants.html, (13. février 2012), page consultée le 16/02/2012.

Südzucker (2012): Shareholder structure. http://www.suedzucker.de/en/Investor-Relations/Aktie/Anlegerstruktur/ (14.02.2012).

SZVG (2012): Personal communication F. Zeller, CEO of the Süddeutsche Zuckerrübenverwertungs-Genossenschaft e.G. (South German Sugar Cooperative), Ochsenfurt, April 2012.

Tan, D. (2009): Foreign market entry strategies and post-entry growth: Acquisitions vs. Greenfield investments, Journal of International Business Studies, 40 (6), 1046-1063.

Tan, D. and J. T. Mahoney (2006): Why a multinational firm chooses expatriates: Integrating resource-based, agency and transaction cost perspectives, Journal of Management Studies 43(3), 457-484.

Tereos (2011): Annual Report 2010 (52pp) and 2008/2009, (48pp).

Tereos (2011): Reference Form 2010-2011, Tereos International SA, 31th March, 478p.

Tereos website (2012). March and April 2012.

TopAgrar (2011):"Nordzucker 1:1 in das Südzucker Modell umwandeln!", German farmers journal, 4.7.2011.

Tuominen, M., A. Rajala, K. Möller(2004): Market driving versus market driven: Divergent roles of market orientation in business relationships, Industrial Marketing Management, 33(3), 207-217.

Watanabe, K., Bijman, J., M. Slingerland (2012): Institutional arrangements in the emerging biodiesel industry: Case studies from Minas Gerais—Brazil. Energy Policy, 40, 381-389.

Williamson, O. E. (1985): The Economic Institutions of Capitalism. Firms, Markets, Relational Contracting, New York, Free Press.

Van Dyck (2012): personal interview, April 10 in Paris, completed May 10, 2012.

Various Press Articles on Tereos strategy, Confédération Générale des planteurs de Betteraves, (www.cgb-france.fr).

Verband der Hessisch-Pfälzischen Zuckerrübenanbauer e.V., 100 Jahre gemeinsam erfolgreich für Rübe und Zucker, 1911 – 2011, Worms, September 2011.

Verband (2012): Personal communication M. Menz, CEO of the Verband Wetterauer Zuckerrübenanbauer e.V. (Union of sugar beet producer in the region of Wetterau), Friedrichsdorf, April 2012.

Vereinigung der Österreichischen Rübenbauernorganisationen (2012). (Source: http://www.voer.at/uebersicht/entwicklung, (28.03.2012).

Wirtschaftliche Vereinigung Zucker e.V. (2012): Zuckermarkt. http://www.zuckerverbaende.de/zuckermarkt/zahlen-und-fakten/zuckermarkt-deutschland/zuckermarkt.html (14.02.2012).

Zeller, F., W. Gehlert (o. J.): 50 Jahre Süddeutsche Zuckerrübenverwertungs-Genossenschaft e.G., Zur Geschichte der bäuerlichen Beteiligung in der süddeutschen Zuckerwirtschaft, Wertheim.

Zylberstain, D. (1996): Governance structures and agribusiness coordination: a transaction cost economics based approach. In: Goldberg, R. (Ed.), Research in Domestic and International Agribusiness Management, Havard University, JAI Press, pp. 245–310.

## Exhibit 1:

**Market shares of most important sugar suppliers in the German (2007/08)**

| Market share based on sugar supplied (in %) | |
|---|---|
| Nordzucker | 25 – 30 |
| Südzucker | 25 – 30 |
| Pfeifer & Langen | 20 – 25 |
| Danisco (today Cosun (subsidiary of Suiker Unie)) | 5 – 10 |
| IHU (Industrie- u. Handelsunion Boettger GmbH & Co. KG, Berlin) | 5 – 10 |
| C.K. Sugar & Fruit | 0 – 5 |
| Winter GmbH | 0 – 5 |
| Tereos | 5 – 10 |
| Cosun | 0 – 5 |
| Imports from Poland | 0 – 5 |
| Other sugar trader and importer | 0 – 5 |
| Total | 100 |

Source: Bundeskartellamt 2009 B 2 –- 46/08 Nordzucker AG/Danisco Sugar A/S, Kopenhagen/Dänemark, p. 76.

## Exhibit 2:

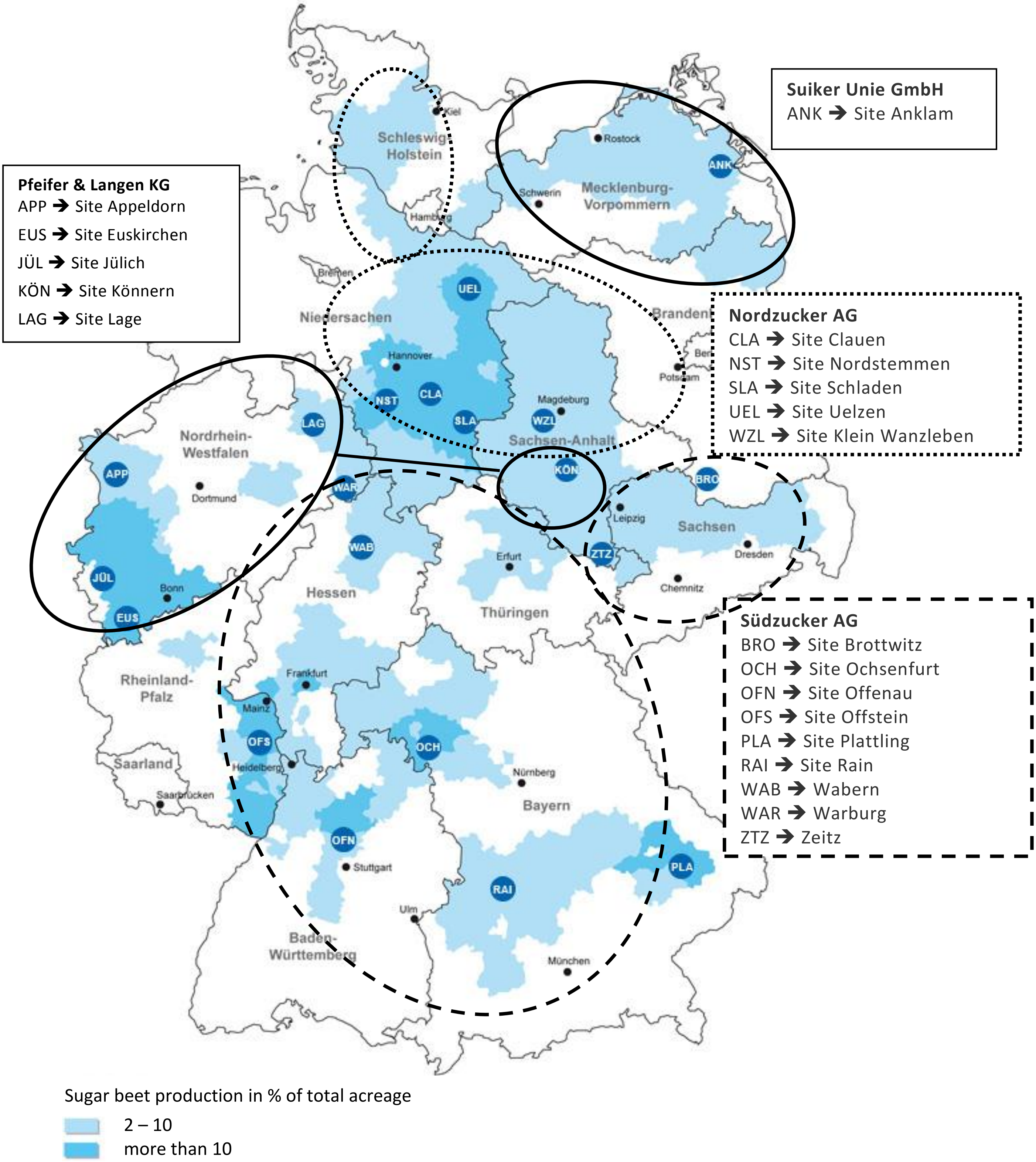
**Sugar producers in Europe (Market share based on production quotas)**

| | Company | Place of business | Market share in percent |
|---|---|---|---|
| 1 | Südzucker-Group | Mannheim, Germany | 24,8 |
| 2 | Nordzucker | Braunschweig, Germany | 15,4 |
| 3 | Associated British Foods (British Sugar) | London, UK | 12,1 |
| 4 | Tereos | Lilie, France | 11,7 |
| 5 | Royal Cosun | Breda, Netherlands | 7,0 |
| 6 | Pfeifer & Langen | Köln, Germany | 6,6 |
| 7 | Cristal Union | France | 4,5 |
| 8 | Polski Cukier | Torun, Poland | 4,2 |
| 9 | Société Vermandoise de Sucreries | Vilette-Sur-Aube, France | 3,2 |

Source: Own representation based on Lebensmittelzeitung (2012) according to Nordzucker (2011)

## Exhibit 3:

### Sugar beet production and sugar production sites (Germany 2012)




Source: Wirtschaftliche Vereinigung Zucker (WVZ) (http://www.zuckerverbaende.de/zuckermarkt/zahlen-und-fakten/zuckermarkt-deutschland/standorte.html), Numbers and Facts, 2012 with own addition.

## Exhibit 4:

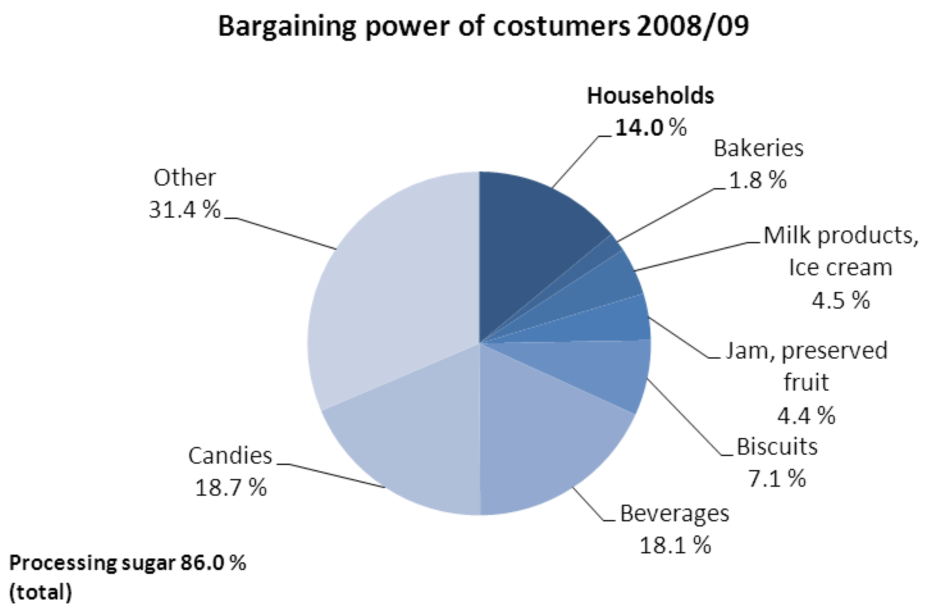
**Sugar beet production and sugar production In Germany form 2008 to 2011.**

| | 2008/09 | 2009/10 | 2010/11 |
|---|---|---|---|
| Acreage in ha | 363 834 | 364 207 | 344 820 |
| Number of sugar beet growers | 34 436 | 33 256 | 32 542 |
| Average acreage per grower in ha | 10.6 | 11.0 | 10.6 |
| Sugar beet deliveries in t | 23 002 583 | 25 919 041 | 22 441 432 |
| Average yield in t/ha | 63.2 | 71.2 | 65.1 |
| Sugar content in % | 18.0 | 18.2 | 17.3 |
| Sugar yield in t/ha | 10.0 | 11.6 | 10.0 |
| Total sugar production in t of white sugar | 3 654 836 | 4 232 290 | 3 442 683 |

Source: Wirtschaftliche Vereinigung Zucker (WVZ) (http://www.zuckerverbaende.de/zuckermarkt/zahlen-und-fakten/zuckermarkt-deutschland/standorte.html), Numbers and Facts, 2012.

## Exhibit 5:

**Bargaining power of costumers**




Source: Wirtschaftliche Vereinigung Zucker e.V. (2012)

## Exhibit 6:

**Südzucker AG: Historic development and companies` domestic and international strategic perspectives**

| | |
|---|---|
| **1837** | Founding of first sugar company in Waghäusel (Baden-Wuerttemberg) |
| **1926** | **Economies of Scale:** 1. Merger - Süddeutsche Zucker-AG, Mannheim (Merger of 5 sugar companies that had formerly been associated through a syndicate). The merger enabled southern Germany's sugar industry to solve the problems arising from overproduction and the worldwide economic crisis. |
| **1950** | Foundation of sugar producer cooperative Süddeutsche Zuckerrübenverwertungs-Genossenschaft e.G. (SZVG) |
| **1951** | Establishment of sugar factory Franken GmbH (Ltd.) in Ochsenfurt (51% of the shares hold by SZVG and 49% by Südzucker AG) |
| **1988** | **Economies of Scale:** 2. Merger - Südzucker AG Mannheim/Ochsenfurt with sugar factory Franken GmbH (Ltd.). SZVG had 75% of the joint stock of Frankenzucker and between 1955 and 1988 it could increase its share capital in Südzucker AG from 6.6% up to 49.9%. Together with the shares of some cooperative banks (e.g. DG Bank; today DZ-Bank) succeeded in a majority of farmers` interests in Südzucker AG. With this merger SZVG started with a share of 61.3% of Südzucker`s nominal capital. |
| **1989** | **Extending geographical boundaries:** Investment in AGRANA Beteiligungs-AG, Wien (to serve the Austrian and Hungarian sugar and starch markets) and in Refinery Tirlemontoise S.A., Brussels |
| **1991** | Foundation of Südzucker GmbH, Zeitz |
| **1995** | **Economies of Scope:** Formation of Schöller Holding GmbH & Co. KG, Nuremberg |
| **1996** | **Economies of Scope:** Acquisition of majority stake at Freiberger, Berlin (Pizza producer) |
| **1996** | **Extending geographical boundaries:** Investment into the Polish sugar industry |
| **1998** | Increase of capital stock in Freiberger up to majority interests of 100 % |
| **1998** | **Extending geographical boundaries:** Investment into the Moldavian sugar industry |
| **2000** | **Economies of Scope:** Palatinit, orafti, starch contribute 0.5 Bill. EUR to total turnover |
| **2001** | **Extending geographical boundaries:** Acquisition of Saint Louis Sucre, Paris; |
| **2001** | Divesture of Schöller (icecream), Nuremberg |
| **2003** | **Extending geographical boundaries:** Acquisition of 14 Silesian sugar mills, SSC |
| **2003** | **Economies of Scope:** Acquisition of Stateside Group (GB) [frozen pizza];<br>**Economies of Scope:** Investment into the fruit division of AGRANA (fruit juce concentrates, fruit preparations) |

**Exhibit 6 (continued):**

| | |
|---|---|
| **2004** | **Economies of Scale:** World wide expansion of the fruit division. AGRANA began the process of acquiring the French Atys Group (completed in 2005). The German Wink Group was also purchased that year. Atys is the world's leading fruit preparation company and sells to the converting industry. Wink is an important manufacturer of fruit juice concentrates in the European market |
| **2005** | **Economies of Scope:** Start of bioethanol production in Zeitz (Germany) |
| **2006** | **Economies of Scope:** BENEO-Orafti built a 52,000 tonnes-per-year production plant for Inulin in Chile |
| **2006** | Stock market launch of Südzucker-subsidiary CropEnergies AG (bioethanol) |
| **2006** | **Economies of Scale:** European wide expansion of bioethanol activites in order to strengthen its leading position in Europe. Südzucker Group will expand its production capacity to some one million cubic meters. The production plant in the Pischelsdorf, Austria, is already complete, and the capacity of the bioethanol plant in Zeitz has been expanded to 360,000 $m^3$ annually. In addition, a plant with an annual capacity of up to 300,000 $m^3$ will be built at the Wanze sugar mill in Belgium, the existing Hungarian facility will be expanded from 60,000 $m^3$ to 160,000 $m^3$ and the capacity in France will be increased to 100,000 $m^3$. |
| **2006** | **Economies of Scope:** First joint venture with a leading apple-juice concentrate producer in China |
| **2007** | **Extending geographical boundaries:** Start of production fruit preparation factory Brazil |
| **2007** | Formerly independently operating companies Palatinit, Orafti and Remy merged to BENEO Group (jointly marketing of food ingredients for functional food world market). |
| **2008** | **Economies of Scale:** Plant in Zeitz expands production capacity of bioethanol to 360,000 $m^3$ per year; Bioethanol plants in Wanze/Belgium (annual capacity of 300,000 $m^3$) and plant in Pischelsdorf/Austria (annual capacity of 240,000 $m^3$) start production |
| **2008** | **Extending geographical boundaries:** Contracting with Mauritius (400,000 t sugar); Desinvestment of two production sites in Germany (Regensburg, Groß-Gerau) |
| **2010** | **Extending geographical boundaries:** New pizza factory starts up in Westhoughton, UK<br>$CO_2$ production facility starts up in Zeitz, Germany |

Source: Südzucker Annual Report, 2011; Pohl, 2001; Zeller/Gehlert, 2000; press releases, and own comments.

## Exhibit 7:

**Agrana: Historic development and companies` domestic and international strategic perspectives**

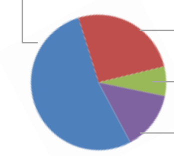
| | |
|---|---|
| 1988 | AGRANA Beteiligungs-Aktiengesellschaft is set up to act as the umbrella for the merged Austrian sugar and starch industries; the company operates the three sugar factories in Hohenau, Leopoldsdorf and Tulln, the potato starch factory in Gmünd as well as the maize starch factory in Aschach |
| 1989 | Strategic alliance entered into with Germany's Südzucker AG Mannheim / Ochsenfurt: 10% of Agrana`s shares were swapped with 2.5% of Südzucker`s shares. |
| 1990 | Entry into the Hungarian sugar industry and acquisition of a stake in Hungary's Hungrana maize starch and isoglucose factory |
| 1991 | Stock-exchange launch: 1,500,000 preference shares are listed in the Vienna stock exchange's B-Segment |
| 1993 | Südzucker increased its share at the Agrana Beteiligungs-AG up to 50%. At the same time Agrana increased its stocks in Südzucker and one Agrana Director became member of board of directors in Südzucker. |
| 1994 | Entry into the Czech market: takeover of one sugar factory in Hrušovany |
| 1996 | Expansion of interests in Hungary: acquisition of Magyar Cukor AG |
| 1998 | Acquisition of stakes in 4 sugar factories in Romania and 2 sugar factories in Slovakia<br>Acquisition of 2 more sugar factories in the Czech Republic |
| 2001 | Purchase of a maize starch factory Tandarei |
| 2003 | Development of the group's third segment fruit with it's operating units Agrana juice and fruit<br>Complete takeover of Denmark's Vallø Saft A/S and acquisition of an initial stake in Austria's Steirerobst AG (fruit sector) |
| 2004 | Start of the four-stage acquisition of France's Atys Group (world's leader in fruit preparations)<br>Acquisition of Belgium's Dirafrost (frozen fruit specialities)<br>Acquisition of Germany's Wink Group (fruit juice concentrates). |
| 2005 | Capital increase to raise additional funds for the continued pursuit of Agrana's growth strategy<br>Decision for the construction of a bioethanol plant<br>Acquisition of DSF-Deutsch-Schweizerische Früchteverarbeitung GmbH based in Constance, Germany<br>Agrana opens the new fruit preparation plant in Serpuchov (South of Moscow) |

**Exhibit 7 (continued):**

| | |
|---|---|
| 2006 | • The reform of the Sugar Central Market Organisation forces AGRANA to rationalize operations; affected by this rationalization process are the plants in Hohenau \| Austria and Rimavska Sobota \| Slovakia<br>• AGRANA acquires 100 % stake of Steirerobst<br>• AGRANA establishes a raw sugar refinery in Brcko \| Bosnia Herzegovina jointly with the Bosnian-Austrian company SCO Studen & Co Holding \| Vienna as 50 % partner<br>• AGRANA acquires a 50 % stake in concentrates manufacturer Xianyang Andre Juice Co. Ltd; the company is located in the province Shaanxi \| China<br>• AGRANA decided to establish a sales joint venture together with the Bulgarian sugar producer Zaharni Zavodi AD; AGRANA holds a stake of 51 % |
| 2007 | • AGRANA starts operations at new fruit preparations plant in Cabreuva \| Brazil.<br>• Start of pilot operations at the new bioethanol plant in Pischelsdorf \| Lower Austria. |
| 2008 | • AGRANA starts second joint venture for apple juice concentrate in Yongji \| Shanxi province \| China<br>• Start of operations at the bioethanol plant in Pischelsdorf \| Lower Austria<br>• Commissioning of raw sugar refinery in Brcko \| Bosnia and Herzegovina<br>• Capacity increase at Hungrana's isoglucose and bioethanol plant<br>• AGRANA gründet ein zweites Apfelsaftkonzentrats-Joint Venture mit Xianyang Andre Juice Co. Ltd. in Yongji \| Provinz Shanxi \| China |
| 2010 | AGRANA expands its presence in the Middle East and Africa (MEA) with a joint-venture in fruit preparation in Egypt in addition to existing facilities in Turkey and South Africa. |
| 2011 | • Acquisition of 100 % of the shares of Xiangyang Andre Juice Co., Ltd. and the divestment of 50 % of Yongji Andre Juice Co., Ltd.<br>• AGRANA opens a production plant for fruit preparations in Johannesburg\|South Africa<br>• AGRANA inaugurates the second-largest sugar silo in Europe at its sugar factory in Tulln |

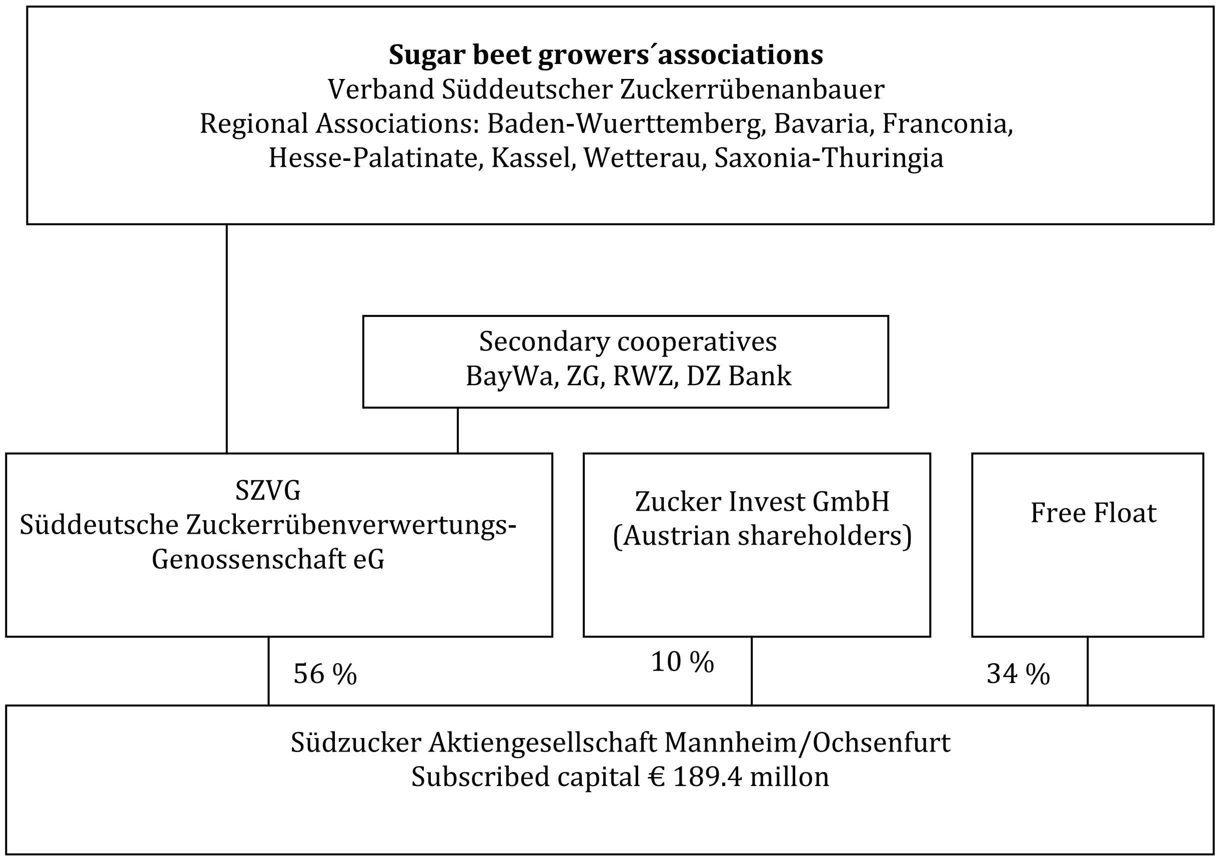
Source: Homepage AGRANA

**Exhibit 8: Revenue by segments 2010/11 and 2009/10**

| Revenue by segments 2010/11 and 2009/10 | | | | |
|---|---|---|---|---|
| Revenues | % | € million | 2010/11 | 2009/10 |
| | 53 | Sugar segment | 3,279 | 3,154 |
|  | 26 | Special products segment | 1,575 | 1,396 |
| | 7 | CropEnergies segment | 437 | 362 |
| | 14 | Fruit segment | 870 | 806 |
| | | **Group** | 6,161 | 5,718 |

Source: Own graph based on Südzucker AG (2012)

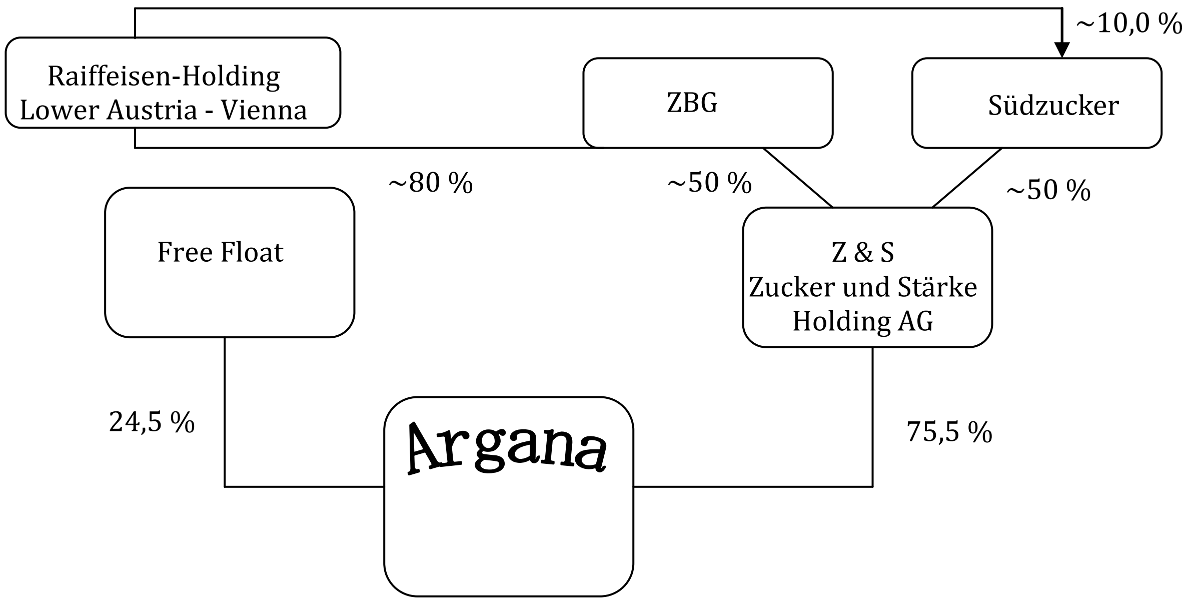
**Exhibit 9: Shareholder Structure of Südzucker AG**




Status at: 28 Feb. 2011

## Exhibit 10: Shareholder structure of Agrana

Shares outstanding: 14,202,40
Market capitalisation (as of 31 December 2011): € 1,136.2 million



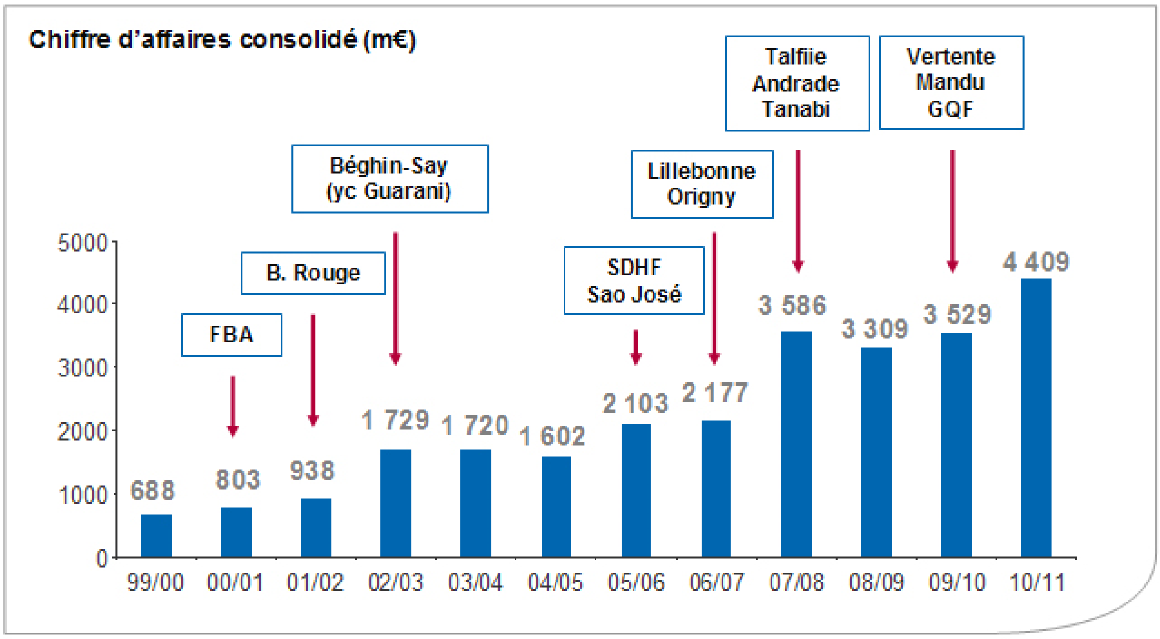

Source: Annual Report 2011

## Exhibit 11:

**Principaux faits marquants**

| | |
|---|---|
| **1997** | - SDA acquired 67% of the leading Czech sugar plant holding |
| **2000** | - SDA set up its first wheat starch plant<br>- SDA created Franco Brasileira de Açucar to set up in Brazil with the Brazilian Cosan and the French trader, Sucres et Denrées. |
| **2001** | - SDA took a majority participation in the Sugar-Making activities of Groupe Bourbon in the Réunion |
| **2003** | - SDA retooke the majority of Béghin Say's assets |
| **2004** | - SDA/Béghin Say became Tereos<br>- Tereos acquired the Société d'Ethanol de Synthèse (Sodes), one of the principal European producers of synthetic alcohol |
| **2005** | - Tereos acquired a new sugar distillery in Brazil |
| **2006** | - Tereos merged with SDHF<br>- Tereos set up in Mozambique by taking 50% of the Marromeu sugar plant<br>- Creation of the BENP Lillebonne with Agralys and Epis-Centre Cooperatives<br>- Inauguration of the Tereos distillery, the biggest in the world for alcohol from sugar beet<br>- Tereos become the majority shareholder in Syral |
| **2007** | - 500 million euros bonds emitted by Tereos<br>- Tereos bought 5 starch plant from Tate & Lyle<br>- Tereos acquired the Marconnelle factory<br>- Tereos sold its 6.2% participation in Cosan<br>- Tereos gained 262 million euros by introducing a part of its Brazilian subsidiary Guarani, on to the São Paulo stock exchange |

**Exhibit 12:**




**Résultats consolidés**

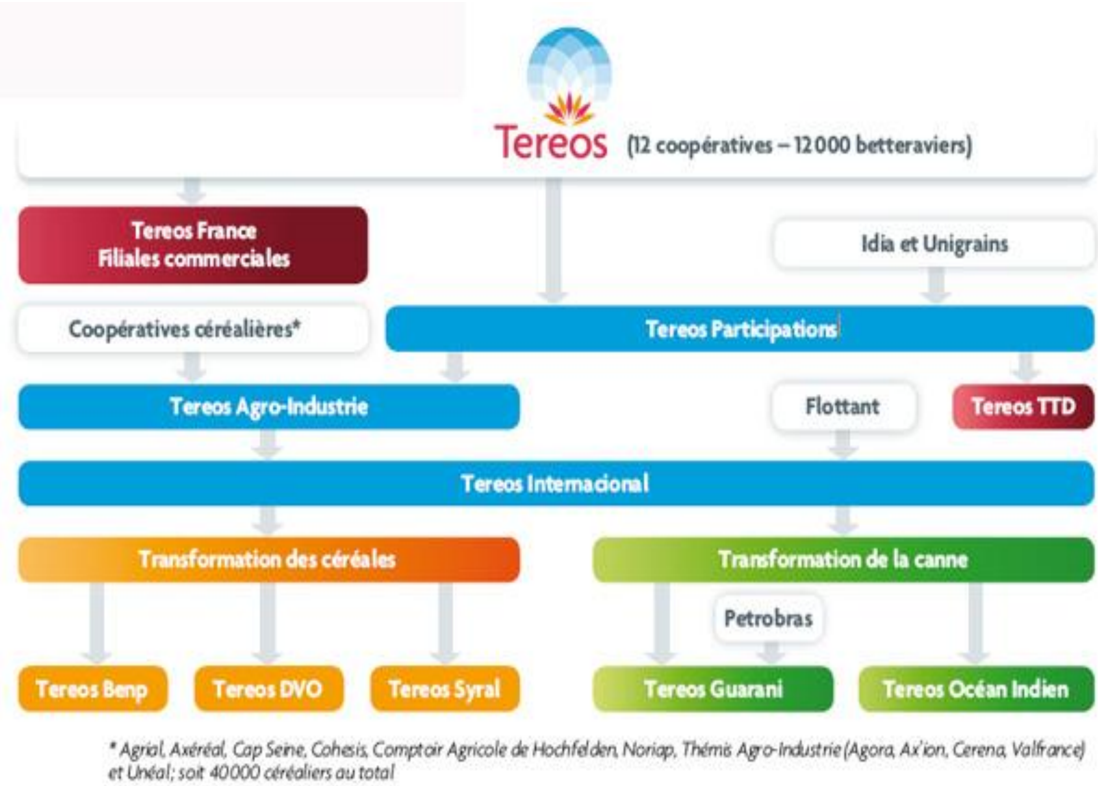
| Million € | 2009/10 | 2010/11 | Variation |
|---|---|---|---|
| Chiffre d'affaires | 3 529 | 4 409 | + 24,9 % |
| EBITDA ajusté | 596 | 752 | + 26,3 % |
| *Taux de marge* | *16,9 %* | *17 %* | *+ 0,1 point* |
| Résultat net | 150 | 237 | + 98,3 % |
| *Taux de marge* | *4,3 %* | *5,4 %* | *+ 1 point* |
| Dette nette | 1 901 | 2 003 | + 5,4 % |

**Bilan Tereos**

| Million € | 2009/10 | 2010/11 |
|---|---|---|
| Capitaux employés | 4 081 | 4 299 |
| *Dont stocks* | *576* | *698* |
| Capitaux propres | 2 180 | 2 296 |
| Dette nette | 1 901 | 2 003 |
| Ratio Dette nette sur Capitaux Propres | 0,91 | 0,87 |

Source : website Tereos, 2012,

## Exhibit 13:


Tereos (12 coopératives – 12 000 betteraviers)
Tereos France
Filiales commerciales
Idia et Unigrains
Coopératives céréalières*
Tereos Participations
Tereos Agro-Industrie
Flottant
Tereos TTD
Tereos Internacional
Transformation des céréales
Transformation de la canne
Petrobras
Tereos Benp
Tereos DVO
Tereos Syral
Tereos Guarani
Tereos Océan Indien
* Agrial, Axéréal, Cap Seine, Cohesis, Comptoir Agricole de Hochfelden, Noriap, Thémis Agro-Industrie (Agora, Ax'ion, Cerena, Valfrance) et Unéal; soit 40000 céréaliers au total

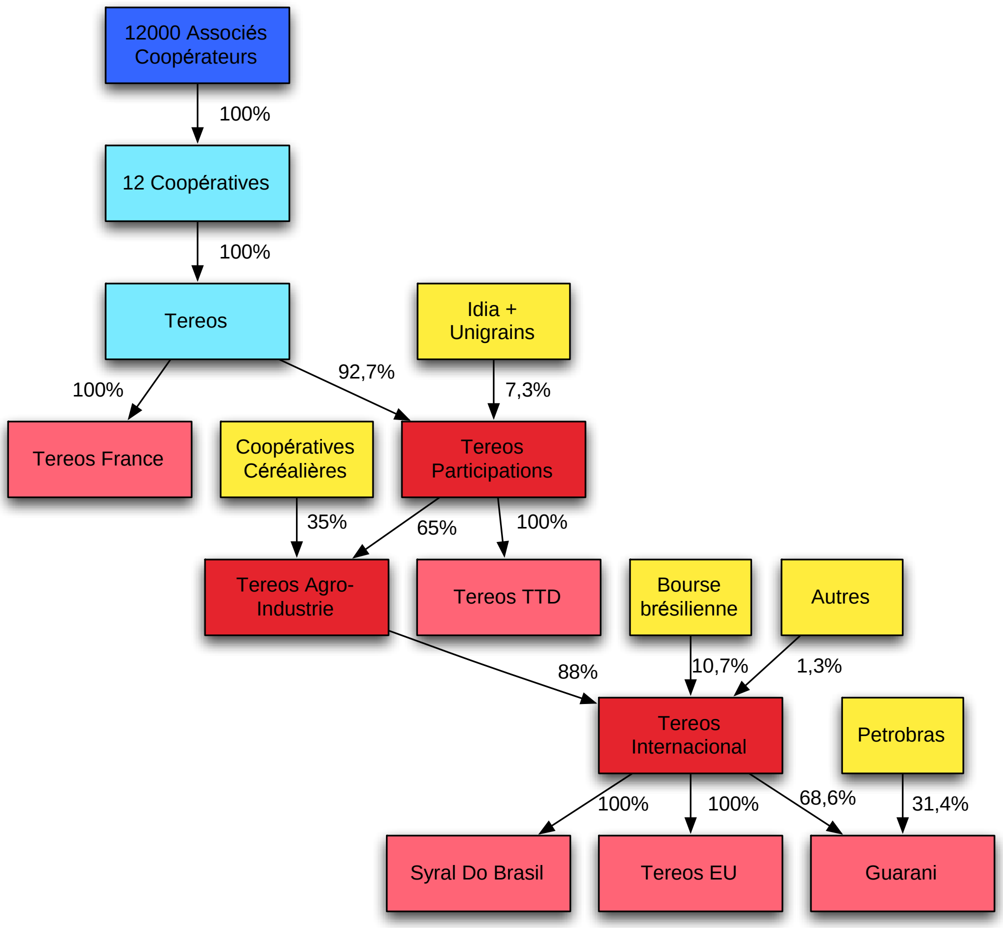
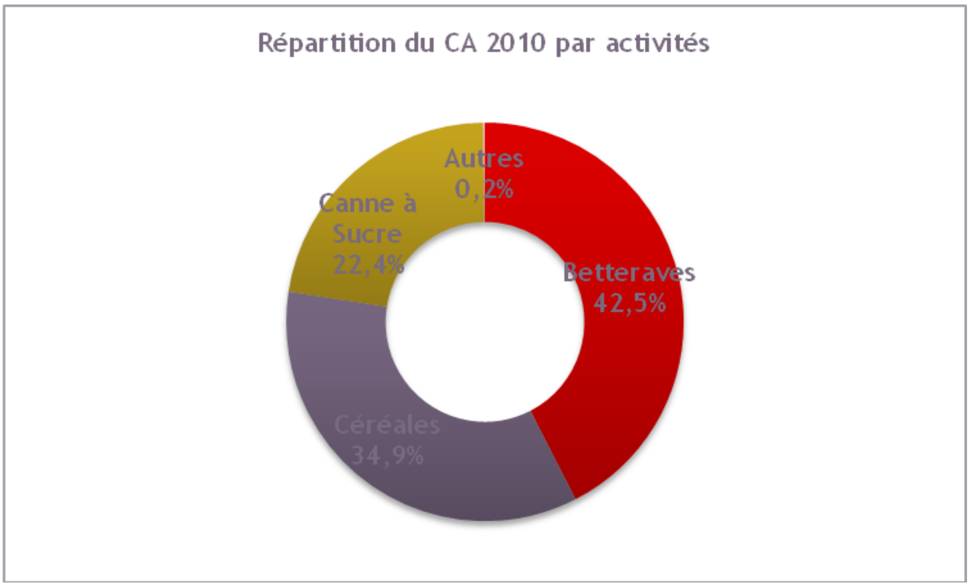
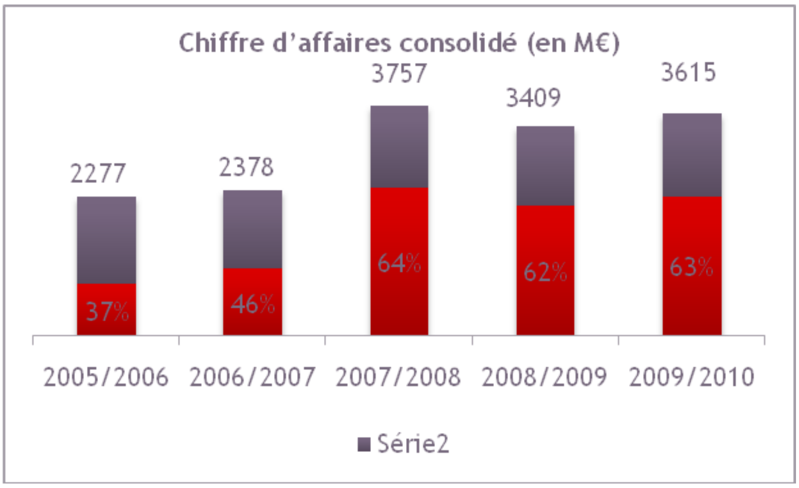

12000 Associés Coopérateurs
100%
12 Coopératives
100%
Tereos
Idia + Unigrains
100%
92,7%
7,3%
Tereos France
Coopératives Céréalières
Tereos Participations
35%
65%
100%
Tereos Agro-Industrie
Tereos TTD
Bourse brésilienne
Autres
88%
10,7%
1,3%
Tereos Internacional
Petrobras
100%
100%
68,6%
31,4%
Syral Do Brasil
Tereos EU
Guarani

**Exhibit 14:**



Répartition du CA 2010 par activités
Autres 0,2%
Canne à Sucre 22,4%
Betteraves 42,5%
Céréales 34,9%

Chiffre d'affaires consolidé (en M€)
2277
2378
3757
3409
3615
37%
46%
64%
62%
63%
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
Série2