

PROCESSING & DISTRIBUTION

INTRODUCTION

HISTORIC DEVELOPMENT

Means of transportation and places of trade

X-DOCKING BASEL

Transit of food in and out of Basel
Dispersion within the city
Overview on processors in Basel

CIRCULATING STAPLE FOODS

Cereal

Milk

Meat

Fruits & Vegetables

FOOD LOGISTICS

COOP distribution

CONCLUSION



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Fall Semester 2011

INTRODUCTION

We will analyse food processing and distribution, concentrating on Basel Stadt and Land, seeing how this mechanism influenced the city in the course of the years.

We want to give an overview of this mechanism trying to understand what is happing in Basel and the routes of the food before we can buy it in the shops. We will analyse certain companies that are involved in food processing and distribution that are specifically relevant for Metro-Basel.

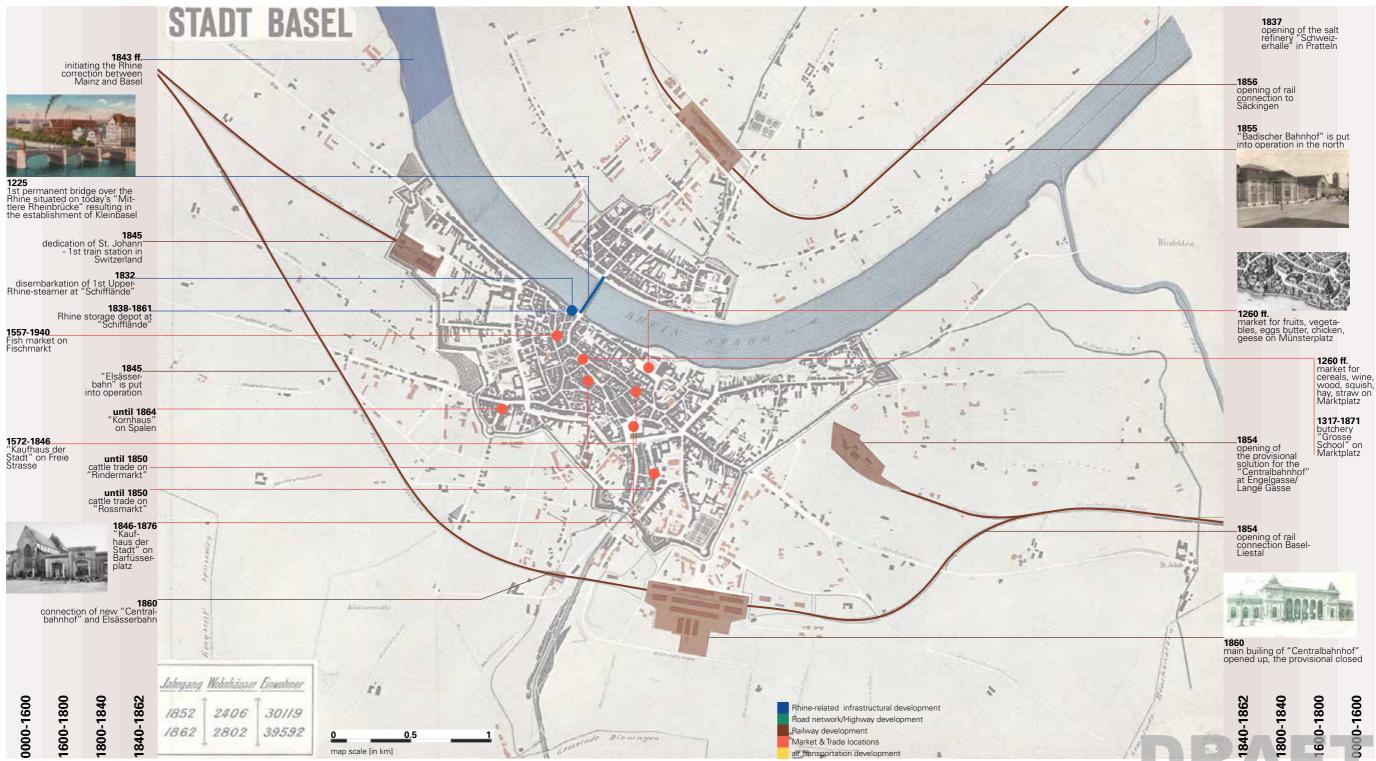
We want to step back and get an understanding of the complexity of involvement of food logistics and look at it on the scale of Basel as well as of Switzerland.



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- 212 -

HISTORICAL DEVELOPMENT



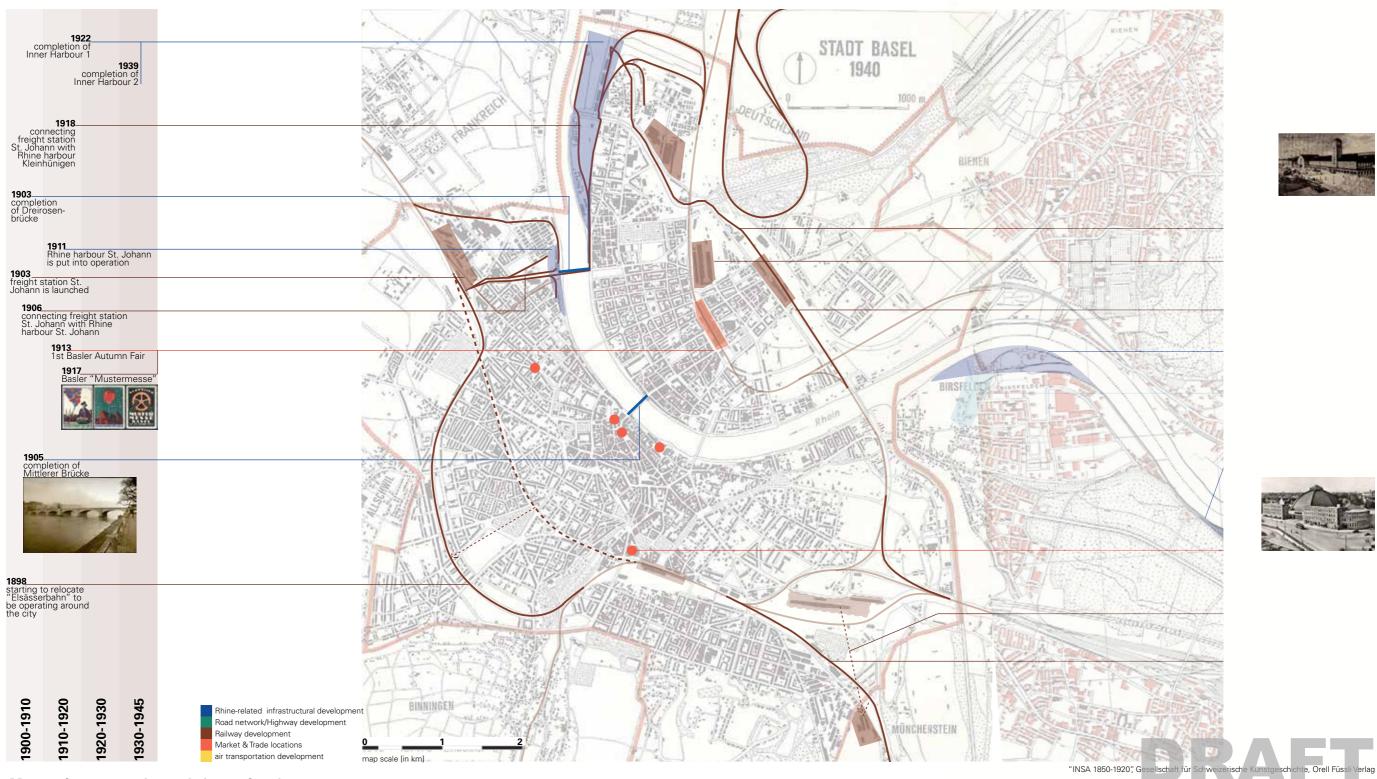
Means of transportation and places of trade until 1862

"INSA 1850-1920", Ges

"Basel einst und jetzt", Walter Sulterlin, Buchverlag Baseler Zeitung © ETH Studio Basel

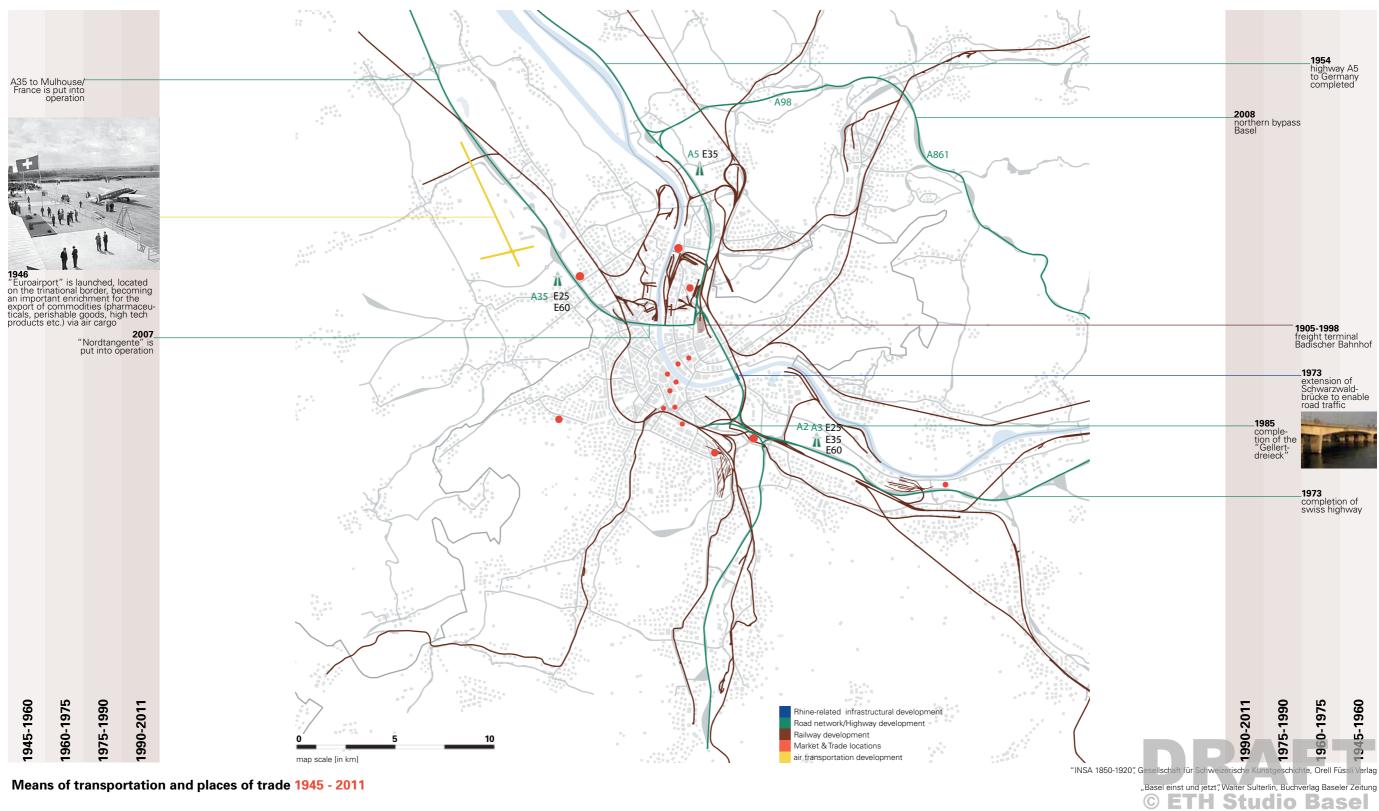


Means of transportation and places of trade 1862 - 1900



Means of transportation and places of trade 1900 - 1945

"Basel einst und jetzt", Walter Sulterlin, Buchverlag Baseler Zeitung



Means of transportation and places of trade 1945 - 2011



Baedekers - Switzerland - 1881 - Basel

1869 FIRST SHOP.

On the 29th of March 1869 the butcher Samuel Bell (1840 -1920) opened his first "Ochsenmetzg" in Streitgasse 13, Basel. He laid the foundation for a successful story becoming the biggest butcher in Switzerland.

The business from the new shop prospered from the beginning, because the location was very favorable. The butchery shop was located in the city center and near to Weissen Gasse.

People from Basel liked the products a lot, specially the sausage, so the demand raised rapidly.

In 1899 the first store was opened in Spalenberg 13.

Soon more stores were opened in Basel, the most important one was the "Centralhallen", opened in 1905. This was the first shopping center in Basel, where all food and a restaurant were under one roof.

The opening of the "Centralhallen" marked a significant milestone in the development of the company, it was also one of the first european shops.

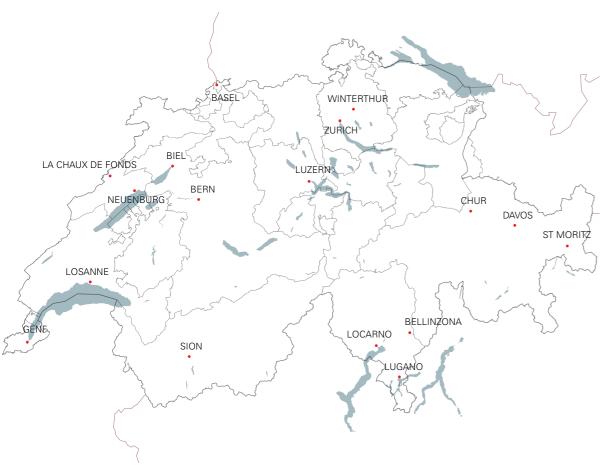




Bell locations from 1923 to 2011



Butcher shop in Germany from 1926 (www.durlach.org)



Location of all the processing plants from Bell in the 1980

BELL GROUP IN THE HISTORY

Bell was important for Switzerland during the first World War through the production of edible fats and "industrietalg".

As a consequence from the First World War 45 from the 123 shops from Bell clsed.

During the years Bell continued to expand and to open bicher shops, and production sites all over Switzerland.

In 1913 Bell associated with the actual COOP, at the time "Verband Schweizerischer Konsuvereine" called. In 1962 Bell was counting 172 shops.

The company acquired other meat swiss companies like: Grider AG, Geflügel und Wild import AG, SEG - Poulets, Cool Food AG, Top Toque SA, Fleisch AG Luzern, Vulliamy SA. But also some french and german companies like: Polette, Zimbo and Abraham

Nowadays more then 90% of the population knows the brand. 100.000 Cervelats sausages are sold every day.

50 Bell products are sold every second in Switzerland.

EVOLUTION OF THE LOGO

1920	
1933	BELL
1952	3લો
1962	% 4
1972	अवी
2003	Bell



Butcher shop in Germany from 1926 (www.durlach.org)



Jenzer butcher shop in Arlesheim (oct. 2011).

© ETH Studio Basel

X-DOCKING BASEL

A CITY AS A TURNING PLATFORM FOR FOOD DISTRIBUTION

Basel is functioning as an overdimensioned X-DOCKING station where different traffic carriers from various points of origin are handling their cargo. This is due to its location on one of the most important North-South connections in Europe and the benefits of the Rhine proximity.

There are several international HUBS located in the area of Metro Basel. The international freight arriving/departing via railway and roads is getting navigated through 3 hubs which are geographically spread over the area of the city.

One is the freight handling station "Umschlagbahnhof DUSS-Terminal Basel-Weil am Rhein" in the North of the city right at the border having an exceptional geographical position being a joining connection between Switzerland, Germany and France. In its position as an important turning platform it is circulating freight on the railway axis Frankfurt-Karlsruhe-Basel to the industrial centers in northern Italy. Both the one freight handling stations are located in the South - "Güterbahnhof Wolf UAG" and the newly expanded "Euro-Hub Basel SBB" Muttenz.

International freight arriving via ship is having its stop-over or are being destined at one of the three ,Schweizerische Rheinhäfen' (SRH) being either harbour Kleinhüningen, harbour Birsfelden or the Au-harbour. The train stations St. Johann, Au-harbour and Birsfelden which are directly connected to the harbours are helping to provide an efficient further transportation. Part of the goods that are turned over at SRH are destined for the domestic market or straight for Basel Stadt. From the SRH they are getting picked up and delivered to warehouses mostly located outside of the city, from where they will be further transported to the stores via regional SPOKE.

Most of the international freight - in terms of food but also concerning non-food - arrive via the road network. This is resulting in immense road traffic, within the region of Metro Basel.

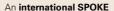
23 mio. tons = 40% of CH imports-exports



Commodities passing Basel's bordercrossing per year

> The function of international HUBS includes the loading and compiling of freights that are meant to be further transported to other national or international destinations.

> is symbolizing an international trade route for goods and commodities of any kind connecting



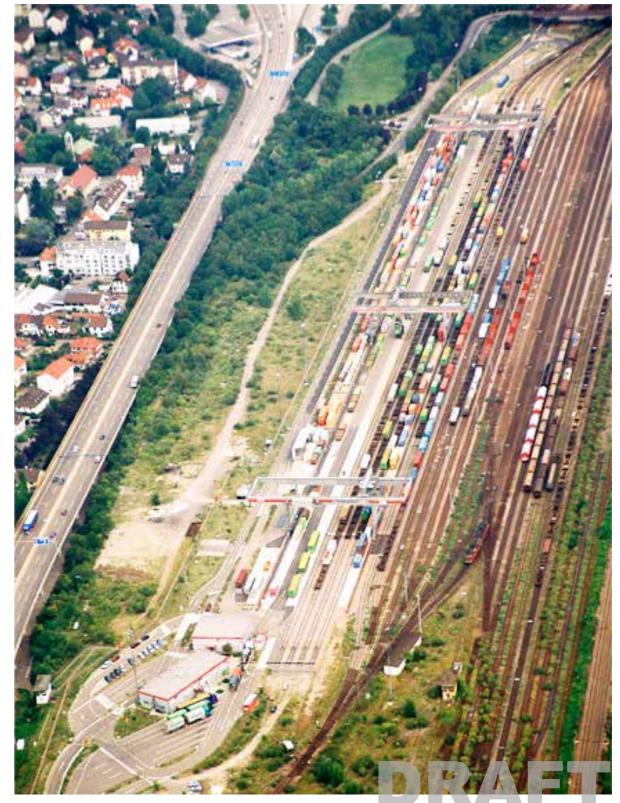
international HUBS.



Freight handling station Wolf, UAG (http://www.homegate.ch)



Swiss Rhine Harbour Kleinhüningen, Basel (http://www.port-of-switzerland.ch)



Freight handling station 'DUSS-Terminal Basel-Weil am Rhein' © ETH Studio Basel

- 227 -- 226 -



ROAD SHIPMENTS





http://www.swiss-pics.ch

agricultural & fishery products aliments & stimulants
TOTAL (roads)









CHF

% from TOTAL food	imports via roads
80,1 %	76,3 %
22.424	73.268.000
53.200	374.962.000

533.279





EXPORT 2010

CHF

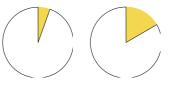
% from TOTAL food exports via roads 449 1.314.000 14.425 67.881.000

> 367.973 28.176.786.000



EUROAIRPORT





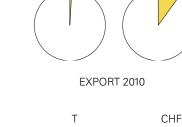
IMPORT 2010



% from TOTAL food imports via airfreight 5,5 % 16,6 %

agricultural & fishery products 6.621.000 818 aliments & stimulants 4.345 90.620.000

TOTAL (airfreight) 8.102 1.808.542.000

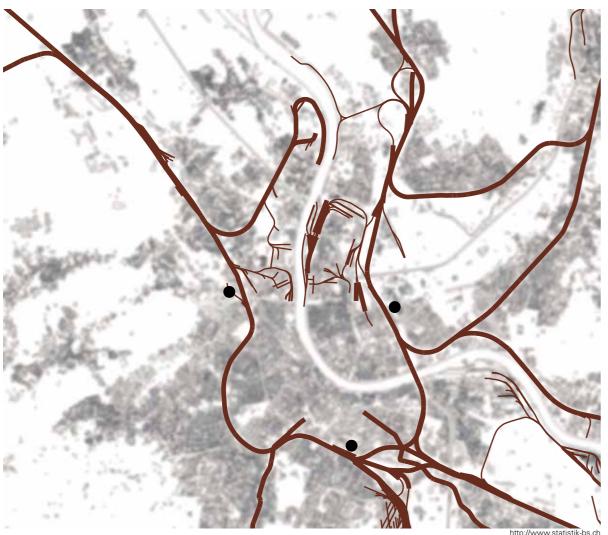


% from TOTAL food exports via airfreight 0,9 % 10 %

36.000

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5.174.819.000

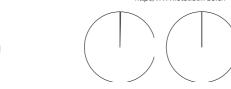


RAIL CARGO

TOTAL (rail)







IMPORT 2010

CHF

EXPORT 2010

% from TOTAL food exports via rail 0,3 % 0,22 %

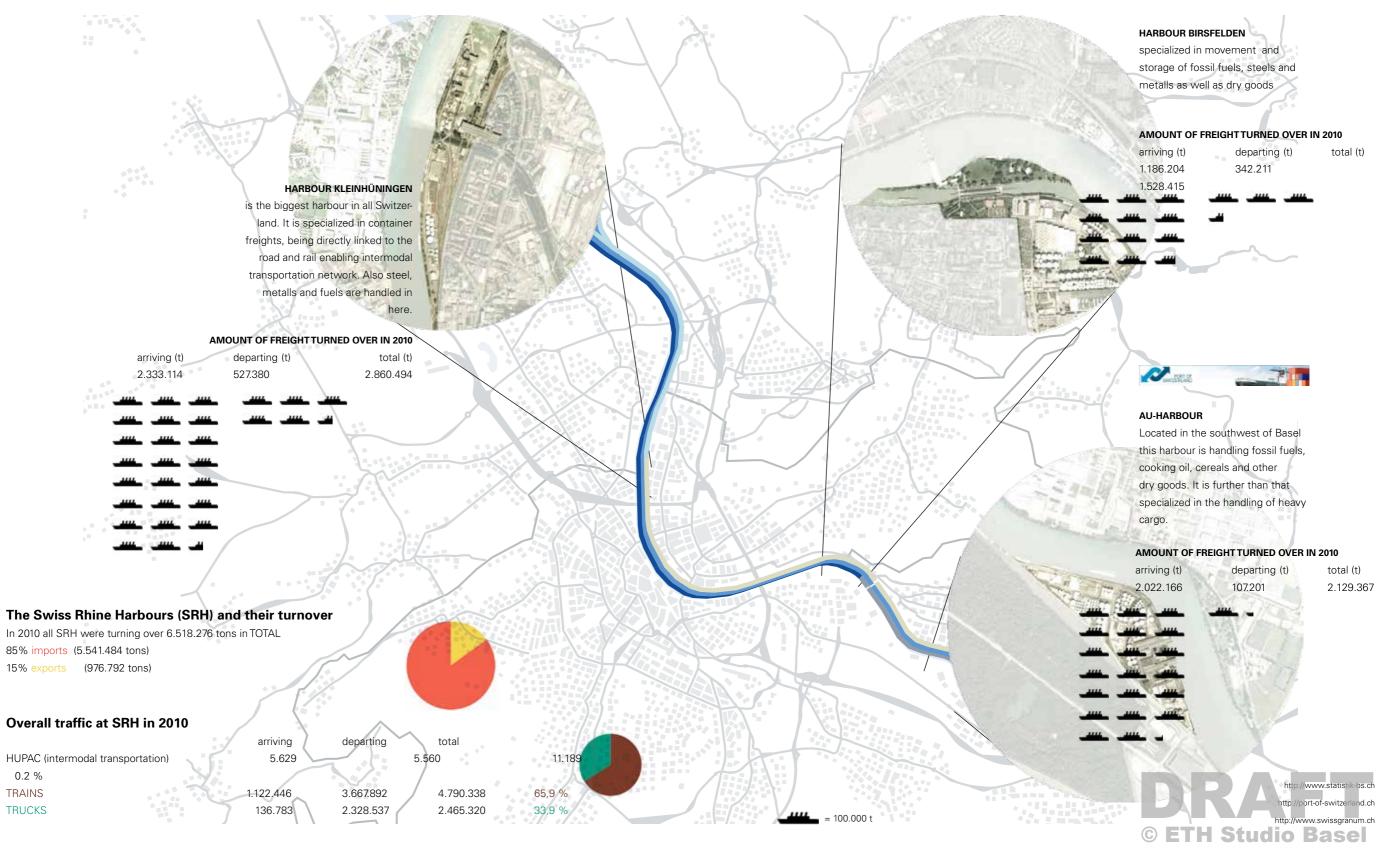
CHF

	% from TOTAL food imports via ra	
	5,5 %	0,02 %
agricultural & fishery products	138	467.000
aliments & stimulants	4 995	12 429 000

11.080	180.096.000	122.108	724.222.000
1.995	12.429.000	44	176.000
138	467.000	-	-

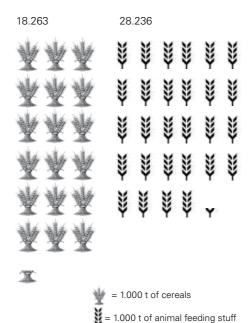
SWISS RHINE HARBOURS IMPORT 2010 EXPORT 2010 CHF CHF http://www.port-of-switzerland.ch % from TOTAL food imports via SRH 7,8 % 1,9 % % from TOTAL food exports via SRH 1 % 1,1 % 611 853.000 45.000 agricultural & fishery products aliments & stimulants 6.711 10.318.000 TOTAL (SRH) 506.836.000 773.120

© ETH Studio Basel

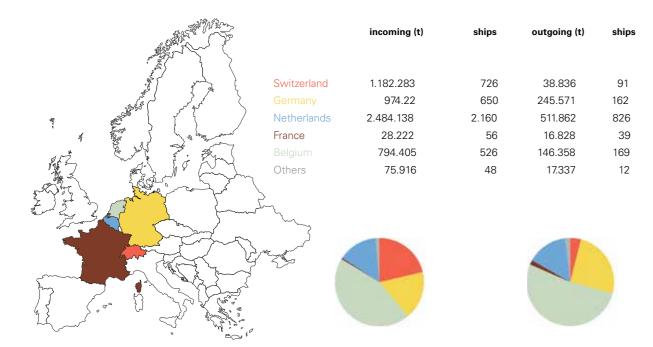




Bird's eye view of Harbour Kleinhünhingen (http://port-of-switzerland.ch)



Kaiseraugst's turnover of cereals & feedi0ng stuffs in 2010



Turnover of all commodities at SRH by countries in 2010



agricultural products 6.359
aliments & feeding stuff 142.789

TOTAL 149.148



Bird's eye view of Au-harbour in Basel (http://port-of-switzerland.ch)

Turnover of food at SRH in 2010





	TOTAL IMPORT CH (t)	TOTAL PRODUCTION	CH (t) TOTAL CH (t)
cereals 1	682.541	923.586	1.606.127
oilseeds ²	43.071	81.576	124.647



cereals ratio_production:import

oilseeds ratio_production:import

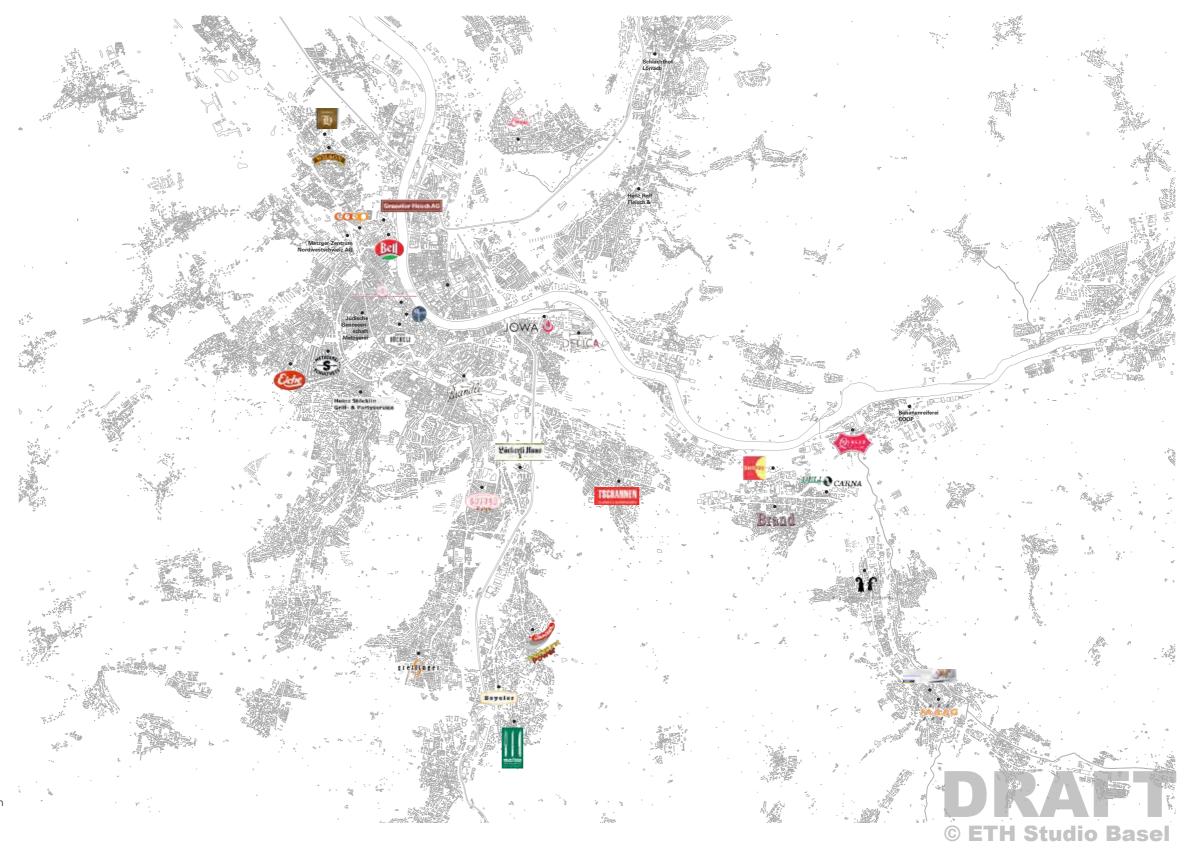
Import & domestic production of cereals/oilseeds



¹) include: bread cereals (rye, spelt), cereals for animal feeding (barley, oats, maize, etc.) ²) include: canola, sunflower, soja





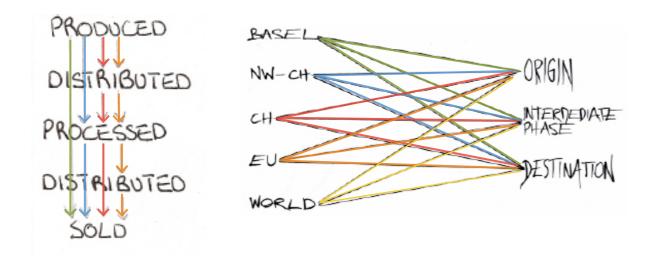


OVERVIEW OF PROCESSORS

In the map there are pointed out some of the most important food processors in Basel.

CIRCULATING STAPLE FOODS IN BASEL

A staple food is a food that is eaten regularly and in such quantities as to constitute the dominant part of the diet and supply a major proportion of energy and nutrient needs. Staple foods vary from place to place, but are typically inexpensive or readily-available foods that supply one or more of the three macronutrients needed for survival and health: carbohydrate, protein and fat (such as grains, tubers, legumes, or seeds). The staple food of a specific society may be eaten as often as every day, or every meal.



The diagrammes above highlight some important aspects of processing and distributing food.

The first diagramm explains the product's evolution complexity. Every product is follow certain steps in a chronological order which are specific for it to become destined. For some products the production steps are many, and the food is distributed and processed many times at different locations. On the other side for some products, like friut or vegetables, the production steps are just two, the product is produced and then immediately sold.

The second diagramm highlight the geographical spread of a product. It shows where is the origin from the product, where is happening the processing and finally where it is sold.

There are some products that are produced and sold in the same place, having so the quality to be local products; but most of the products are imported from other countries.

Staple foods in Switzerland include bread, potatoes and cereals along with vegetables and fruits and a good consumption of milk, cheese and meat regarding a balanced diet.

In this chapter we want to introduce the circulation of staple foods in the area of Metro-Basel. It is structured into 4 "food stories" explaining facts and figures about cereals, milk, meat as well as fruits and vegetables illustrating their trade on swiss scale, significant sources, the main actors in processing and distribution and going more into detail about certain actors explaining different case studies.



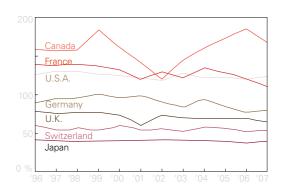
© ETH Studio Basel





The food self-sufficiency rate is an indicator that shows how much daily food per capita is produced within a country. It is based on calories and calculated as

Self-sufficiency in grains is also often used to compare between countries, as almost complete data from industrial and developing countries are available.



The figure of Japan is the lowest among major industrialized countries. In fiscal 2006, it broke the 40 % level, declining to 39 %.

X = daily domestically supplied calories

per capita daily totally supplied calories per capita

www.stat.go.jp/english/data/handbook/c05cont.htm www.agrometeorology.org www.japantimes.co.jp www.letemps.ch

SWITZERLAND'S TRADING FIGURES

TRADE in 2010

20 EXPORT \$ 232.600.000.000 # 20 IMPORT \$ 226.300.000.000



 $www. {\it cia.gov/library/publications/the-world-factbook}$

GROSS DOMESTIC PRODUCT 2010

purchasing power parity: \$ 324,5 billion #38 world
per capita (ppp): \$ 42.600 #17 world
sector: agriculture 1,3 %
industry 27,7 %
services 71,7 %

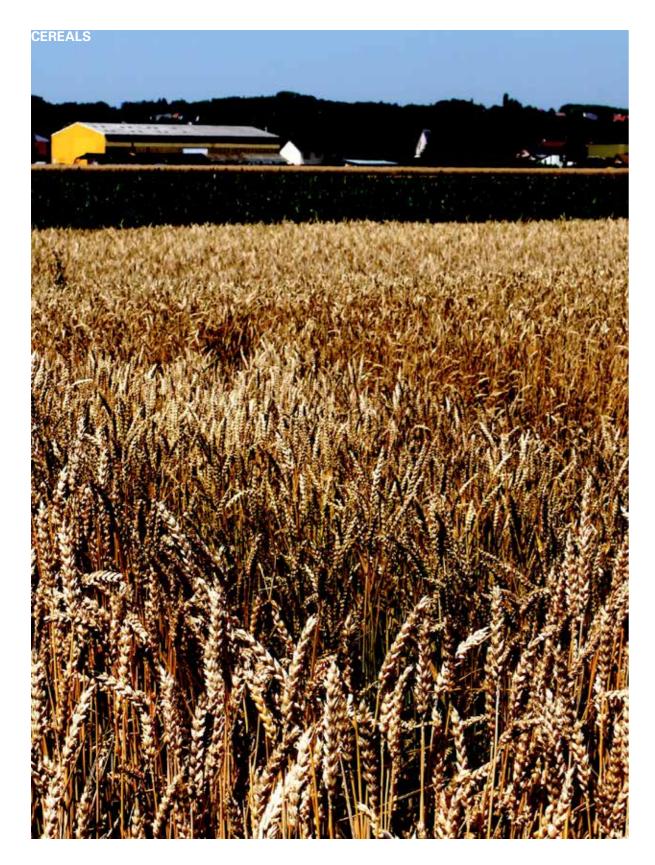
www.cia.gov/library/publications/the-world-factbook

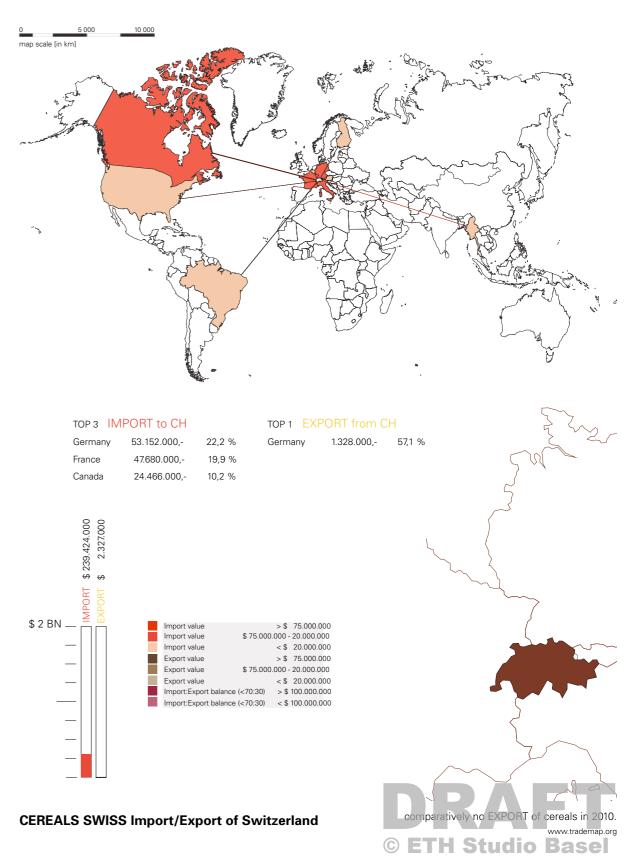
FOOD SELF-SUFFICIENCY

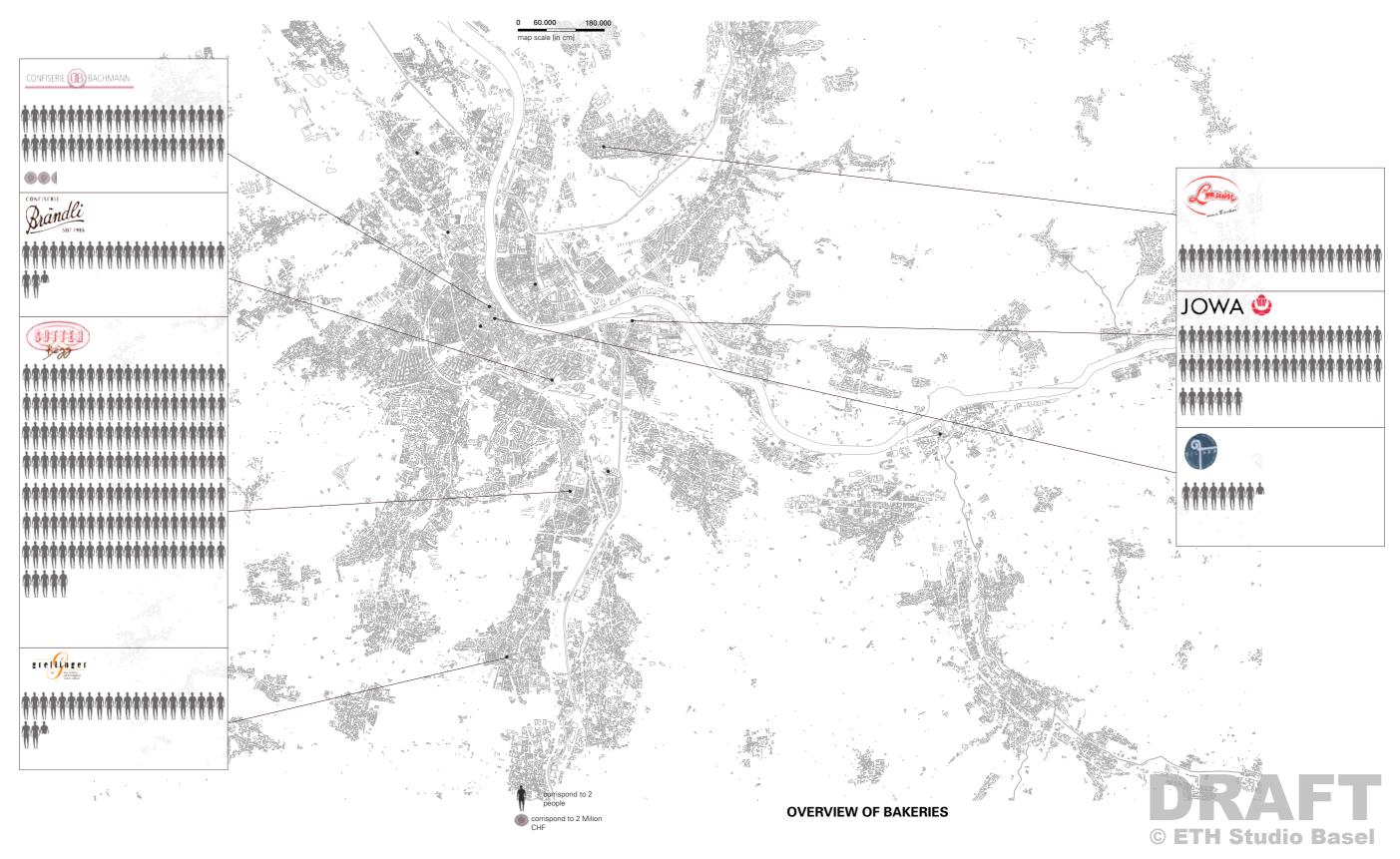


In June 2007 the Swiss government liberalized exports and imports of cheese. Switzerland has little arable land so in order to boost agricultural production, maintain its landscape and reduce dependendy on imports, it provides direct compensation to farmers, paid not only on the basis of land area, the number of livestock raised and their condition, but also in accordance with farmers' efforts to maintain the environment, including a reduction or halt in the use of farm chemicals.











Landi Reba AG shop in Bebendorf.

CASE STUDY: FENACO GOF - LANDI REBA AG CROP DISTRIBUTION.

Fenaco is a business group that takes care about grain, oil-seeds and feedstuffs for animals (GOF).

Fenaco's tasks are:

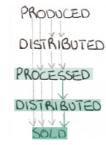
- marketing of domestic products
- trading raw materials and specialities of all types for the food and compound feed industry and for animal owners within Switzerland
- support farmers and the development of their businesses.

An important marketing partner from Fenaco is Landi, which is an agricultural cooperative union owned by the farmers (Landi Reba AG is responsible for the area of Basel-Land).

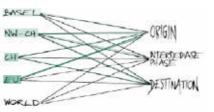
Fenaco and Landi provide the farmers with all means of production, they look at the interest from the farmers.

Since a short period of time Fenaco takes the farmers' products like seeds, grains, oilseeds, potatoes, cattle, eggs, corn, vegetables, fruits and grapes and refines and markets them. Fenaco is divided in four regions on the swiss territory.



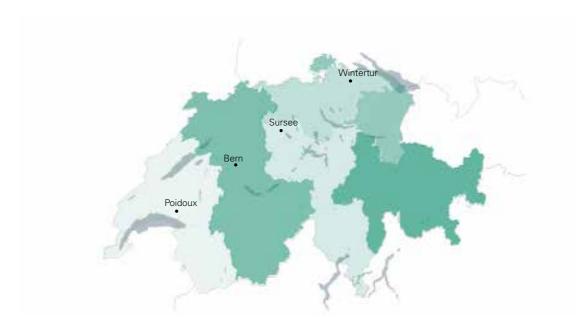


Fenaco products' evolution complexity.

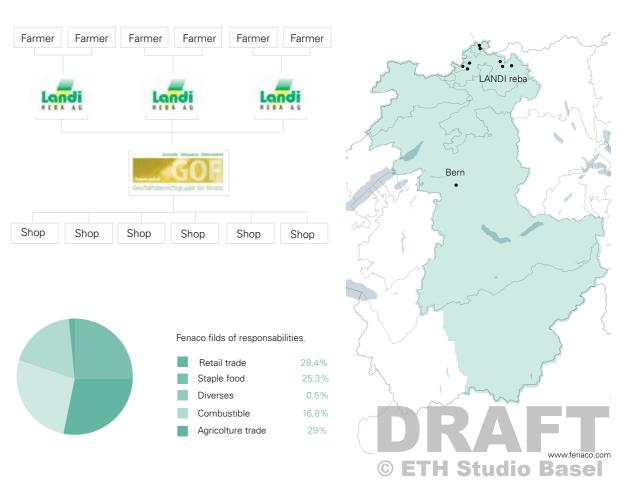


Fenaco geographical spread.

www.fenaco.com



Fenaco division of Switzerland.





Landi Reba AG shop in Laufen.



THERWIL GELTERKINDEN BUBENDORF AESCH

LANDI REBA AG.

Landi Rega AG supplies 1200 farmers in the region of Basel-Land with products.

Nowadays there are more or less 300 Landi groups. In the region of Basel-Stadt and Land there are 6 Landi centers, 3 of them are magazines were the farmer can deliver their products.

Landi rega AG Magazin and store Landi rega AG store

Landi Reba AG stores in the area of Basel land. www.landireba.ch



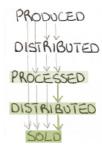
Sutter bakery production plant.



CASE STUDY: SUTTER BEGG.

Sutter is a local bakery, the first Sutter shop was opened in 1910. The production plant is located in Münchenstein and Sutter is operating 25 shops all around Basel.

The production plant is open seven days a week, and is constantly working.



SUTTER's products' evolution complexity.



- 251 -



Origin of raw materials.

12.000 customers in law season20.000 customers in hight season

PROCESSING AT SUTTER BAKERY.

Sutter Begg bakery gets the raw materals not only from Switerland but also from Germany abd Austria.

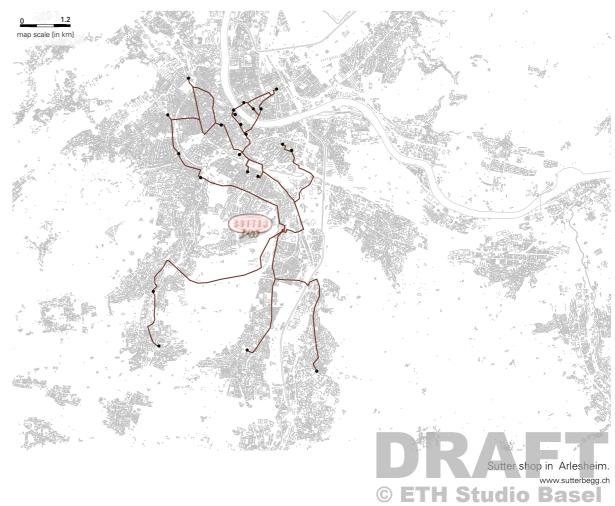


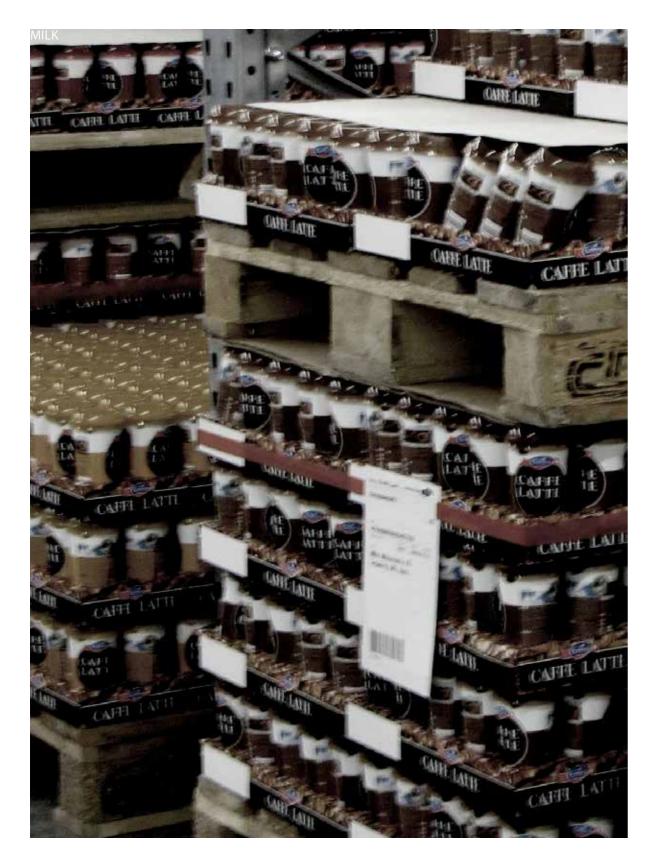
Inside the production plant in Münchenstein.

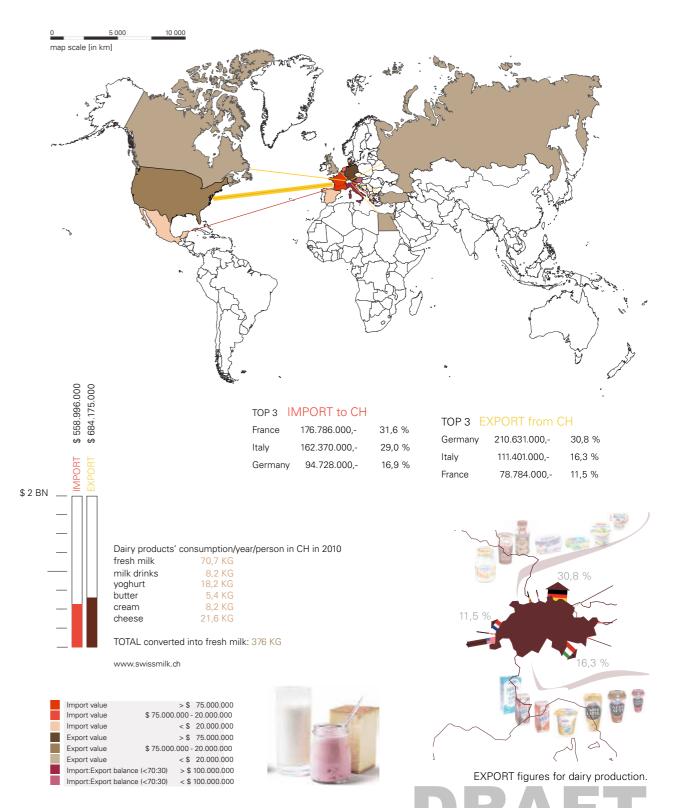




Sutter shop in Arlesheim.

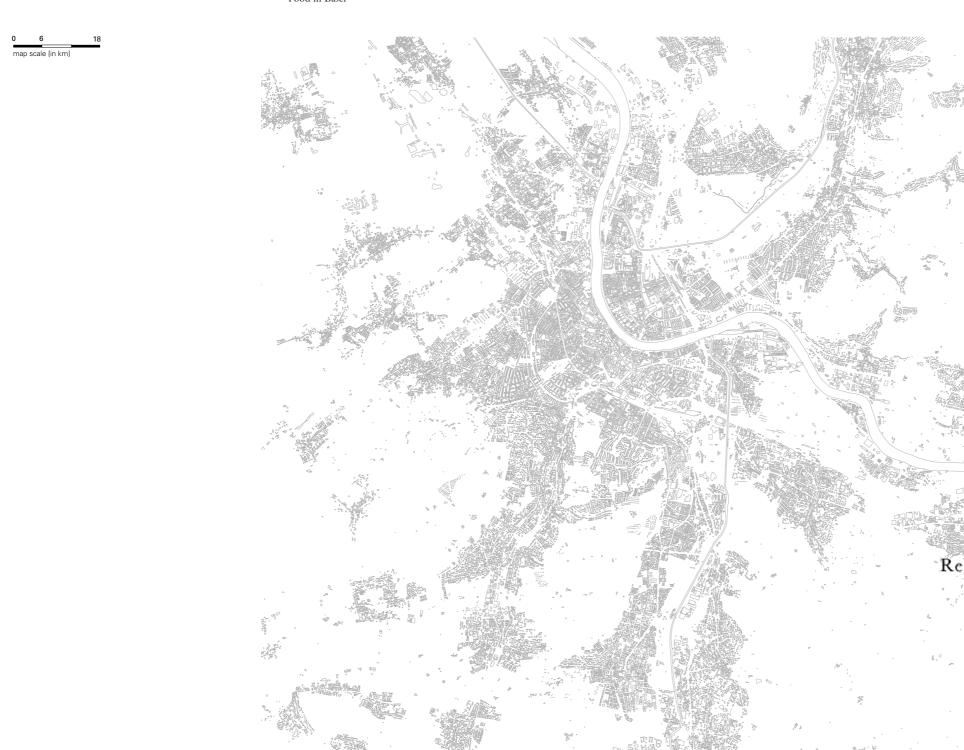






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DAIRY PRODUCTS Import/Export of Switzerland



Regio Molkerei beider Basel



OVERVIEW OF MILK PROCESSORS

In the area of North-West Switzerland there is only one milk processor.





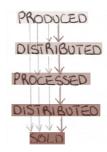


MIBA processing plant.

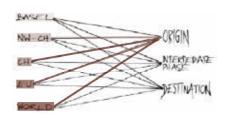


Case study: MIBA milk association

MIBA milk association is a cooperative union collecting the milk of all of the 2000 milk producers in north-west Switzerland. MIBA is the only collector and distributer of milk within this area, selling the main amount of milk to Estavayer Le SA (ELSA) and EMMI. So all the milk produced in the region of north-west Switzerland is further transported into central and south-west Switzerland to be processed there. From all the milk collected only 2% are going to be processed in the region as well. This is taking place at the "Regio Molkerei beider Basel" in Frenkendorf which is a local subsidiary of EMMI and the only milk processor in all north-west Switzerland.



MIBA's products' evolution complexity.



MIBA's geographical spread.

Processed milk in Switzerland 2010 3.437.622.000 kg milk

annual transport 257.779.852 kg milk

daily transport 708.000 kg milk

annual revenue 167.700.000 CHF

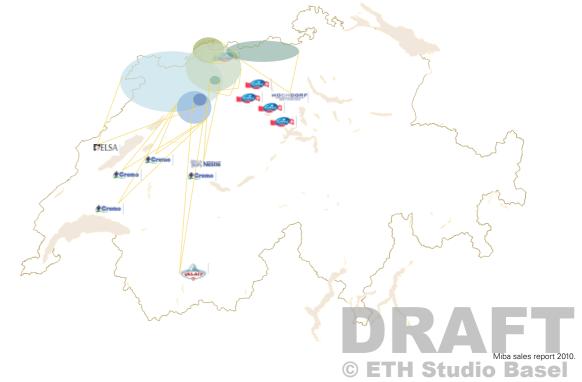
annual profit 175.000 CHF

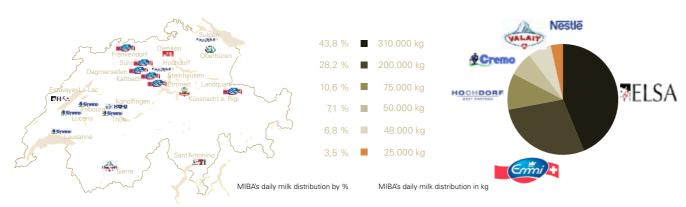




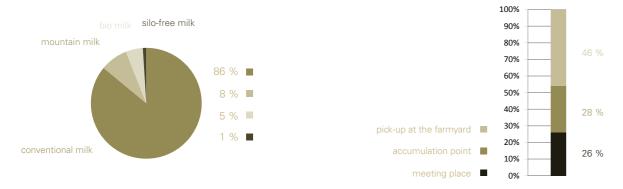
Location os swiss cremeries (www.die-molkerei.ch)

	MEMBERS (organisation)	MEMBERS (individual)	TOTAL MEMBERS
Aargau	208	35	243
Basel - Land	381	48	429
Basel - Stadt	2	1	3
Bern	208	34	424
Jura	512	61	537
Solothurn	503	59	562
	1814	238	2052





MIBA's milk flow towards SWISS CREAMERIES "BIG 6"



Annual/daily milk processing & distribution

MIBA's volume of milk according to mode of collection

MIBA's annual distributing facts & figures

9	number of milk trucks	29
***	number of truck drivers	51
Ď.	annual fuel consumption [I]	958.955
	annual road distance [km]	2.287.884
	annual railway distance [km]	261.802



MIBA sales report 2010



Inside Miba.



Inside Miba.

© ETH Studio Basel



Outside viem Regio Molkerei beider Basel.

Case study: Regio Molkerei beider Basel.

Regio Molkerei beider Basel is a small milk processing plant in Frenkendorf, the only one in north-west Switzerland. The company is owned by MIBA and was founded

They process local products like milk, yoghurt and yo-

They are distributing their products only in north-west Switzerland and are well-known in the region of Basel-Land due to the quality of their products.

The processing of milk in a day averages out 6 hours.

Per year they process Per hour they process



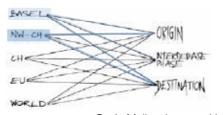
3,6 MILLION L MILK 2.000 L MILK

4 types of milk are processed





Regio's products' evolution complexity.



Regio Molkerei geographical spread.



Area where regio Molkerei takes the milk from.







Products distributed to COOP stores. Products distributed to MIBA Milchprodukte 10 %

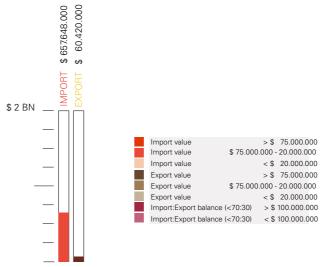


- 262 -





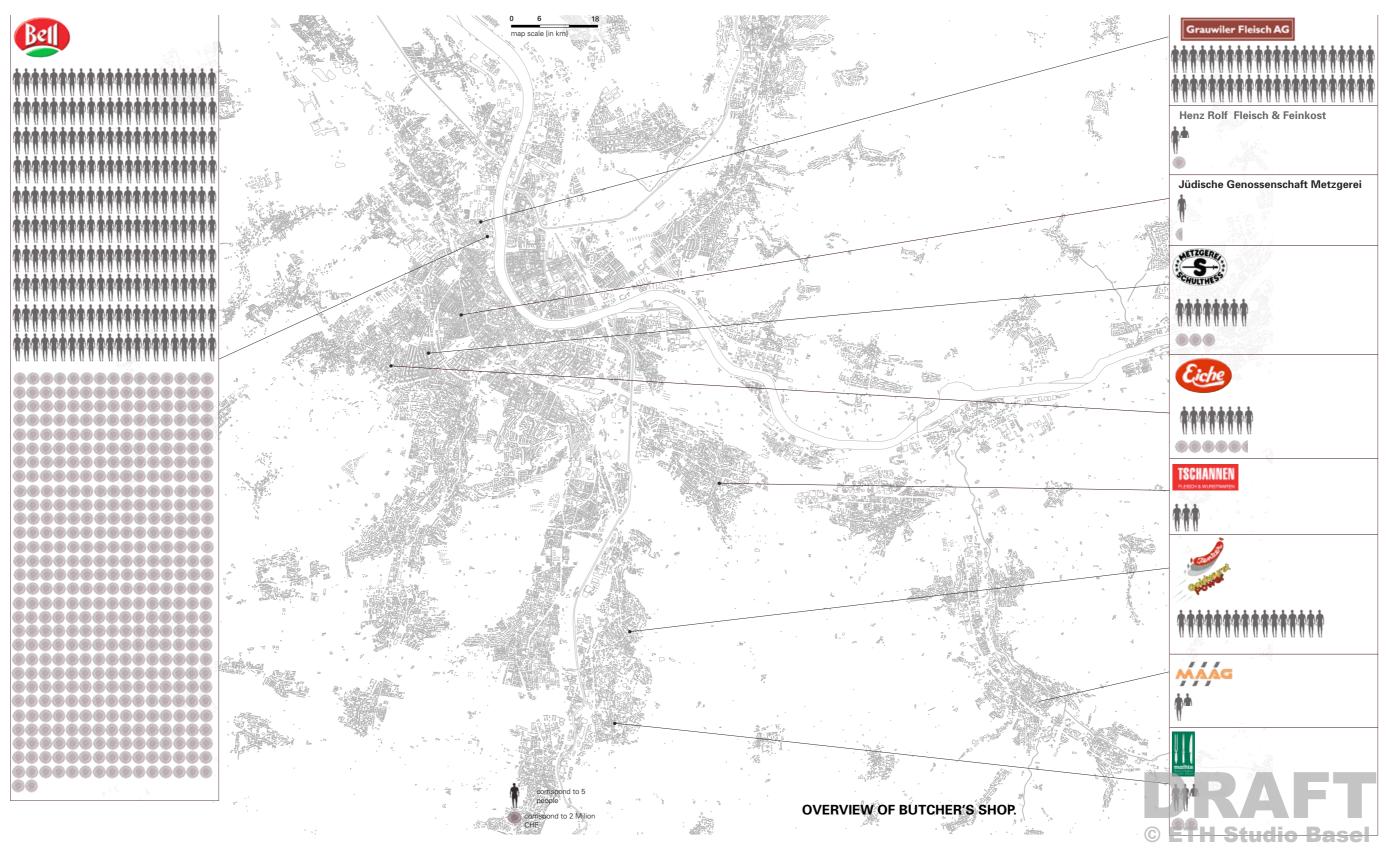






www.trademap.org

MEAT Import/Export of Switzerland.





Bell Group processing plant in Basel.

Case study: Bell Group.

Bell is the number one in the Swiss meat industry.

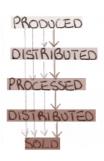
As a full-service provider for the retail trade, wholesale trade, the catering trade and the food industry, Bell has stood since 1869.

In Europe the Bell Group includes the French Groupe Polette and the German companies ZIMBO and Abraham.

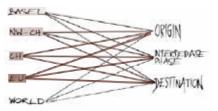
About 6,500 employees in the Bell Group ensure that a comprehensive range of meat, poultry, charcuterie, seafood and contemporary convenience dishes are distributed fresh every day.

Bell is one of the most popular food brands in the country. Over 90 % of the population knows the Basel company and statistically around 50 Bell products are sold every second in Switzerland.

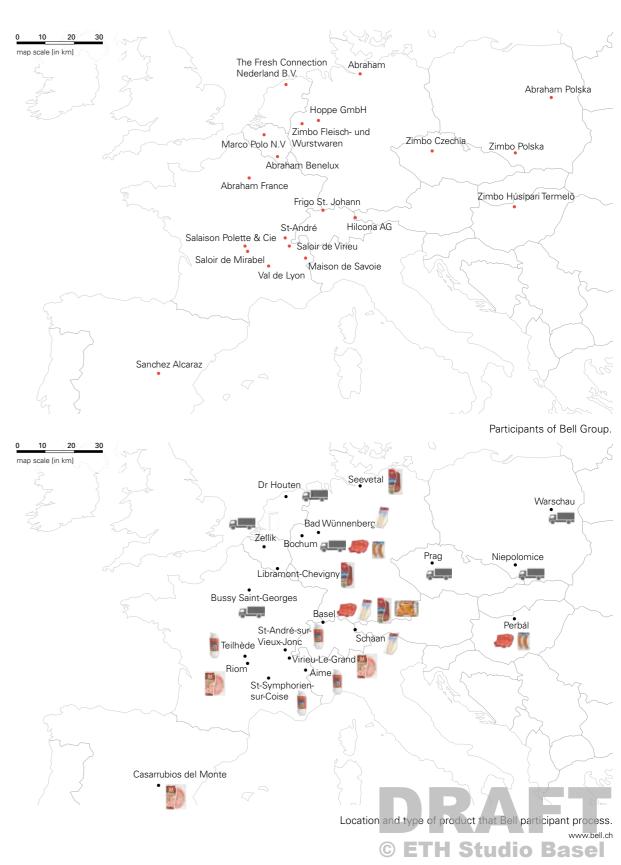


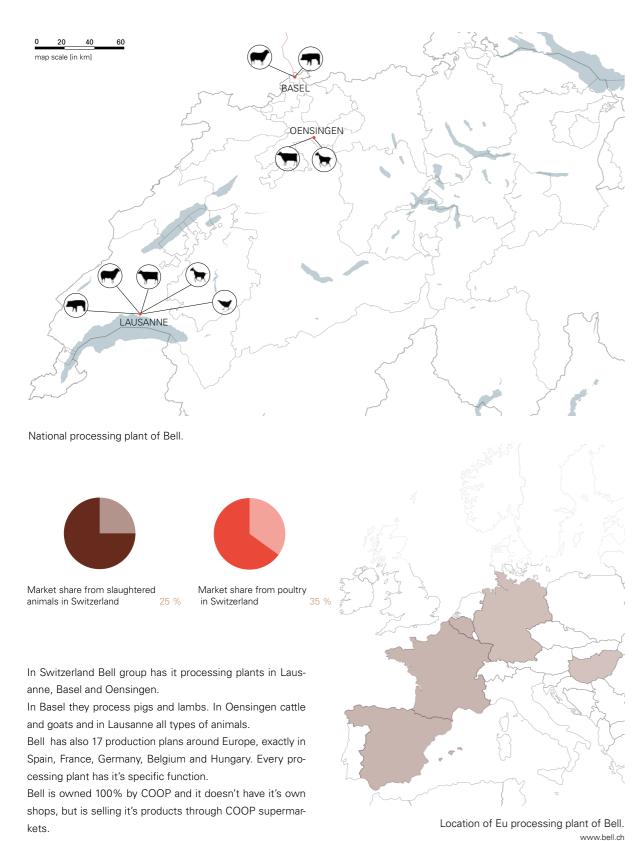


Bell Group'sproducts' evolution complexity

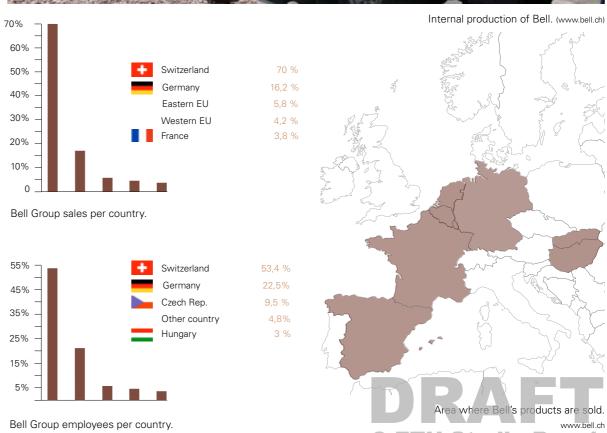


Bell Group geographical spread.











Jenzer shop in Arlesheim.

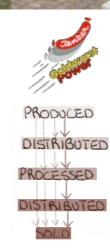
Case study: Jenzer Fleisch & Feinkos. Meat processing and distribution.

Jenzer Fleisch & Feinkost is a local butcher having its head office in Arlesheim where all the processing takes place.

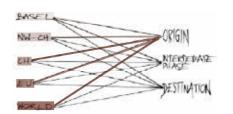
The company started around 100 years ago and was handed from generation to generation, nowadays being at the fourth generation.

The brand is widely known in the region of Basel-Land, also because of its tipicle Goldwurst.

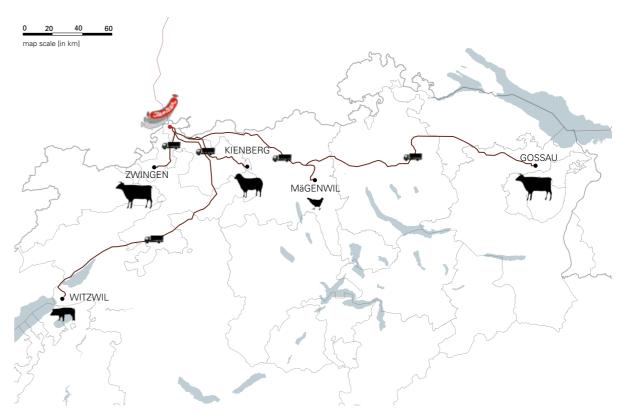
They have also two shops in Reinach and Muttenz where they sell their products.



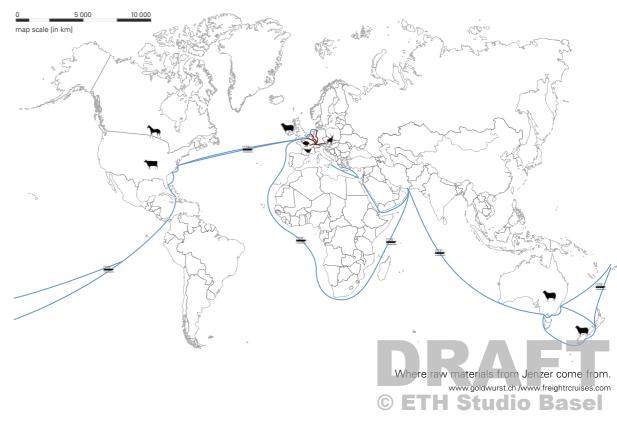
Jenzer's products' evolution complexity.



Jenzer geographical spread.



Where raw materials from Jenzer come from.





Window on the meat processors.



Processing the meat at Jenzer.

Meat processing at Jenzer.

In Switzerland 2/3 of the meat is sold through COOP and MIGROS, the rest by smaller shops like Jenzer.

Jenzer is a local meat processor and is located in Arlesheim, here the meat is processed and the also sold in the shop which is connected directly with the processing area.

Every Monday morning is delivered at Jenzer's head shop meat already slaughtered and they start to process it right away.

They process cattle, pigs, lambs and calves. They get the meat from Switzerland but also from other countries all over the world.

When the meat arrives they put it in the refrigerated room for onetwo weeks, so it becomes tender and aromatic.

After they start to process the meat, from 20 to 25 pigs are processed every week.

The meat is cut into smaller pieces and the fat is removed. Normally from an animale there is a waste of 30%:

- 20% of bones
- 10% of fat

that are reused for doing soups or other aliments.

The pieces of meat are vacuum packaged with a special machine that takes out the air so the meat can be kept for a longer time.

The next step is the storage room, the meat is stored for one-three week in vacuum to permit his maturation.

Then the meat is distributed in the other two Jenzer shops and sold.

They also distributed the meat to hospitals, restaurants, hotels, mensa, shops but all in a radius of 10 km.

They're goal is to keep the food miles as low as possible and to have as much as possible local products.



Cattle in the refrigerated room.



Processing the meat.



Meat vacuum packaged.



48% Calves

26% Cattle

14% Loin

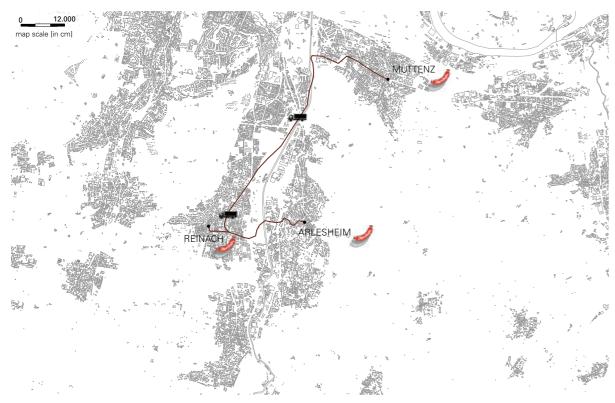
6% Ham

6% Cattle Nierst

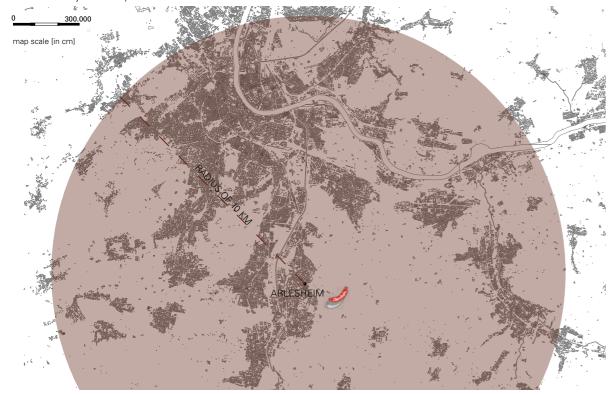
147.784 KG MEAT BOUGHT AND RESOLD



© ETH Studio Base







Meat distribution from Jenzer.



Different types of Goldwurst.

"Goldwurst" speciality.

One of Jenzer's local specialities is the Goldwurst, they are known in Basel for being one of the best producers of sausages.

They were also winning several medals for this product, beeing a local and delicious good.

There are many different types of sausages made from cattle, calves, pigs meat, and also made of lives or other interior parts from the animals.

The addictives and the spycery that they add to the Goldwurst are not local, but they come from Salzburg and Freilassing. So it is not actually a real local product even if they publicize like this.

The daily production of sausages is up to 1 ton, this corresponds to 10.000 meals.







Market in Torino.

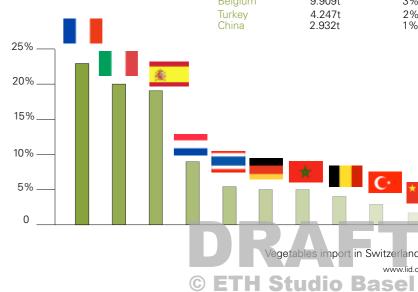
22%

France Italy Spain 54.783t 20% 52.750t 19% Niederlands 23.839t 8% Thailand 14.659t 5% 13.409t 5% Germany Marokko 12.909t 5% Belgium 9.909t 3% 2% 1%

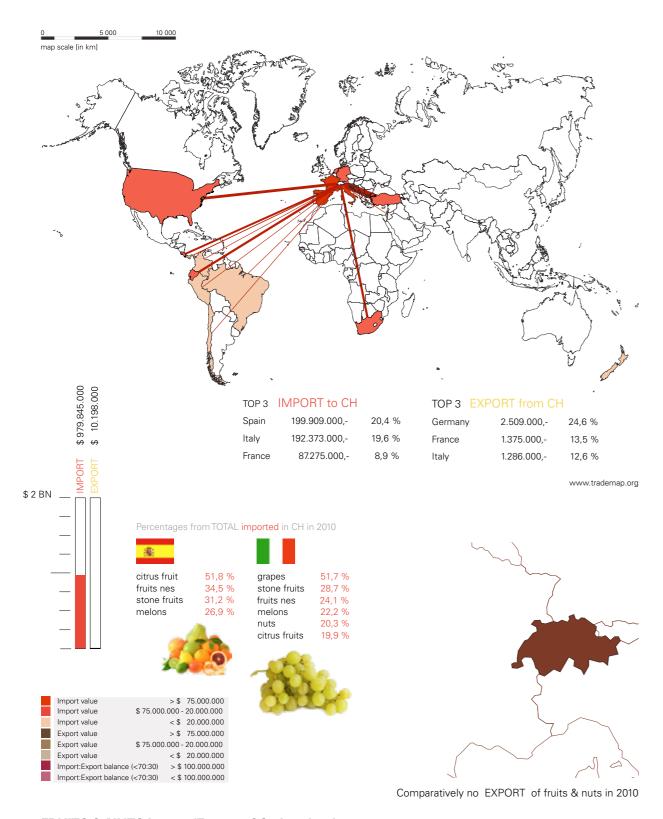
62.534t

Import of vegetables.

Every year approximately 6,400 tons fresh vegetables are imported into Switzerland for processing. 80,000 tons of vegetables are preserved (cooked, frozen, dried, etc.) on the Swiss market. 180,000 tons of vegetables that are imported are used in the processing of juices and sauces. Total results of imported amount is around 275,000 tonnes that are worth about 560 million francs.

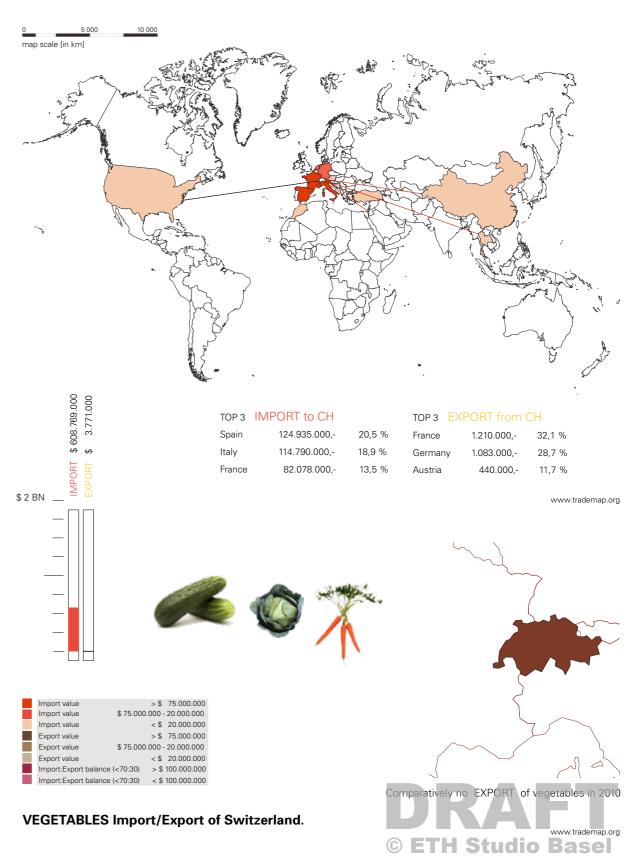


- 278 -- 279 -



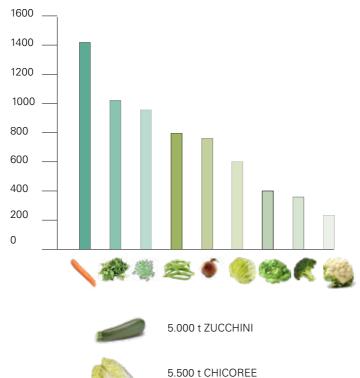
FRUITS & NUTS Import/Export of Switzerland.

www.trademap.org



3,300 Swiss vegetable farms produce: 250.000 T FRESH VEGETABLES







The actual area of vegetable cultivation in Switzerland is about 10,000 hectares. This is only 1 percent of total agricultural land. Basel city has one ha, and Basel-Land has about 152 ha.

7.000 t CAULIFLOWER

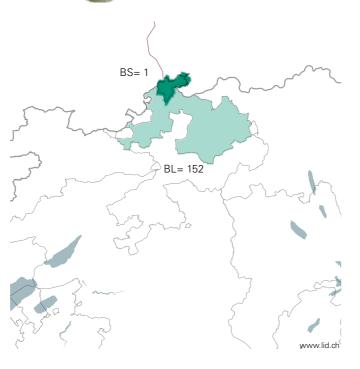
On this surface the vegetable industry achieved almost 13 percent of the total production value of Swiss agriculture. This is around 10 billion francs.

In terms of area, the carrots are at the first place with 1400 hectares, followed by spinach, peas, beans, onions and iceberg.

The ten most important vegetable cover nearly 50 percent of Switzerland's vegetable growing area.

Switzerland produce every year:

- 250.000 T of fresh food
- 70.000 T of stock vegetable
- 46.000T vegetable ready to be processes



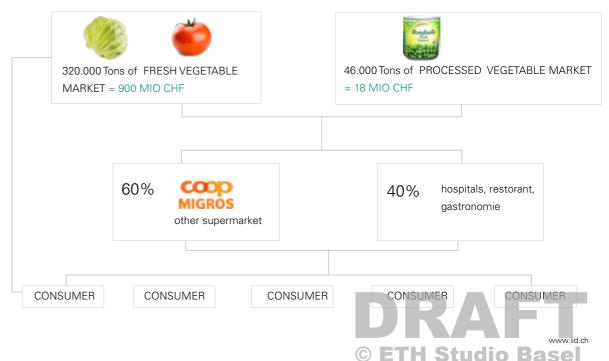
6.700 t CABBAGE

Processing of vegetables.

60% of the processed vegetable goes to supermarket like Coop, Mlgros, Lidl, Aldi, Denner. From this 60%, 80% goes to Coop and Migros, the rest to the others supermarket.

The other 20% of processed vegetables goes to hospitals, restaurants, industrial kitchens...





- 283 -

FOOD DISTRIBUTION





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- 284 -

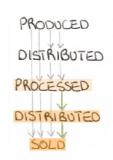


Bird's eye view from COOP's regional logistic center in Schafisheim (http://www.aargauerzeitung.ch/aargau/lenzburg)

Case study: COOP distribution

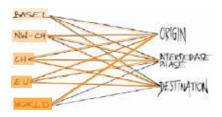
The COOP-Group is the second largest detail business in Switzerland having a total turnover of 20.007 mio. CHF per year (2010). 57 % of the detail sales volume is achieved with food, equivalent with 10.616 mio. CHF. In 2010 COOP was counting 1.915 stores extending on an area of 1.741.914 m². This is equivalent to almost the entire area of Gemeinde Bettingen. Furthermore COOP was employing 53.559 people in 2010 which is comparable with all the male swiss population of Basel Stadt. This number is excluding all 22.000 employess from 'Transgourmet Holding AG' which is the second largest Cash+Carry Food Service Company in Europe part of the COOP-Group since January 2011. The Transgourmet-Group is owning Howeg, Prodega/Growa CC, Transgourmet France, Fegros/Selgros and Rewe-Foodservice operating in Switzerland, Germany, Poland, Rumania and Russia



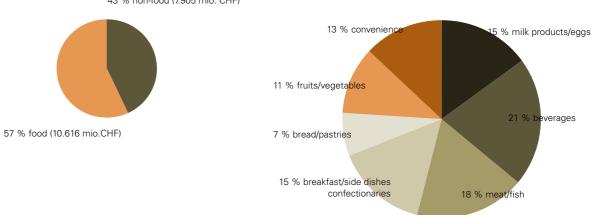


COOP's complexity of involvement.

COOP's geographical spread.

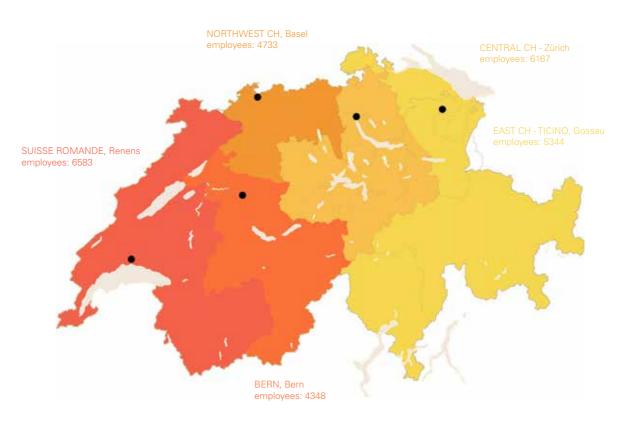


43 % non-food (7.905 mio. CHF)



COOP sales

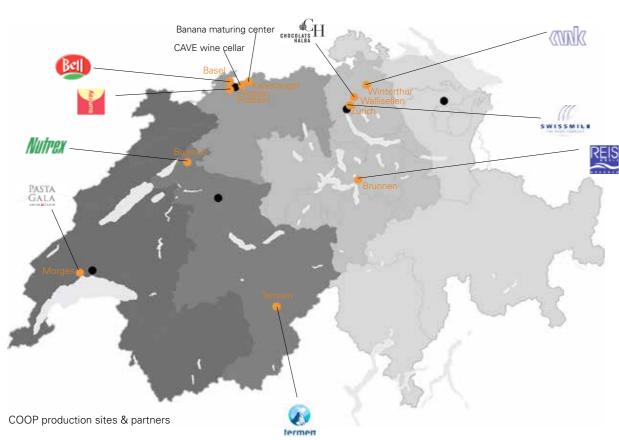
Detail sales volume on food in detail in 2010



COOP division

COOP organisation splits up in 5 sales/logistics/real estate regions, the regions don't have a legal entity but are part of the cooperative organizational structure





COOP bakeries

COOP is operating seven industrial bakeries located in Basel, Wallisellen, Castione, Aclens, Bern, Chur and Gossau. All of them together were producing 52.000 tons of bakery products in 2010. Furthermore COOP is possessing 36 "house bakeries & confectionaries" which are directly connected to the COOP supermarkets and are also exceptionally producing for the specific store. The industrial bakeries in Basel and Wallisellen will be discontinued and merged into one large wholesale bakery located in Schafisheim which is additionally launching the production of frozen bakery products as well. These account for 50 % of all frozen products in the COOP sortiment. Moreover the actual national distribution centers for frozen products in Givisiez and Hinwil will be discontinued and centralized as well. The result of this relocation is that all frozen and an immense part of the bakery products sold in all COOP stores in Switzerland will be dispersed from Schafisheim.

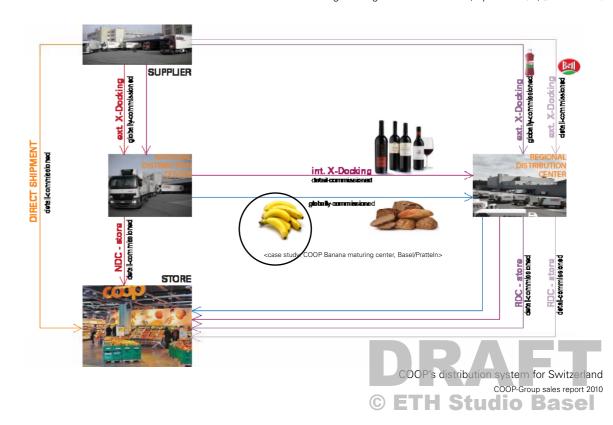


COOP's bakeries in Basel & Wallisellen (http://www.foodaktuell.ch)

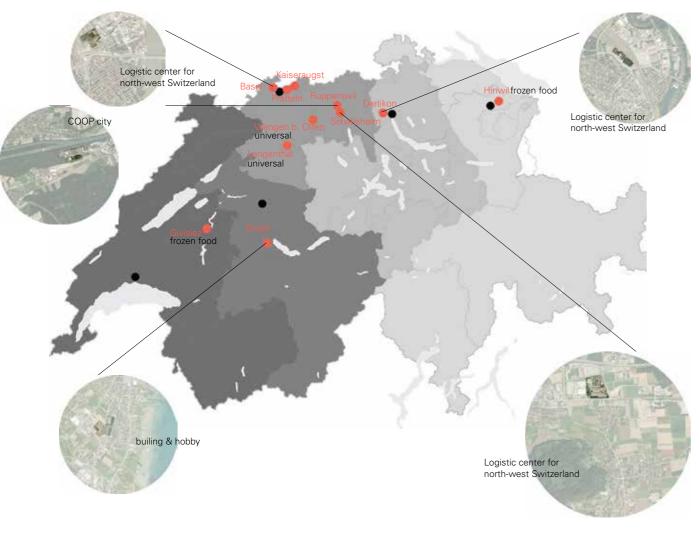




COOP's regional logistic center in Basel, Lysbüchel (http://www.etavis.ch)



- 289 -



COOP's national distribution centers and the supplying sources for the region of north-west Switzerland

Providing food for Metro-Basel

Currently all the logistics for the sales region of north-west Switzerland are carried out by two distribution centers: Basel/Lysbüchel and Schafisheim. A third distribution center in Dietikon is located within a radius of 60 kilometers. COOP's future perspective is to CENTRALIZE. The logistic strategy is to integrate both distribution centers Basel and Dietikon into the already existing one in Schafisheim. In the course of fusing both the logistic reagions of north-west and central Switzerland are also getting centralized to be the "mid logistic region". The local distribution center in Basel/Lysbüchel will be closed by 2015.

Intermodal transportation (HUPAC)

Basel as a turning platform and trinational hub provides infrastructural layout to all different means of transportation. This vantage point allows intermodal transportation/bimodal traffic (HUPAC) which involves the transportation of freight in an intermodal container or vehicle, using multiple modes of transportation (rail, ship, and truck) without any handling of the freight itself when changing modes. The method reduces cargo handling and improves security, reduces damages and losses and allows freight to be transported faster. A key benefit is also the reduction of traffic on transportation routes. The distances before and after HUPAC also need to be kept short in order to be efficient.

The unescorted intermodal freight transportation (UKV) is the biggest part of KV and stands for shipping with intermodal containers.



RAILCARE linking Bern-Brig, passing Lötschberg-Südrampe on the 17th of March 2009 (http://www.railspeedcargo.de/railcare.htm)

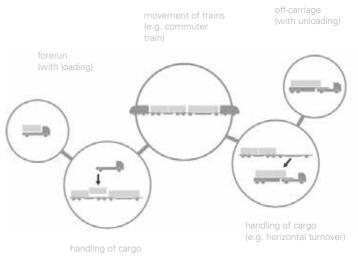
RAILCARE (COOP's freight trains)

In September 2010 COOP took over 100% of the capital stock of the "Railcare AG".

The relocation of road cargo onto rail cargo is resulting in minimizing 3 mio. of road kilometers carried out by trucks every year which is equivalent to reducing 4.800 tons of CO2 emissions.

The train system works directional. Due to the short length of the trains (max. 240m) they're more lightweight and able to go faster (120km/h).

COOP's vision is to keep up with road transportation via trucks within a radius of 90km from the distribution center as this proves to be the most economical strategy. But distances further than that are planned to be reached via RAILCARE and the model of unescorted intermodal freight transportation (UKV).







Bananas cells.



Case study: Bananenreiferei in Kaiseraugst

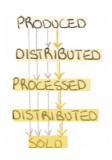
The company is located in Kaiseraugst, it is the biggest Bananenreiferei in Switzerland and the only one of COOP. It has 16 employees. Bananas are imported from Equador, Colombia, Dominican Republic, Costa Rica and Panama. Until a Banana plant bears fruit it takes about from 8 to 10 months.

In Switzerland bananas belong to the most popular fruits, and they are sold in the same quantity as apples.

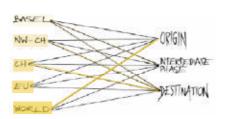
Switzerland imports 74.000 TONS per year.

Every year 10 KG BANANAS are consumed per person.





Bananereiferei's products' evolution complexity.



Bananereiferei's geographical spread.



Routes of the bananas boats.



"Bananenreiferei" process.

Bananas are imported by boat, the travel takes around 15-20 days. They are then brought to Switzerland by truck to the Bananenreiferei, taking around 2 days.

During the voyage the bananas are in a sort of "sleeping phase", they are stored at a temperature of 12°C, and the air has 95-96% of nitrogen.

Once that the bananas arrive at the Bananenreiferei they are first checked on their colour and their form. The rounder a banana is, the more old is it. The banana is cut in two pieces to check the inside colour and smell. The more water is resigning the more fresh is the banana. A part from the skin is also removed, from here they can check if during the trip the bananas were at the right temperature. For example if they were not tempered properly, some black dots will appear on the skin.

Then the bananas are put into the cells, inside there they are maturing and will stay there 5 to 8 days. They're having 26 cells and 3 transit cells.

In the first day of the maturity process there is ethylene in the air, so bananas can mature. The temperature is around 15 °C.

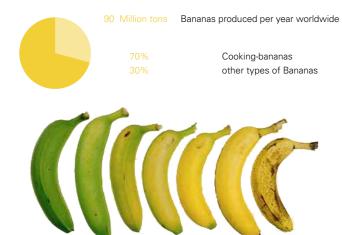
The maturation process is allways controlled by a computer system that shows their level of maturity.

Once the bananas are matured they are delivered to the COOP shops within a day.

Ordering bananas from central America takes around 3-4 weeks. They process cooking bananas, normal bananas and baby-ba-

They buy the bananas from Max Havelaar, COOP it the biggest customer of Max Havelaar, with 20% of market share.

Every year the Coop Bananenreiferei processes in total: 23.000.000 KG BANANAS.





Checking bananas quality.

15.9 20.8	BAK11 17.1 16.2 20.3	BAK 12 15,7 20,8	BAK 13 12,4 12,5 20,7 10	BAK 14 16,0 15,9 20,5
BAK 18 15.1 15.0 19.6	BAK 19 15,1 15,0 19,3 10	BAK 20 14.5 14.5 20.2 13	14.0 14.0 18.8 15	BAK 22 15.0 14.5 19.7 9
BAX 26 16.1	BAK 27 16,1	BAK 28 15,0	17,1978.11	BAK35 12.5

Table with maturity of bananas.



Bananas cells.





Banans in cell ready to be sold.





Bananas ready to be sold.



CONCLUSION



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- 296 -

IMPACT OF PROCESSING & DISTRIBUTION WITHIN A CITY

A STATEMENT ON FOOD FLOWS IN & OUT OF BASEL

TRANSFORMATION OF THE CITY

influencing the "hardware"

HISTORICAL DEVELOPMENT

Being positioned in the midst of an eclectic carpet of different landscapes accompanied by the Rhine the topographic actuality was decisive for the establishment of the city from the outset. The outlines of the topography are reminding on a bottleneck which gained importance with the development of the north-south connection arising Basel as a main access point in both directions to transit food and other commodities. Over the course of time and due to progressing developments in the modes of transportation infrastructural modifications were accomplished within the structural layout of the city. They were shaping the city's configuration in terms of market locations, trading strategies and processes as well as the functional layout of the city itself. During the period of the Roman Empire Basel possessed the only bridge crossing the Rhine for many centuries. Due to it's strategic location the city was in control of the corn imports from Alsace in the 16th century whereas the rest of Switzerland was becoming overpopulated and had few resources available.

PRESENT SITUATION

The relevance and distinction the city gained over time was evolving in Basel being a TURNING PLATFORM for frequented -food- flows through Europe. Does any city have this potential or is there a specific scenario responsible for this? To us, explanations leading to this extraordinary position are founded in Basel's beneficial urbanistic location. The metropolitan region in Switzerland is extending into German Baden-Württemberg and French Alsace being a meeting point of three countries. Next to its geographical situation on the trinational border is also defined by its socio-economic and politico-economic parameters.

The Rhine as the longest North Sea influent stream and also one of the busiest waterways in the world is crossing the city. Basel is also the first point where the Rhine is getting navigable, a fact that was contributing to the growing relevance of the city. Considerable amounts of commodities including agricultural products such as cereals, oilseeds and other foodstuffs are transported by boat every day. Basel is in the position of having three harbours in the city, the only city in all Switzerland that does so.

One could define chronological phases which comestibles necessarily have to go through in order to be available. It could also be questioned as accordingly: Who is responsible for which part of the orchestration? What needs to happen and where is the location for the happening?

To specify those phases:

- 1. ORIGIN. The source of the primary product.
- 2. INTERMEDIATE PHASE. Sum of all occurences after the product got "harvested", before the product is getting "destined"
- 3. DESTINATION. The final product is finding its purpose.

The complexity of involvement gives us an idea of the amount of processes comestible goods have to go through within their "travel". Cities and non-cities take different positions in defining their involvement in the three phases.

The metabolism of food in a city is influenced tremendously by the city's role in this orchester.

ORIGIN

The position of Basel being the source of the food chain is discussed within the second chapter - "Agriculture" - of this book.

INTERMEDIATE PHASE

Transit BASEL AS A X-DOCKING STATION.

Being situated on one of the most important north-south connections in all Europe, Basel is acting as a crossdocking station coordinating the transit of large amounts of food. Those flows just "pass through" without getting in contact with the metabolism of the city itself. Most of them act as non-contagious foreign bodies - almost uninfluencial for the well-being of the city in terms of its basic needs. In medical vocable Basel could also be understood as being a carrier of a disease without getting infected.

But disregarding the basic needs of a city to be functioning properly there are numerous consequences on an urban scale for a city being in this crossdocking position - both advantages as well as disadvantages.

Basel has an outlay on infrastructure far above-average which is not just for satisfying the needs of the city itself but for providing the basis for -food- transits in and out of Basel. This leads to the fact that much of the land in the city is used for infrastructure, be it on the outskirts of the city or - and that's the case in Basel - even in the middle of city structure. The result is that a lot of valuable land is "lost" on railtracks and much of the river bank is being dedicated to the harbours and the immense areas they require for their proper course of actions.

A positive aspect about a dense and fully developed infrastructural network like the one found in Basel is that the incomings and outgoings of food and and other goods as well as the dispersion of them within the city is warranted. So city profiles like this improve the communication within the city.

Storage BASEL AS A WAREHOUSE.

Basel's reputation as a turning platform for international distribution also influences the geographical positioning of distribution centers and warehouses. Influenced by the well-established infrastructural network supplying companies are attracted to locate their warehouses in the area, according to the concept of positioning distribution centers close to the most important and frequented routes. The COOP logistics are to be pointed out in here as an example. Their national distribution center where all imported goods arrive and many getting processed is located in Pratteln nearby the highway to Germany. The goods that are for the are of north-west Switzerland are then transported to the regional distribution center situated in the industrial area of Lysbüchel. Although being geographically on the opposite side of the city, the two locations are directly connected by the highway that crosses Basel.

Converting BASEL AS PROCESSOR.

Basel is home to a big range of various food processors sustaining even the biggest meat processor in all Switzerland (Bell AG). Although food processors are less location-sensitive than distributors (as visible on our overview map of processors in Basel in our second chapter) are they as well benefit from the advantages of the infrastructural layout that the city offers. This results in vast industrial areas spreading out of processing plants in many parts of the city not being concentrated in one area-mostly connected to one of the harbours and/or freight terminals.

The morphological developments of the industrial and infrastructural areas are having a significant impact on the urban figure, in the appearance of the urban landscape and furthermore even the architectonical approach. But other than that industrial landscapes are providing a certain kind of "flexibility" to the city as they are offering space for potential future developments when discontinuing industrial usage. Meaning they are possibly giving the space they are occupying now back to the city.

DESTINATION

The position of Basel being the destination of the food chain is discussed within the forth chapter - "Buying & Selling" - of this book.

TRANSFORMATION OF PEOPLE'S IDEOLOGY

influencing the "software"

AWARENESS: AVAILABILITY

People's consciousness about the complexity of today's food chain is highly questionable. They might argue against the intransparent nature of all the phases and actors involved in the process or simply with pure ignorance and disinterest in matters of food availability.

To point out a detailled example: Bananas are originated in Asia, transferred to Africa in 650 b.c., further "exported" to the Dominican Republic in 1516 and ever since their first arrival in Europe in 1899 they're available in our regions all year - no seasonal constraints. There is no need to questoin there availability as they seem to have a leasing contract with our stores.

AWARENESS: QUALITY

The current bio trend is showing an example of how consciousness of what one's consuming and the quality assurances of comestibles are shaping the market or vice-versa the market is doing its contribution in shaping people's ideology. In this specific case it is affecting the processing in a way that it gets highly controlled and strictly regulated. And the distribution sector is perceiving high pressure on the topic of "food miles" and how the reduction of food mileage is supposed to be the key factor for "green consumption". An assumption that is also highly questionable, but does have its authorization.

IDENTITY

"Local" got to be one of the most notedly words in relation to "food" within the last years becoming greater significance the more marketing is pushing in. Stick to your region and buy whatever's produced in there, not doubting that might not all of the aspects within that outlook are based on plain locality. The impact on processing is the shifted interest in products resulting in adjustments in production strategies and sources of supply. One example to this transformation would be the re-launching of "Regio Molkerei beider Basel" in 2010 focussing strongly on the idea of bringing local milk products into Basel's markets.

Basel has not only a cross docking function, but in also an immense quantity food is also processed and stored in the city.

