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CZECH Food Industry

Supplement of Czech Business and Trade



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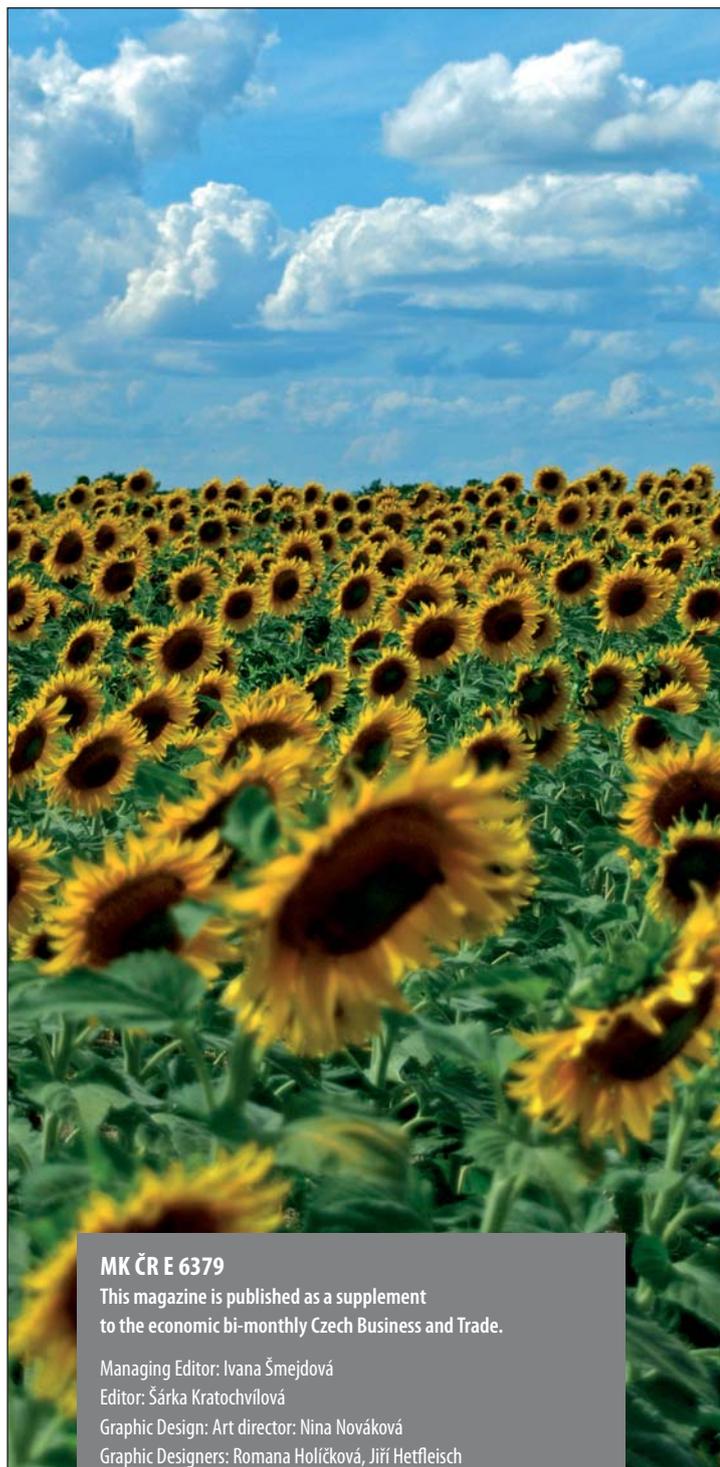
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Managing Editor: Ivana Šmejdová

Editor: Šárka Kratochvílová

Graphic Design: Art director: Nina Nováková

Graphic Designers: Romana Holíčková, Jiří Hetfleisch

Production: Anežka Zvěřinová

Address: PP Agency s.r.o., Myslíkova 25, 110 00 Praha 1

Czech Republic, Phone: +420 221 406 620

Fax: +420 224 930 016, e-mail: journal@ppagency.cz

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Dear Readers,

The Czech Business and Trade Supplement is focused this time on the Czech food industry. The sector is significant primarily for its strategic character of production. It produces foods which are generally in demand, essential in terms of consumption, as well as safe. They are quality products which are supplied not only to the Czech market, but also to the markets of EU countries and to other areas of the world. Logically, the largest importers of food products from the Czech Republic are neighbouring countries – Slovakia, Germany, and Poland.

The Czech Republic is also the country of origin of many specific products. The number of producers applying for designations of protection for their food products within the EU is rising. The Czech Republic has been very successful in obtaining these designations, the list includes several types of beers (Českobudějovické, Chodské, Pivo Černá Hora), as well as confectionery (Hořické trubičky, Štramberké uši, etc.), and others. This helps to increase the awareness of the good quality and origin of Czech specialities.

An overview of the famous Czech beer brewing industry is presented in the article Czech Beer - Star Among Beers. Another article reviews the long tradition of Czech wine making and the special character of Czech wines. Czech organic food market is developing quickly and offering business opportunities – information is provided in another article of the supplement.

The current supplement also offers reading on the Czech system of investment support in the food sector, as well as types of aid from European Union sources. The Research and Development section presents information on the high level of Czech science in the area of food research.

Šárka Kratochvílová
Šárka Kratochvílová



New Challenges for Food Industry

Josef Mezera, Institute of Agricultural Economics and Information
e-mail: mezera.josef@uzei.cz, www.uzei.cz

In terms of quantity, the output of the food sector in the Czech Republic accounts for only a relatively small volume of the overall EU-27 production performance (up to 1%), but in terms of quality it is unique, owing to its national specific products. These include e.g. the industrial production of a wide range of dumplings, the production of Czech beer, and other products receiving protection in the EU.

Sector Characteristics

On the national level, quality certified foodstuffs are labelled with the KLASA designation, now already well-known to consumers (more about the KLASA label on page 18). Significant progress was made in 2008 also in regional production, which is sold especially in local markets. Many of these products are organic foods. All products, of both crop and animal farming, must meet the high standards

of safety and are subject to strict supervision, directly in production as well as distribution.

The manufacture of food products and beverages (CZ-NACE 15) remains varied in terms of branches, as it processes various commodities and satisfies the diverse needs required by domestic as well as foreign consumer demand. The 2008 shares of the different production branches in total receipts from the sale of own products and services in the sector under review are given in Graph.

Position of the Sector Is Still Important

The position of the food sector in the manufacturing industry is still important, although, since 2000, it has not achieved as high growth rates in terms of receipts as some other manufacturing sectors. In receipts from the sale of own products

and services in current prices, the shares of the sector in the manufacturing industry amounted in the last years to 8.8% (2006), 8.7% (2007), and 9.0% (2008 share calculated from preliminary data, other indicators will be similar).

Certain grants were allocated in 2008 to stimulate development in the manufacture of food products and beverages. In order to enhance the position of the food sector it is advisable to continue the grants especially within the Rural Development Programme (more on www.szif.cz), but also from other national sources to strengthen the competitiveness of companies.

Foreign Trade Is Focused Mainly on EU

The foreign trade turnover in food products and beverages (CPA 15 - Classification of Products by Activity) more than doubled in the 2000-2008 period. However, the trade balance in this group of products worsened permanently from 2002 up to 2007 and in the latter year showed a deficit of CZK 25 billion (approx. EUR 1.002 billion). In 2008 this deficit was reduced by about CZK 1.4 billion (EUR 0.06 billion) to CZK 23.7 billion (EUR 0.95 billion). The reason for this increasing deficit is the fact that foreign trade balance in these products has been dominated by the volume of import, even though the long-term growth rate of export has been 8 p.p. higher than that of import. In the long term, the coverage of import by export slightly improved in 2008 (by 2.7 p.p., to 75.8%), compared to the year 2000 (73.1%).

Surplus in Beverages

Throughout the period under review since 2000, a foreign trade surplus has been recorded by dairy products and also beverages. Typical export commodities of this group, both to EU countries and third countries, are beer and malt. A favourable role in this respect is played especially by protection designations, which guarantee the high quality and uniqueness of the exported products.

In the territorial structure of trade in food products and beverages no major changes occurred in 2008 as compared to 2007. In 2008, just as in preceding years, the main export territory for CPA 15 was Slovakia with a 32% share.

Of import territories, the largest share in CPA 15 in 2008 was that of Germany with 27%. The EU market remains the decisive export and import territory and this market will continue to be dominant for food products and beverages also in future.

Overview and Competitiveness

The manufacture of food products and beverages remains an important segment of the Czech Republic's manufacturing industry. The production indicators of the sector (sales, value added) account approximately for 9% of the structure of the manufacturing industry. The sector has quite an extensive branch production structure, which is formed by a relatively wide range of companies dominated by small and medium-sized enterprises, and has a significant share in employment in all the regions of the country. Upon fulfilment of set conditions, small as well as large companies can take advantage of various programmes of support which contribute to modernisation and higher competitiveness in the branch.

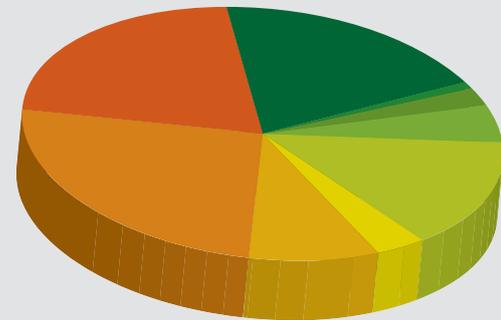
However, the competitiveness of the sector needs to be further strengthened. On the one hand, the Czech and other markets will experience an increased presence from agrarian countries which will make food products from agrarian commodities manufactured at relatively low costs (e.g. Poland), and they will compete by prices. On the other, there will be industrialised countries (e.g. Germany), which offer large volumes of products for further processing (e.g. meat for the manufacture of meat products and sausages) and ever larger quantities of products meeting the modern trends (wellness, convenience foods, which are foods prepared in such a way as to save time and energy for households and facilitate the preparation of meals), including organic foods.

Priorities of the Czech and European policy in the food sector include food safety, where implementation and supervision is based on food and veterinary laws that are applied by national and European offices and institutions.

Prospects of the Sector

In the European context, the prospects of the sector must be based not only on increased competitiveness, but also on the whole supplier chain, including ag-

Shares of branches in receipts from sale of own products and services in 2008 (%)



- 15.1 Production, processing, and preserving of meat and meat products **18.4**
- 15.2 Processing and preserving of fish and fish products **0.8**
- 15.3 Processing and preserving of fruit, vegetables, and potatoes **2.4**
- 15.4 Manufacture of vegetable and animal oils and fats **4.6**
- 15.5 Processing of milk, manufacture of dairy products and ice cream **14.7**
- 15.6 Manufacture of grain mill and starch products **3.6**
- 15.7 Manufacture of prepared animal feeds **9**
- 15.8 Manufacture of other food products **24.8**
- 15.9 Manufacture of beverages **21.6**

Note: data in current prices; Source: Czech Statistical Office, Ministry of Industry and Trade calculations

riculture, by improving quality and raising the added value of the production. It is also desirable to make full use of the unique products which meet the conditions of EU protection (Protected Designation of Origin, Protected Geographical Indication, Traditional Specialities Guaranteed), and products with the national KLASA designation, as well as products of regional brands or other brand-name foods. This production, too, needs to be supported by modern marketing instruments, including the use and expansion of company customer centres. According to Czech Statistical Office data, the sector under review achieved above-average results in terms of the share of innovative economic entities of the Czech Republic's business sector, in the innovation of both products and processes. At the same time, regional foods made to old recipes, and some other exceptional agrarian products, may contribute in future to the preservation of the national cultural heritage.



The Czech Republic Entices Foreign Investors to Food Products

Jiří Sochor, CzechInvest, e-mail: Jiri.Sochor@czechinvest.org, www.czechinvest.org

France has wine and cheese, Italy has pasta, the Austrians have Leberknödelsuppe (liver dumpling soup). And the Czechs have beer. However, the food sector in the Czech Republic has much more to offer nowadays – including opportunities open for new investment.

The food sector currently accounts for almost 9% of the overall industrial production in the Czech Republic and employs 9% of people working in the manufacturing industry. Companies from 50 to 249 employees predominate, and those employing 250 to 999 people have a similar position. The shares of larger or smaller enterprises in employment are less important.

However, the food industry has a weaker position in terms of foreign direct investment inflow. With EUR 2.58 billion, it has a 7.8% share in the total investment in industry. Besides that, the food sector has been successfully reducing personal costs in the total costs of the industry over the

long term – in 2000 they made up 10.3%, and seven years later, in the period for which the latest data are available, they were 8.2%. Both factors represent many opportunities for new investors.

Attractive Destination

In recent years the Czech Republic has been one of the most favoured destinations for foreign direct investment. Ernst & Young has regularly ranked it among the ten most attractive countries for investors in the world, a recent UNCTAD survey has shown that with EUR 7.3 billion of new investment in 2008, the Czech Republic was the 32nd most successful country in attracting new investment – a truly excellent result given the size of the Czech economy.

Most investors coming to the Czech Republic are strongly export-oriented. The figures speak clearly – 90% of new investors export at least 95% of their output. The target markets are mostly European Union

countries. In this respect there had existed a snag before 2004.

Whereas all limitations on the export of other goods than food products from the Czech Republic were dropped in 1995, the lifting of barriers on the export of food products and beverages had to wait until May 2004, when the Czech Republic became a member of the European Union and, thanks to this, the whole European market opened for it completely. The situation had been different until then.

Three Stages of Inflow

The inflow of foreign investment to the food sector in the Czech Republic saw three principal stages. The first started with the Velvet Revolution in 1989 and continued in the first years of the transformation of the planned economy into market economy – in other words, privatisation. It was used by companies of well-known names, such as Danone, Nestlé or Unilever, to enter the Czech market.

The second stage, which started in the mid-1990s and concluded with the Czech Republic's accession to the European Union, brought a substantial decline in the inflow of investment in the food sector, when most new projects consisted chiefly in modernisation or expansion of existing production facilities. An exception was the privatisation of Pilsner-Urquell, which was purchased by the brewer SAB-Miller. Greenfield direct investment was modest, one case was Largo Foods, which has been manufacturing potato crisps for the European market in the Plzeň area in the west of the Czech Republic since 1999.

The third stage began with the Czech Republic's entry into the European Union and the related elimination of trade barriers. The country's central location in the middle of the EU, combined with quality infrastructure, started to play an important role in obtaining investment in the food sector. In addition, the last few years have greatly bridged the gaps between the purchasing power of the former EU15 and new EU members. This has attracted the attention of food investors to Central Europe, often from rather exotic countries, taking advantage of the possibility of easy export to the whole EU market.

Exotic Expansion

The north-west of the Czech Republic – that is regions closest to the border with Germany – has thus been picked for investment by the Shanghai Maling company of China, which started to produce luncheon

meat for the whole of Europe there. In the case of Shanghai Maling, the possibility to label its packaging with "Made in the Czech Republic" or "Made in EU" was particularly attractive.

Another non-traditional investor in the same region is the company Tivall. Based in Israel, it produces semi-finished kosher foods in north-west Bohemia. The projects are by no means small. Shanghai Maling invested ten million dollars in its plant, the Israelis spent several times more on the needed technologies – over 130 million dollars in all.

The number of people employed in the food industry in the Czech Republic totals at present about 130 000. In 1994 the industry had some 160 000 employees. The main reason for the growth was the privatisation of small companies and easing of the rules for enterprise after the fall of communism. Interestingly in 1990, that is just after the Velvet Revolution, the food industry employed 125 000 people. Employment in the sector is now slowly approaching this figure again.

Productivity Is Rising

Although employee numbers are declining, the production of the companies is increasing. Since 2000 it has risen by 12% in the sector. Naturally, the reason is the rising productivity which has grown by the rate of more than 5% annually in the sector in the last few years.

A major advantage of the food industry in the Czech Republic is the well-educated people employed in it. Food production

technology is taught at several universities and higher vocational schools, and other specialists are trained by a number of other vocational schools.

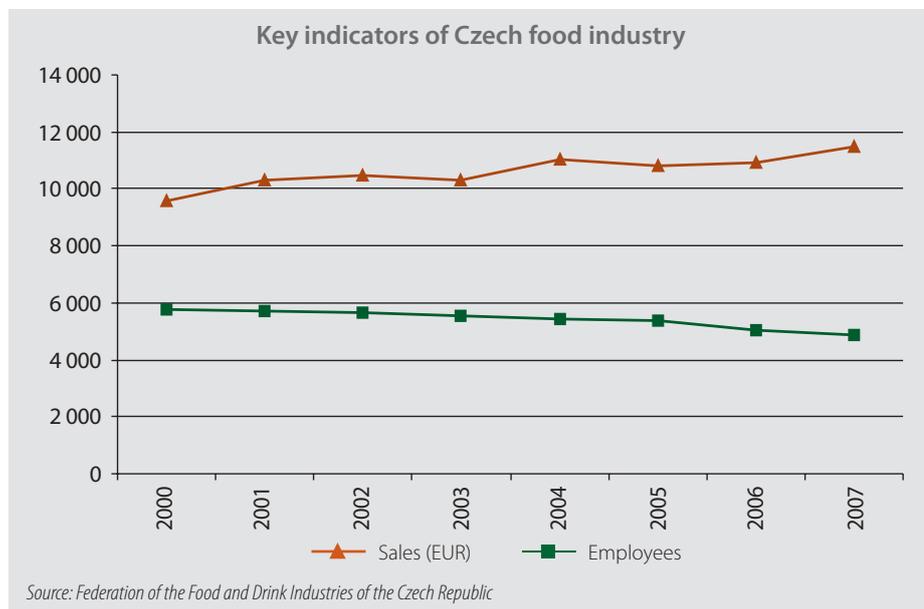
The Czech Republic makes the highest investment in research, development and innovation of all the countries of Central and Eastern Europe. The same is true about the food sector. What is more, thanks to foreign investment the bulk of the research is shifting from basic to applied research. The highlight in the food sector is biotechnologies, and this is where the Czech Republic is really strong. According to the very first evaluation of its kind by the EuropaBio organisation, the European Association for Bioindustries, and Venture Valuation, the Czech Republic, together with Hungary, Poland, and Estonia, is a leader in biotechnology research among the new EU member states plus Croatia and Turkey.

Support to Investment

Since 2004, the Czech Republic is a member of the European Union, the country is part of the Schengen area and in 1999 it joined NATO. Besides that, the Czech Republic is a member of other international organisations, including the OECD, the United Nations, the World Trade Organisation and the International Monetary Fund.

The Czech system of investment incentives, including investment in the food sector, includes tax reliefs, grants to job creation, allocations for training and re-training, and also for the construction and development of commercial real estate. It is focused on investment in the manufacturing industry, as well as on companies wishing to set up a research and development centre, or a shared business services centre.

Besides that, it is possible to use support from European Union sources – entrepreneurs can take advantage especially of the Operational Programme Enterprise and Innovation (OPEI). Both types of support – the incentives as well as the OPEI – are managed by the Investment and Business Development Agency CzechInvest. However, its services go far beyond that. The Agency specialists know how to help to choose a suitable location for business, to search for Czech business partners, and can offer aftercare for investors who already operate in the Czech Republic.



Organic Food - Demand in Market Segment

Dana Večerová, Federation of the Food and Drink Industries of the Czech Republic (FFDI CR)
e-mail: vecerova@foodnet.cz, www.foodnet.cz

It is an indisputable fact that organic food is increasingly favoured by consumers and its production and consumption is rising. The number of organic food producers as well as organic farms is growing at a fast pace.

Green Light for Organic Farming

Czech Republic data speak clearly – in 2007 alone the number of organic food producers rose to more than 250, which is 100 producers more than in 2006, and in the first half of 2008 the number was already 375. The number of organic farms rose at a similarly impressive rate (from 1318 in 2007 to 1946 last year) and so did the share of land used for organic farming (from 7.35% – year 2007 to 8.04% – year 2008). Considering that 10 years ago there were about 350 organic farms and the share of land made up just a little over 1%, then it is obvious that the green light is on for organic agriculture.

Organic As an Opportunity

The Czech market in organic food is developing quickly and offering Czech producers a significant business opportunity. Surveys have shown that consumers associate the designation of organic food most often with products free from chemical additives, grown without chemical fertilisers and generally healthy, natural, organically produced food. Although consumer demand is rising fast – the percentage of Czechs buying organic food is 4.8% at present (it rose from 3% in 2007) and 30% of the population perceive organic products as a category, the domestic supply is not sufficient. The share of organic food in overall food consumption in the Czech Republic is 0.55% (for comparison in Austria it amounts to 8%, in Germany 3.5%, in Poland 0.1%).

Many organic foods for Czech shops are still imported from abroad because Czech organic farming has been unable to cover the demand with its own production. From the viewpoint of the food sector the production of organic food is a very advantageous line, especially for small and medium-sized enterprises which can focus on various specialities and manufacture products in smaller series. If we add support which is

provided to manufacturers, we see this as an opportunity for many enterprises that can thoroughly change the focus of their production and will certainly find consumers for their organic products.

Support for Organic Food Production

In order, among other reasons, to enhance support for organic food production, the Federation of the Food and Drink Industries of the Czech Republic set up in 2008 the Organic Food Section to promote the growth of this production. Beyond doubt it can be stated that Czech manufacturers have many years' experience in food production generally, and food industry enterprises are well prepared professionally as well as technologically. Thus, the main tasks of the Section will be support to producers in eliminating obstacles to the production of Czech organic food and promoting Czech organic food in the market, support to marketing and building of confidence in Czech organic food. The Organic Food Section also plans to analyse existing problems and obstacles and propose solutions that will help to increase the sale of domestic organic food on the Czech retail market, including public catering and gastronomy.

Environment Does Not Suffer

On the other hand, it should be noted that all Czech food products meet quality and safety standards. In this respect there is thus no difference between conventional and organic food. However, with the philosophy of organic farming, organic food is produced by methods friendlier to the environment – which means without the use of fertilisers, chemical treatment of crops, etc. In any case, the Federation of the Food and Drink Industries of the Czech Republic is convinced that organic food forms a demanded segment of the market which has a future and the potential to develop.

THE ORGANIC FOOD SECTION HAS ALREADY DEFINED ITS SPECIFIC OBJECTIVES:

To strengthen public awareness of organic food so that in 2012 at least 90% of the population have confidence in products labelled as organic food and become aware of the advantages organic food brings to them personally and to society as a whole.

To boost development of the organic food market and increase the share of organic food produced in the Czech Republic so that:

- by 2012 organic food accounts for at least 2% of food consumption in the Czech Republic,
- by 2012 organic food produced in the Czech Republic accounts for at least 70% of all organic food consumption in the CR.



The Czech market in organic food is quickly developing

Enhancing Competitiveness of Czech Food Industry

Miroslav Koberna, Federation of the Food and Drink Industries of the Czech Republic (FFDI CR), e-mail: koberna@foodnet.cz, www.foodnet.cz

The Federation of the Food and Drink Industries of the Czech Republic represents the interests of entrepreneurs in the area of food production and farm produce processing in relation to public administration bodies and bodies and organisations of the European Union. It provides for its members information and services especially in the area of food-related laws, commercial and industrial policy, the environment, and problems of the common market.

The activities of the FFDI CR include mainly representation of the interests of the food industry and those processing agricultural production. It also provides expert and technological consultancy in the area of farm produce processing, drinks and food production, training and education activities, support and application of science, research and development, and innovation. It is also involved in projects funded from European and national sources; in an effort to raise the competitiveness of the Czech food industry, it helped in 2006 to establish the Czech Food Technology Platform, which it is also coordinating.

Largest Production Sector in Europe

The European agro-food industry is the largest production sector in Europe. The importance and potential of the food industry in the Czech Republic are documented by the following 2008 data: its 8.8% share in employment provides approximately 103 000 jobs in the Czech Republic. The food industry, as the fifth most important sector, accounts for 7.9% of the overall sales of Czech industry with a turnover of EUR 10.08 billion.

Together with basic farm production and directly and indirectly related suppliers, the agrarian sector represents an important part of the national economy. Given the need for the use of local natural resources, the agrarian sector represents an extraordinary certainty for the national economy in terms of both income and employment, regardless of its changing share in the gross domestic product.

Change in Approach

Given the traditions and real potential of Czech food production, the direction that appears to be correct and rational in the light of the globalised world food trade is the use of substitution approach to food consumption. It is based on the reasoning that the volume of a food consumer's intake cannot be significantly and dramatically increased, but that it can be altered according to the consumer's lifestyle, with the aim to increase his satisfaction and improve his health. If we focus on consumers in developed economies, who live in energy and nutritional sufficiency from the viewpoint of sustenance, the substitution in food consumption is a basic starting point for the whole Czech agro-food industry. Targeting the segment of the discerning and educated consumer in a developed economy is a necessity as well as an opportunity for the economic success of the sector.

Development of New Types of Food

The potential of the existence and growth of the Czech food industry is essentially linked with intensive research and development into new types of foods with a high added value. For consumers this added value is connected with benefits in the health area, comfort

The agrarian sector represents an important part of the economy.



in consumption, speed in food preparation, etc. At present there are already a number of scientific and specialised institutions working in the Czech Republic's food sector. Their activities in the area of food safety have been coordinated at government level to some extent by the strategy for food safety. Such an approach makes the activity of the institutions much more effective. The low effectiveness of the transfer of results from research to practical applications is due to the insufficient economic strength of most food enterprises, which have so far been mostly preoccupied with their economic and commercial issues or low-degree innovation (changes of additives, flavouring, etc.).

Current Aid in Funding and Consultancy

Within the framework of support to cooperation with the scientific research sector, 10 projects worth a total of EUR 16.04 million have been submitted under the Rural Development Support measure I.1.3.2, agreed within the Czech Technology Platform. Their implementation will decisively influence the competitiveness of the applicants, most of which operate in meat processing and dairy industry.

In 2009, a Projects Consulting Centre of the Czech Technology Platform was established with the support of the Ministry of Agriculture to provide applicants from among food manufacturers with latest information about projects for innovation support, technology and know-how transfer, to mediate contacts, organise training, and to help directly with project implementation.



Czech beer is specific and unique

Czech Beer – Star Among Beers

Radek Pavlík, Černá Hora Brewery

e-mail: asistent@pivovarch.cz, www.pivovarcernahora.cz

Czech beer is specific and unique, and has a world-wide reputation, which is due largely to advantageous conditions for the growing of malting barley and hops on a specified territory, and also to the high professional skills of the workers which are handed down from one generation to another.

Tradition of Czech Beer

Beer brewing on Czech territory was first mentioned in 993, when the Benedictines produced beer and wine at the Břevnov Monastery. The first historic proof directly related to beer brewing is the foundation deed of the first king of Bohemia, Vratislav II, for the Vyšehrad Canonry in 1088. At the beginning beer brewing was a privilege of individuals (e.g. burghers and nobles), and in the 14th century maltsters and brewers set up their guilds and beer production started to flourish. An important landmark was the second half of the 19th century, which brought the development of production by bottom fermentation. The typical properties of beer produced in this way have been completely different from beers brewed until then, and beer brewing thus experienced a further development.

The Czech Republic ranks first in the world in beer consumption, with about 161 litres of beer drunk in the country per person per year (however, the figure is greatly influenced by tourist visits to the country because beer takes second place after historic sites in statistics showing why people visit the Czech Republic).

Situation in Czech Beer Production

Czech beer production employs about 7 500 people in both small and large breweries, and further thousands in related sectors. Breweries are also important in the country's economy as payers of excise taxes. At present, 52 breweries (from large to small ones) operate on the Czech Republic's territory and there are another 60 restaurant breweries, where beer is brewed directly, and also consumed, in the restaurant.

A major contribution to the preservation of the traditional beer brewing craft is made by small independent breweries. They are part and parcel of the Czech Republic's historic heritage. Shared interests, and the solution of legislative problems, has inspired the establishment of the Czech Association of Small Independent Breweries, which associates a group of small breweries with a capacity of 200 000 hectolitres. Due to their size and nature, these breweries use hand-manufacturing in some parts of the technology flow. They rank among the oldest breweries in the Czech Republic and constitute prominent construction and architectonic features of their regions because most of them are based in small towns and villages.

Beer Specialties

Regarding products, small breweries, due to their capacity, are capable of preparing varied new products. They search them not only in flavours but also degrees, and thus supplement the rich

spectrum of Czech beers because the majority of large breweries do not have the production of specials in their programmes. A supplementary programme of many breweries is the manufacture of quality non-alcoholic beverages, and at present even spirits made from beer. For example, the Černá Hora Brewery manufactures the beer distillate Pivní režná, two types of liquors and the beer spirit Monte Negro, the Chodovar brewery makes the original beer brandy Chodská pivovice, the Eggenberg brewery produces the beer brandy Eggenberg, etc.

Beer at Present

For their history and product variety, breweries are sought-after tourist attractions and become popular destinations especially for foreign tourists arriving in the traditional beer producing country. In an effort to promote tourism, many breweries are establishing quality facilities – hotels, restaurants, relaxation programmes, bicycle rentals, etc. The tourist development brings new jobs and supplementary services, and makes the branch a major regional employer.

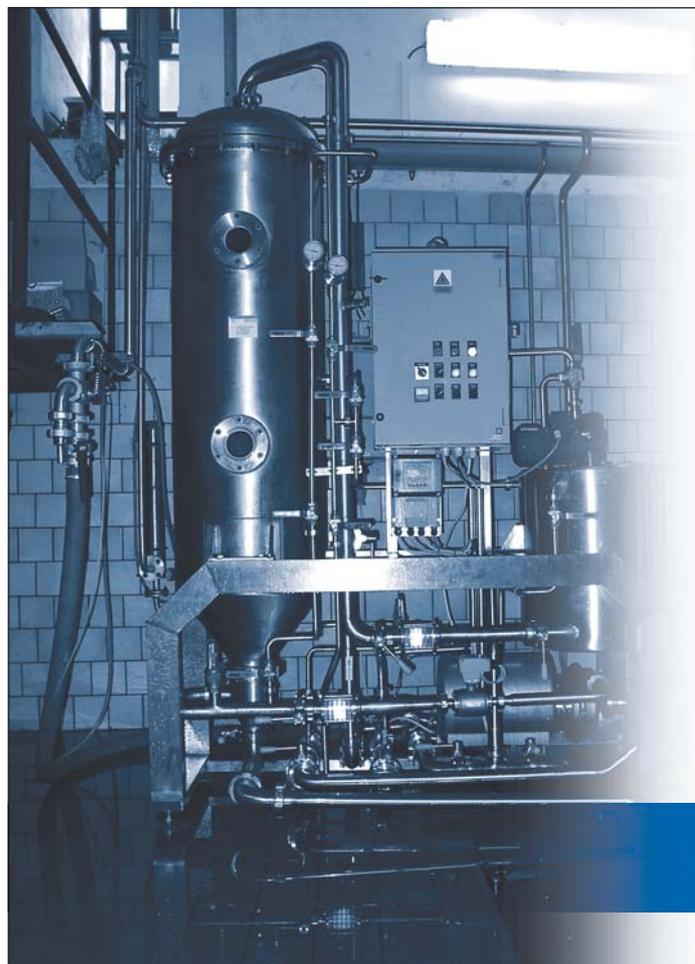
After the Czech Republic's entry into the EU, many small breweries found new marketing opportunities because they make quality products from quality materials. On the other hand, they are facing fierce competition from supermarket chains, which are pushing prices down and importing cheap beer from abroad that does not match the quality of the product that is undoubtedly represented by Czech beer.

In order to help preserve small breweries in the EU states at favourable conditions, they founded, in 2003, the Association of Small and Independent Breweries in Europe. Members include the Czech Republic, Poland, Romania, and Switzerland. Negotiations are being held on the accession of other states, as the EU pressure on the producers of the frothy drink is increasing.

The classical beer production with a share of hand manufacturing will accompany us even in the ever more modern, faster, and technically more advanced future.

At present, the beer industry is faced with a state intervention in the economy of breweries – an increase in the excise tax. Furthermore, VAT is to rise by 1%. These steps will affect especially small breweries. It will mean production cuts, because the price of beer will increase and possibilities will open for the import of cheap low-quality beer from abroad. Some small breweries may be forced to close down as a result.

The Černá Hora brewery is yet another producer that has obtained the EU Protected Geographical Indication, with the authorisation to present the name of Černá Hora beer on its labels. The protected indication guarantees that a product is partly or completely produced in a certain geographical area. The EU has already registered 21 Czech brands and the Czech Republic ranks among the most successful member states in the award of protected indications.



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Long Tradition of Czech Wine Production

Martin Půček, Secretary of the Czech Union of Wine Growers, e-mail: martin.pucek@svcr.cz; www.svcr.cz

The Czech Republic has a long tradition in viticulture and wine production, the first documented records about wine dating here from the beginning of the AD period. During the reign of Roman Emperor Marcus Aurelius Probus, his soldiers grew wine on the territory around Mikulov, now a prominent wine-producing town, so that they did not have to import the palatable drink from as far as the area which is now Italy. Some of the grapevine seeds found at excavation sites in the region date from the period of the Great Moravian Empire (approx. 8th century AD).

Further Development

In the 14th century, Charles IV brought grapevine to the Czech Lands from Burgundy, and this moment was followed by great development in wine production. During the period of rule of this emperor, the area of vineyards in Bohemia and Moravia expanded, and this development culminated in the 16th century

when there were about 25 000 hectares of vineyards altogether. In 1890, the vine pest phylloxera appeared in Moravia for the first time and its rapid migration resulted in a substantial depletion of grapevine areas. During World War I the area continued to shrink, so that in 1930 there were fewer than 4 000 hectares of vineyards. State support to grapevine planting from 1994 helped to enlarge the area to 18 000 hectares, with the production potential of some 19 300 hectares.

Present State

The Czech Republic is divided into two wine-producing regions – in Moravia there are about 17 500 hectares of vineyards, in Bohemia grapes are grown merely on vineyards of some 700 hectares. About 20 000 growers are registered in the whole area, of whom approximately 18 000 own and tend only about 2 000 hectares of vineyards. The rest is distributed among small, medium-

sized and large wineries. Wine production is approximately 750 000-850 000 hectolitres per year, which is about one-quarter of the overall consumption. The rest has to be imported to the Czech Republic, about 90% of the import is from countries of the European Union. Most of the imported wine originates in Italy, as shown by the graph.

In recent years, the Czech Republic has increased its export of wine, which now amounts to about 180 000 hectolitres, 95% of which go to Slovakia. Per-capita wine consumption in the Czech Republic has been rising, which is clearly good news especially now, at the time of the economic crisis. In 2000, consumption amounted to 13.2 litres per person and year, whereas the consumption of 20 litres is expected for 2010. The trend of growing consumption in the Czech Republic contrasts with the trend in the former EU15, where consumption is declining. This is true especially about the

Wine production in the Czech Republic is dominated by white wines



large wine producing countries, which have the tradition of a higher wine consumption.

White Wines Predominate

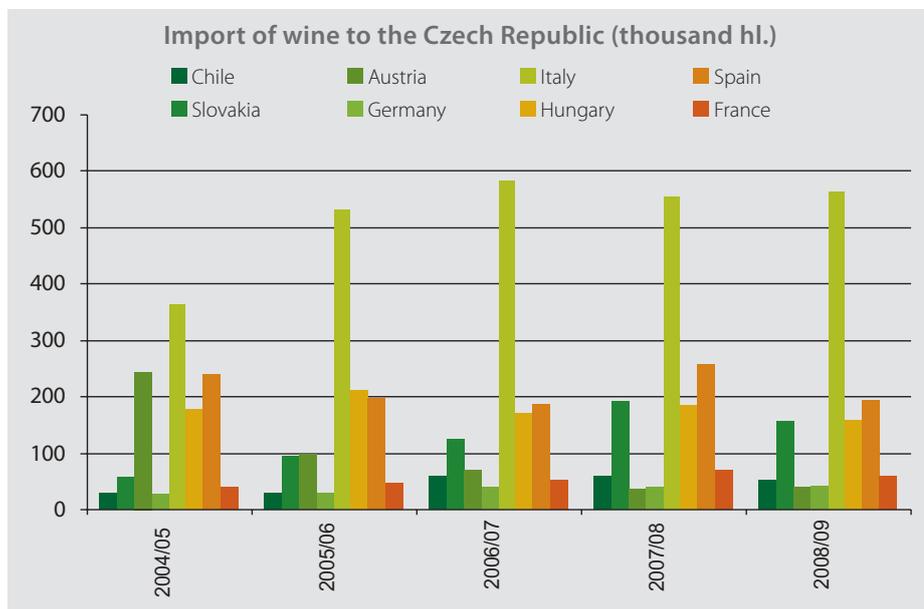
Wine production in the Czech Republic is dominated by white wines (grape varieties Müller Thurgau, Veltlínské zelené - Grüner Veltliner,

Ryzlink vlašský - Welschriesling), because the succession of cold nights and warm days during harvest creates very interesting aromatic substances in these wines. Thus they offer consumers enticing aromas and elevating quality. In red wines, the country's producers can compete internationally especially with fresh fruity wines (Svatovavřínecké - Saint Laurent), which are deep red in colour and their flavour is not overshadowed by a too high alcohol content that can be found in southern type wines. A rare line specific to the Czech Republic is the production of natural sweet wines, so-called ice and straw wines. The Czech Republic is one of the few countries in the world where climatic conditions allow the production of ice wines, when grapes can freeze down to

the required minus -7 °C. In straw wines, the gathered grapes are laid on straw or hung in well-ventilated space, the evaporation causing sugar concentration. The successes of Czech wines in prestigious foreign competitions show their undisputed competitiveness in the world. Czech wines bring high prizes from whichever prestigious foreign competitions they attend.

The Czech Republic is not an export country in the area of wines. Though it is a small wine-producing state, the branch employs hundreds of people and the output is worth about EUR 160 million annually. Domestic producers make quality and competitive products, as documented by successes in competitions abroad. This year, the Pálava wine from the Vinselekt Michlovský, a.s. company won the title of Absolute Champion at the Terravino 2009 international competition in Israel. Other gold, silver, and bronze medals were won by wines from the Czech Republic e.g. at the Vinalies Internationales Paris 2009, Vinitaly Verona 2009, Concours Mondial de Bruxelles, International Wine Competition San Francisco, and other competitions.

The phenomenon of wine tourism has now reached also the Czech Republic, which has been greatly developing it in recent years. The National Wine Centre in Valdice has created printed materials and the project of Wine Tourism Certification is designed to favour facilities which meet clear rules and standards on the national level. All this with the support of the Winegrowers' Fund as an institution designed to promote viticulture and wine production.



Pig Breeding in the Czech Republic and its Tradition

Michal Šprysl, Roman Stupka, Czech University of Life Sciences Prague,
e-mail: sprysl@af.czu.cz, stupka@af.czu.cz

Pigs were kept already in ancient times and had an important position among other farm animals. It is certain that domestic pig farming existed in Egypt already at the times of the first pharaohs. The first Chinese emperor Huangdi also spoke about pigs and said that "...we keep pigs for wealth, meat, fat, manure, and joy...". Large pig herds are also mentioned in the Bible in the Gospel of Matthew. There is evidence in Europe that pig farming was very advanced. Practically up to the late Middle Ages, pork made up 90% of all food of Europe's inhabitants.

Historical Development of Butcher's Trade

In ancient civilisations, the human populations were gradually diversified by their different activities, and various professions thus developed. The butcher's trade arose in this way as an important part of the production of food from the meat of kept animals. Its emergence gradually passed from the shaman and priest, who offered meat in sacrifice to deities, over guilds that have existed in Europe since the Roman times, up to contemporary modern slaughterhouses and meat industry establishments, includ-

ing small private enterprises slaughtering farm animals, cutting the meat and processing it into various products.

Traditional Farming in the Czech Republic

Pig breeding in the Czech Republic has a long tradition. It ranks among prominent branches of animal farming, where meat production takes a foremost place. Pig farming does not ensure only meat production, but also represents the use of a large part of grain produced in the country, which helps to stabilise Czech agriculture. Pig farming has shown a declining tendency in recent years. In 1990, the number of pigs kept in the Czech Republic totalled 4 800 000. Since then the pig population has been falling and in 2008 was at 50% of the 1990 figure. Pork consumption has dropped as well since the 1990s, when it amounted approximately to 50 kg per person per year. In the following years, consumption decreased to 41 kg per person per year. Domestic pork production in the Czech Republic covers 75% of consumption, in 2002 it amounted to 99.9%. Foreign trade deficit in pork and live pigs has increased in recent years. Despite a slight in-

crease, or stagnation, in export, the import of both pork and live pigs, mainly piglets, has been rising steeply.

In current figures, the breakdown of the overall meat consumption of approximately 80 kilograms per inhabitant in the EU is 41% pork, 28% poultry, 27% beef and 4% other meats.

Czech Pig Slaughtering Feast

A strong tradition surviving in Czech villages is the classical home pig slaughtering. It is very popular in Czech rural areas. The Czech Republic was thus satisfied with the success achieved during the Czech EU Presidency - the approval of a regulation which revises the rules of the treatment of animals at slaughter, and thus allows the continuation of the traditional Czech home pig slaughtering.

The genuine Czech home pig slaughter is a feast for all those involved. It can be done at any time, but the right one takes place in the cold months. This social event, which has roots in the ancient pagan times of sacrificial offerings, has two principal actors – the pig and the butcher. The latter not only stuns the pig, bleeds it out and cuts it up, but during the day prepares for the feast participants traditional and popular dishes, such as the classical pig slaughter goulash, red soup, head cheese, meat boiled in water, Czech-style blood and liver sausages (jelita, jitrnice), etc. Naturally, many participants do not resign themselves to the role of spectators, they help with the prepara-

Pig breeding in the Czech Republic has a long tradition



tion of hot water for the pig's scalding after exsanguination, with blood stirring, peeled barley boiling, turning, washing and skewering of intestines for the blood and liver flavoured sausages, lard rendering, onion, garlic and horseradish grating, up to the final laying of the table for the consumption, and the preservation of surplus food from the pig slaughter. The meat and fat must be left to lie in cold at least for several days, before it can be eaten, salted, or marinated for home-made smoked meat, bacon, salami, and other special foods.

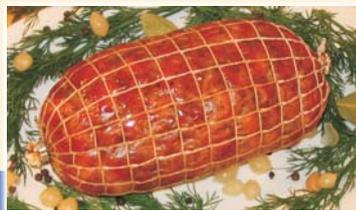
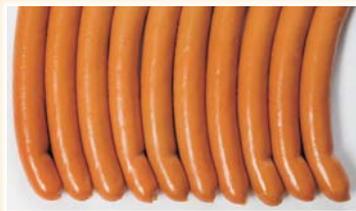
It is obvious that in home slaughtering practically everything from pigs is used. The preparation of the products is simple, quick and easy. Obviously, the Czech home pig slaughter, just as all activities focused on the production and consumption of safe and tasty foods, must comply with the laws in force. And, as organic foods are being increasingly promoted at present, the Czech traditional pig slaughtering can be seen as their important source.

RECIPE: HOME-MADE BLOOD SAUSAGES WITH PEELED BARLEY (JELÍTKA):

Boil fresh pork jowls, sides, feet and skin. Pick everything, and grind the meaty parts finely, the fatty ones coarsely. Also boil the offal, and then grind them finely with cracklings and fried onion. Stir all the ingredients with pre-mixed peeled barley and blood. Add spices (crushed caraway seeds, ground allspice, cloves, marjoram, garlic), salt, fat from the rendering and fatty stock. Stuff the mixture into casings from large intestines and close with bits of wooden skewers, so that each piece weighs 220 grams. Cook the product in hot water at approximately 90 °C until blood-coloured stock ceases to pour out of the casing when punctured. After removal rinse the sausages and store them in a cool place.



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Current Trends in Food Research

Jitka Moravcová, Institute of Chemical Technology Prague
e-mail: Jitka.Moravcova@vscht.cz, www.vscht.cz

Czech food science represents a high standard, food research is currently focused on several areas which share the need for availability of sufficiently sensitive and selective analytical methods. These can then be used for analyses of non-homogeneous samples of inconsistent composition that foodstuffs undoubtedly are.

Man's health and life expectancy are greatly influenced by the quality of food and nutritional habits. Viewing food with the eyes of a chemist, we see complex material which contains thousands of vari-

ous chemical compounds the number of which is increasing with storage, heat treatment, and industrial processing. Further substances are added to food intentionally as additives and others find their way into the food chain as contaminants arising from human activity in areas not related to food, or as a result of the activity of undesirable microorganisms. A separate chapter is food adulteration. Research into hygienic and toxicological aspects of food receives great attention all over the world; when the words "food analysis" are sent to the Web of Knowl-

edge database, it returns over 43 000 articles starting from the year 1945. Czech food science takes a top position in the list, ranking 22nd among the authors of the mentioned number of articles is Jana Hajšlová from the ICT Prague, who is a reputed Czech expert in food analysis. Further proof is the fact that Czech scientists regularly organise prestigious European congresses in Prague. The 6th conference Chemical Reactions in Foods, focused on the main reactions occurring in food manufacture and storage was held in May 2009 and was attended by 140 scientists from 18 countries. The fourth edition of the conference Recent Advances in Food Analysis was held in November 2009. The previous one, in 2007, was attended by 380 scientists from 37 countries. The main themes were



analytical and bioanalytical methods for the monitoring of contaminants, allergens, additives, colouring substances, and mycotoxins in food, genetically modified organisms, and new food products.

Current Trends in Food Research

Current food research trends can be divided into several basic areas: nutritional and sensoric quality of foods, hygienic-technological quality and safety of foods, new technologies and intelligent packaging materials, quality of raw materials, and sanitation. It is necessary to have sufficiently sensitive and selective analytical methods that can be used for food analysis. It is advantageous if an analytical method can be automated and quickly introduced by

control laboratories as a routine method. Methods currently gaining prominence have been developed within the so-called "easy-to-use" strategy, they are quick methods of simple execution which enable even non-professionals in improvised conditions to test foods or their raw materials for the presence of harmful substances. Let us choose three out of the large number of food research themes which illustrate the focus of current Czech research.

Immunoanalysis for Every Day

Immunoanalysis is a very sensitive and selective analytical method based on interaction between antigens and antibodies. Its advantage is that it can be easily automated so that laboratories can perform hundreds of analyses per hour. On the other hand, it can be transformed e.g. into single test strips whose colour reaction can confirm or exclude the presence of a monitored substance within 5–10 minutes. Commercial availability of these test sets is limited for the time being, but the examples of freely selling pregnancy tests or tests proving the use of narcotics promise a great future for this method. The development of immunochemical methods is focused on the detection of contaminants in foods, on the monitoring of the presence of allergenic proteins, pathogenic microorganisms, or on proofs of food adulteration. For example, such a quick test can discover the presence of pork in beef or of cow's milk in goat's milk. The principle of immunoanalytical methods is also the basis for biosensors whose main purpose is to detect pathogens.

Substances with Effect on Endocrine System

Food includes as a natural component phytoestrogens, compounds found in plants which affect the endocrine system and thus can have an effect on the course of civilisation diseases, such as breast or prostate cancer or diseases of the cardiovascular system. On the other hand, they can have a favourable effect in suppressing the negative symptoms of menopause, and especially for this reason the market is now flooded with dietary supplements based on soy and red clover phytoestrogens. The presence and effect of phytoestrogens depends on nutritional habits, as well as on the content of these biologically

active substances in foods, their raw materials, and on technological processing. This is the reason for the increased interest in suitable analytical methods for the determination of isoflavones, coumestans, and stilbenes, which are based mainly on liquid chromatography combined with mass detection and immunological methods. There is another group of compounds that have been spread in nature by man's industrial activity and which contaminate foods of animal and plant origin. These xenoestrogens originate mainly from the production of plastics, and include e.g. bisphenol A, 4-nonylphenol or phthalates. These chemically stable compounds surviving in the environment for a long time are also targeted in the development of suitable analytical methods.

Prospects for Sucrose Utilisation

Sucrose is a traditional commodity of the Czech Republic, but in recent years the production of the sugar industry has been greatly reduced and there is sufficient quantity of beet or cane sugar, which is sucrose, on the world market. Because sucrose is made from renewable sources, and technologies for many tonnes' production are in place, new applications are being sought. One of the lines is the development of biodegradable plastics, polymers of L-lactic acid which produce biomass through the action of enzymes in a defined environment. Another possibility is the biotechnological production of 1-butanol as second generation fuel from intermediate products of the sugar industry. Lastly, sucrose esters of fatty acids are a biodegradable alternative to tensides, which are used nowadays in laundry detergents. In addition to analytical methods, this area touches on microbiology (selection of suitable microorganism, strain breeding, immobilisation), membrane processes (recycling of microorganisms) and other separation processes.

Formerly, we consumed foods that used raw materials from our immediate surroundings. In the present globalised times, food is transported from one continent to another, and the supervision of quality and health standards is thus gaining in importance. Czech scientists are proving with their results that we have no reason to worry about the future of food science.



Products awarded the KLASA quality mark

Food Quality under KLASA Label

www.eklasa.cz, e-mail: info@eklasa.cz

The national label of quality KLASA, introduced by the Ministry of Agriculture of the Czech Republic as an instrument of state support to Czech food production in 2003, is awarded only to tested food products which meet the requirements for above-standard quality and safety, as well as the relevant standards of the Czech Republic and the EU.

Producers wishing to obtain the KLASA label for their products are required to submit various documents, especially a quality management certificate of the ISO scheme or a certificate within the critical points systems (HACCP, BRC or IFS), and must at the same time comply with the practical rules for production, hygiene, or agriculture. Products for which applications for the KLASA label award have been submitted are then evaluated by an Assessment Commission comprised of

independent food experts. These requirements are identical for all applicants from the EU. If any of the input components of the product are not of Czech origin, it is required to submit also a certificate of the origin and specification of these components.

Tested Products

At its foundation, the KLASA scheme was seen as a marketing instrument enhancing the value of food products carrying the label, but also wishing to inform consumers that, compared to similar products, they were buying a product of a tested quality. The label guarantees the offer of quality and tested products, in a process aimed at winning the confidence of consumers and buyers. Maintaining this confidence is an essential prerequisite for the development of the food sector and ensuring of

competitiveness on the domestic as well as foreign markets.

The first KLASA certificates were ceremonially awarded at the 2003 Earth the Provider exhibition in České Budějovice, at present (autumn 2009) the national KLASA label is borne by a total of 1 323 products from 224 Czech and Moravian manufacturers.

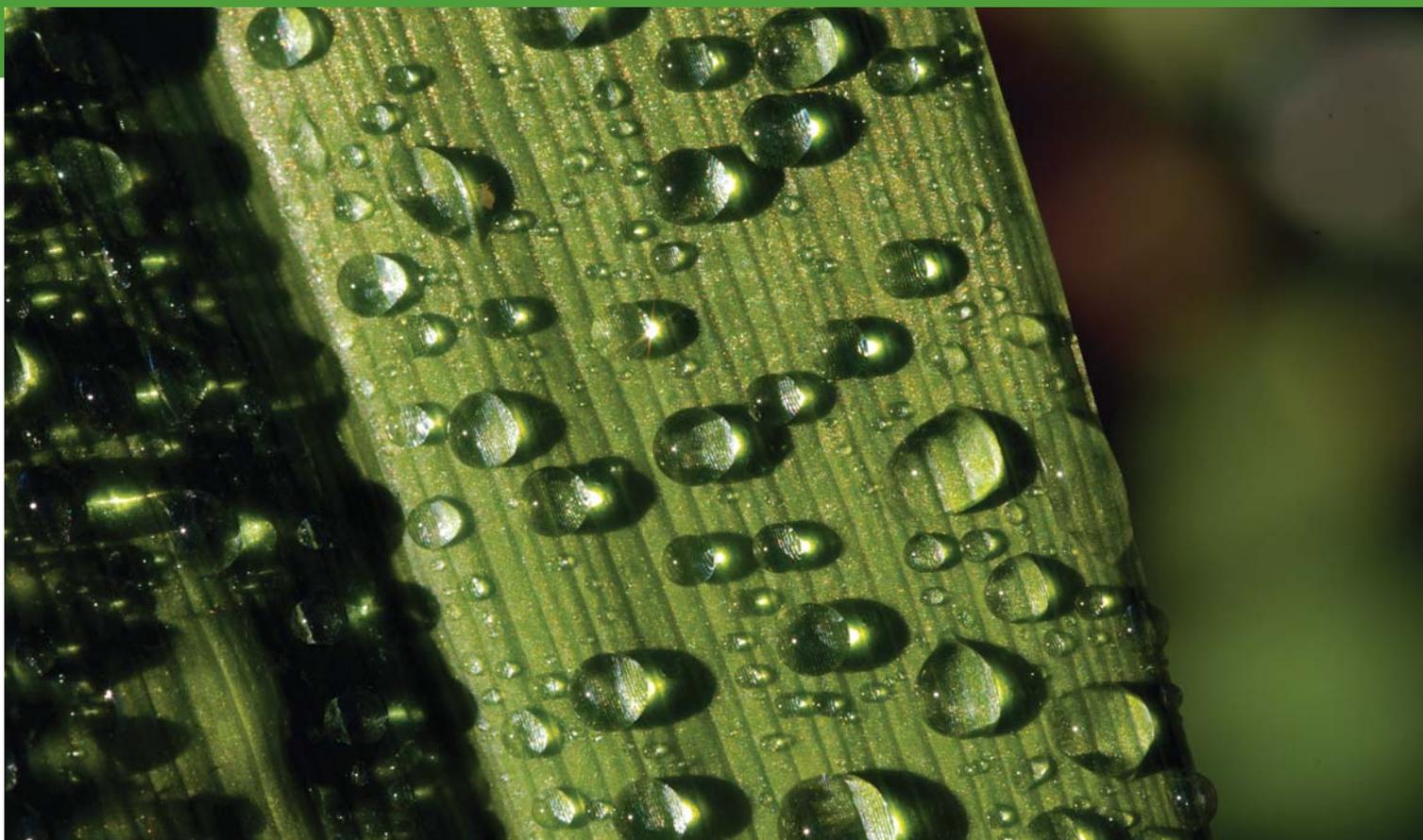
Change of Conditions from 2007

From 2007, the year of expiry of the Czech Republic's exemption concerning national support granted upon the country's entry into the EU, promotion of the KLASA label may not use a reference to the domestic origin of foods. Terms for the award of the KLASA label have thus been amended and are primarily aimed at the support of products showing exceptional quality characteristics which increase their added value and make them unique compared to other products available in the market. The purpose of the support is especially to establish non-discriminatory conditions for obtaining the KLASA label, which ensure a free movement of goods in the EU market.

New Campaign

Within the new campaign, KLASA is primarily focused on direct contact with consumers. They regularly encounter KLASA-labelled quality products during various cultural events and road shows which are held throughout the Czech Republic. An important part in the campaigns is sales promotion activities in hypermarkets. In 2009, they took place for example in Globus and Interspar shops with the aim to promote the segment of foods of exceptional quality bearing the KLASA label. Special merchandising helped to provide guidance to consumers in the sales area. Consumers could also learn how to distinguish quality foods and could taste them on the spot.

A consumer survey conducted by the TNS AISA company in the spring of 2009 showed that KLASA is the best known quality label of Czech food products, that over 80% of consumers are currently aware of the existence of the label, and more than one-third of consumers actively search for KLASA in their shopping. At the same time, a half of the respondents are willing to pay a higher price for foods bearing the KLASA logo, the acceptable increase is up to 10% of the price of the product.



Research and Development Takes Advantage of 7th Framework Programme

Anna Mittnerová, Institute of Chemical Technology Prague (ICTP),
e-mail: anna.mittnerova@vscht.cz, www.vscht.cz/homepage/veda

The Czech Republic, where research and development reform was launched in March 2008, is now amending its law on research and development support from public funding and is establishing the Technology Agency of the CR which, next to the Grant Agency of the Academy of Sciences, is to serve exclusively research and development support.

Aid to Czech Science from Brussels

Research and development in the CR does not depend solely on Czech public financing. Since 2004, when the country joined the EU, Czech entities can draw upon quite large funds for research, development and innovation directly from Brussels, within integration into the European Research Area (ERA). These resources can be obtained through participation in international projects. Proposals for projects are submitted in response to calls for proposals for the implementation of projects within Community programmes. Calls for the submission of proposals are made by

the respective European Commission Directorates General, the submitted projects are evaluated and those which succeed in evaluation process receive funding. Brussels money thus needs to be "won through calls" with good projects, proposed and subsequently implemented by international consortia formed by members of research organisations as well as representatives of industry or agricultural enterprises.

7th Framework Programme for Everyone

The largest Community instrument for funding research, development, and demonstration activities with a budget of EUR 53 billion is the 7th Framework Programme. It covers an extensive range from basic to applied research in all branches of science, including food, agriculture, fisheries, and biotechnologies. The programme is open to a wide range of organisations in the public as well as business spheres, and even to individuals,

and is not limited e.g. to less developed regions. In most cases, however, a basic condition for participation in a project is the creation of an international consortium to implement it.

The extensive 7th Framework Programme is grouped into five basic specific programmes, two-thirds of the overall budget is earmarked for the specific programme COOPERATION, which supports research based on international cooperation within Europe and other partner countries, through projects of trans-na-



tional associations from the industrial and academic fields. Another specific programme, IDEAS, is designed to support "frontier research" exclusively on the basis of scientific excellence. Projects can be implemented also by outstanding scientists from non-European countries, but they must be implemented within the EU. Interesting and unparalleled in the Czech system of science and research is the specific programme PEOPLE, which is a financial tool of the Community to promote mobility of scientists within the European Research Area (ERA), stimulate researchers' career development and cooperation between industry and academia. The specific programme CAPACITIES is to enhance Europe's competitiveness through support for research infrastructures, cooperation for the benefit of small and medium-sized enterprises, regions of knowledge, research potential, and science in the context of the awareness of society. The specific programme EURATOM covers fusion energy research (especially the ITER project), nuclear fission and radiation protection and other actions in the nuclear field undertaken by the Joint Research Centre (JRC).

Good Practice from ICT Prague

At the Research and Development Department of the ICT Prague Rectorate, "KAMPUŠ+" was founded in 2007, the Office for Administrative and Management Support for university scientific teams' participation in the 6th and 7th Framework Programmes, under the contribution of a grant from the Ministry of Education, Youth, and Sport, the EUPRO programme (www.vscht.cz/homepage/english/main/research/basic_info).

Thanks to the good services provided by this Office, research teams from this university are actively participating in international consortia implementing projects under the 6th and 7th Framework Programmes. It is not by chance that the only project in the Czech Republic being funded from the IDEAS specific programme is being implemented at the ICT Prague, in the newly established Chemical Robotics Laboratory. A five-year grant of EUR 1.64 million was allocated by the European Research Council last year to František Štěpánek (35), a young associate professor, for the implementation of the project CHOBOTIX. An interdisciplinary team of scientists and students is thus developing a concept of chemical robots, particles ranging in size from units to tens of micrometers that can move autonomously in their environment and selectively exchange molecules with their surroundings. The development of these chemical robots and their subsequent practical application might bring about revolution in medicine, environmental protection, and other areas. Very active teams are also working at the Faculty of Food and Biochemical Technology. Its highly specialised sections are focused on food quality and safety, and especially on the development of fast and effective methods for the detection of dietary risks and identification of sources of food and feed contamination. Accredited laboratories at the Department of Food Chemistry and Analysis and the Department of Biochemistry and Microbiology are involved in many projects of the 6th and 7th Framework Programmes. The results of the projects are to help improve the quality and safety of European food, and thus increase consumer confidence.

Poll of Successful Companies Operating in Food Industry

DESTILA s. r. o.

Kaštanová 127, 658 96 Brno, www.destila.cz

Turnover: approx. EUR 4 million

Number of employees: 80

Contact: Mr Stanislav Tošner

phone: +420 281 861 299, e-mail: tosner@destila.cz

Export: Approx. EUR 1.9 million - mostly Russia, the Ukraine, CIS countries, Slovakia, Cuba, and Peru

DESTILA, a company established in 1947, has been producing machinery and equipment for the food industry throughout its existence - at the beginning it made distilling equipment for the manufacture of fruit spirits, then kieselguhr powder filters for beer, filtration units for wine and fruit juices, and machines for the baking industry. After 1990, it added a programme for the production of complete minibreweries for restaurants, which is currently the pilot programme of the company.

DESTILA has exported a large part of its production throughout its existence. Currently it exports between 30-40% of its output, mostly minibreweries to Russia, Kazakhstan and the Ukraine. Within the EU, DESTILA products are exported mainly to Slovakia and the Baltic countries.

What services are provided by your company?

Besides the manufacture and sale of its own products, DESTILA has its own wholesale of gas heaters and components, is the exclusive importer of alcohol meters of the Slovak TEPRON company to the Czech Republic, and sells IMMERGAS gas heaters.

Technological units supplied by the company - minibreweries, grower distilleries and filtering lines - are assembled on delivery and put into operation. About thirty minibreweries have been supplied to foreign countries and, if required by the customers, we also provide brewmasters as well as the complete range of materials needed to brew quality Czech beer. Servicing of our products during as well as after the guarantee period is a matter of course.

What has the year 2009 brought for your company?

2009 has been one of our most successful years. This is evident not only from the highest profit in recent years, which amounted to about EUR 360 000, but also from the fact that the company has succeeded in penetrating new markets.





JEMČA a. s.

Znojemská 687, 675 31 Jemnice, www.jemca.cz

Turnover: approx. EUR 12 million
Number of employees: 81
Contact: Mr Miroslav Křivánek
 phone: +420 602 122 987, e-mail: obchod@jemca.cz

The company Jemča a. s. was established at Jemnice in Southwest Moravia in 1958. A landmark in the company's existence was the year 1992, when it was privatised. Despite the difficult market conditions, Jemča has since that moment expanded the range of the offer of tea specialties and fruit trees and strengthened its position of a Czech tea market leader. In 2006, Jemča was bought by the Tetley Company – number one in teas in the United Kingdom and one of the most prominent tea brands in the world. Jemča a.s. still has the largest share in the volume of teas sold on the Czech market. It manufactures more than 50 products. Every year it packages over 36 million boxes of tea, which is more than 1.3 billion tea bags.

Your firm is number one in teas on the Czech market. What do you think are the reasons for your success against your competitors?

Jemča a. s. has its packaging plant at the company's headquarters in Jemnice, and can thus quickly respond to market changes, demands and development. Another advantage is the long-time tradition and loyalty of our customers. Jemča has won many prizes for its customer-oriented activities: the most significant among them is the Family Gold Seal label, which is awarded on the basis of consumers' opinions, and Jemča won it in three consecutive years. It has also been ranked among the 100 best Czech firms in the food industry.

Could you mention innovations in your range of products?

Innovative products include e.g. the whole Jemča VIVA teas line, where the individual teas are wrapped in hygienic envelopes. In addition, we are constantly developing and preparing tea collections of various flavours (fruit, herbal, and green teas).

RUDOLF JELÍNEK a. s.

Razov 472, 763 12 Vizovice, www.rjelinek.cz

Turnover: approx. EUR 19 million
Number of employees: 110
Contact: Mr Zdeněk Chromý
 phone: +420 577 686 120, e-mail: marketingove@rjelinek.cz
Export: Export accounts for 28% of the overall sale of own products - export to Slovakia 61%, to Europe 33%, and to other countries 6%

RUDOLF JELÍNEK is a manufacturer of alcoholic drinks, especially fruit spirits. The company's products are well known in all corners of the Czech Republic as well as abroad. The spirits production in Vizovice, where the company is based, has a tradition of more than four hundred years. The local climate is ideal for fruit trees, plums in particular. Plum brandy, or slivovitz, started to gain prominence in the 19th century and its quality became known to all of Europe. The company has established Distillery Land, a visitors' centre which offers several types of tours, a museum, and a company shop, all of which are designed for private visitors, organised tours, presentations, parties and events, including catering.

Could you present your products to foreign readers?

RUDOLF JELÍNEK is currently one of the largest producers of fruit spirits in the world. The company's offer includes not only slivovitz (white, gold) in various types of packaging and of different vintage, but also excellent pear, cherry, apricot, and apple brandies and other non-traditional spirits. Latest new products include Plum Vodka, Plum Liqueur, Williams Pear Brandy, the herb liqueurs Praděd, Praděd Bitter and Luhačovická bylinná, Gold Cock Whisky, and other interesting drinks.

Is there any special offer?

As early as 1934, Jelínek slivovitz was already exported overseas. It won the favour of American customers in New York, primarily thanks to kosher slivovitz, which lasts to the present day. Kosher products are now a firm part of the company's portfolio. The offer includes five-year old kosher slivovitz, both white and gold, ten-year-old kosher slivovitz, or Pear Williams kosher brandy. Rare products are represented by the line of original spirits. It includes e.g. strawberry, blueberry and raspberry brandies, as well as beer brandy, rowan or quince brandy, etc.





KAND s. r. o.

Opočenská 32, 518 15 Dobruška, www.kand.cz

Turnover: approx. EUR 7 million

Number of employees: 70

Contact: phone: +420 494 621 112, e-mail: info@kand.cz

Export: Export is part and parcel of the business operation - we export to Slovakia, Latvia, Slovenia, Austria, and Hungary.

KAND s. r. o., a subsidiary of the company Develuy Senf und Feinkost GmbH, operates two plants in the Czech Republic. The facility in Dobruška produces ketchups, sauces, and cranberry compote, and the plant in Chlumec nad Cidlinou makes mustards. As a member of a multinational group, the company has introduced additional products to the market - vinegars, horseradish relishes, syrups, and an original McDonald's ketchup.

What do you consider as the recent greatest success of your company?

In 2009, we obtained the KLASA certificate for the KAND ketchups line and MALVA mustards. This certificate confirms the quality of our products. We also hold the HACCP and IFS certificates. Equally, we are proud of the 2007 Product of the Year prize that we won in Latvia for the KAND Sweet Tomato Ketchup 520 g.

Every year we introduce new products to the market, this year it was the ketchup for kids, KEPUČ (more tomatoes, calcium, less sugar and salt), and then a rose hip sauce - excellent with smoked meats and venison.

What are your plans for 2010?

For 2010 we are aiming for the extension of the KLASA certification to other products of our firm.

BLATENSKÁ RYBA spol. s r. o.

Na Příkopech 747, 388 01 Blatná, www.blatenskyryba.cz

Turnover: approx. EUR 6.6 million

Number of employees: 90

Contact: phone: +420 383 422 511, e-mail: blatenska.ryba@blatna.net

Export: The company trades with both domestic and foreign firms. Its production of poultry and frozen foods and about 50% of live fish is sold in the Czech Republic. The other half of live fish is exported, mainly to Germany, Belgium, Italy, Poland, France, and Slovakia.

The company Blatenská ryba spol s r. o. operates on almost 1 600 hectares of artificial ponds and lakes in Southwest Bohemia. Fish farming in Blatensko (Blatná area) has a long tradition, the ponds and lakes used by the company were founded in the Middle Ages. Blatenská ryba spol. s r. o. produces about 850 tonnes of fish for consumption annually, mostly carp, but the market also appreciates other fish species of commercial importance - tench, pike, amur, bighead, zander, catfish, eel, perch, and others. About half of the production of live fish is exported. A modern processing plant manufactures a wide range of products from freshwater and sea fish. The company is engaged in the wholesale of cooled, frozen, and smoked products.

What do you consider as your company's forte?

"Healthy food from clean waters" - this is the company's motto which Blatenská ryba spol. s r. o. is trying to implement consistently. The clean and healthy environment of Southwest Bohemia, with ideal geological bedrock, is the basic precondition for the production of very tasty fish. The classical methods of fish farming with the use of natural pond feed and cereals guarantees fish with the character of a natural product, close to requirements for organic foods.

Can you give foreign readers an idea about the tradition of fishpond farming in this country?

Most artificial ponds and lakes in the Czech Republic originated during the so-called "golden age of Czech fishpond culture and management", i.e. in the 15th and 16th centuries, but the history of many ponds is certainly much older. At that time already Czech carp was exported as a rare delicacy. The transport of fish in the area of Blatná was so frequent that the road was known as "Fischerstrasse" (fishermen's road).





■ PIVO PRAHA, spol. s r. o.

Podskalská 10, 128 46 Praha 2, www.pivopraha.cz

Turnover: approx. EUR 0.6 million
Number of employees: 7
Contact: Mr Václav Potěšil, e-mail: pivo@pivopraha.cz

PIVO Praha, spol. s.r.o. is an engineering company established in 1991 by experts with a more than 20 years' experience in the brewing industry. The company has been a member of the Czech Beer and Malt Association since 1994. The company's main activities consist in complete engineering works for breweries, including technological solutions, standardisation of beer production and quality, technical design of new equipment, and design and delivery of minibreweries. The company maintains its own collection of brewing yeast, which contains strains for the production of lager as well as various strains for the manufacture of ale, weizen and stout type beers. The company owners also own the small brewery with a restaurant "Pivovarský dům" in Prague.

What beer specialties are on your offer?

We can offer e.g. wheat, coffee, cherry, vanilla, and banana beers, the Pivní sekt sparkling beer, hot beer grog, etc.

What is your company proud of?

- the concept of the beer distribution system in the O2 Arena in Prague – an original solution for beer distribution for 18 000 spectators
- design of minibreweries in Vietnam, Japan, and the Philippines
- development of alcohol-free beer by vacuum evaporation for the Černá Hora brewery
- winning bid in a tender for a consulting firm for a brewery in Bebede, Ethiopia
- turnkey deliveries of 11 minibreweries
- development and production of more than 30 types of beer, most of which have been launched in the Czech market

■ VINIUM a. s.

Hlavní 666, 691 06 Velké Pavlovice, www.vinium.cz

Turnover: approx. EUR 12 million
Number of employees: 100
Contact: Mr Tomáš Klumpar
 phone: +420 737 207 707, e-mail: tomas.klumpar@vinium.cz
Export: The company exports wine to Slovakia, by means of its subsidiary Vinium Slovakia.

The history of the company dates back to 1936, when two hundred farmers founded the wine-making cooperative VINOPA in Velké Pavlovice. After the period of a national enterprise under communism, VINIUM turned into a joint-stock company in the first wave of the voucher privatisation in the 1990s. In 2004, the shareholders completed a large investment in advanced technology. The company thus received the most modern equipment for the production of grape wines in the Czech Republic. In May 2007, VINIUM a.s. became property of České vinařské závody a. s. Grapes for this winery grow on the area of almost 2 500 hectares in all vine-growing districts of Moravia. VINIUM a.s. concentrates on a broad spectrum of Moravian varieties. White grapes are processed by the method of direct pressing and controlled fermentation. Blue grape varieties are processed by the traditional method, as well as by fermentation in special vinificators, or by the thermo-flash method – a unique modern technology.



What are the objectives of your company for the future?

Although consumers increasingly tend at present to favour low-priced wines, an interesting trend of the last few years for the VINIUM Velké Pavlovice company has been the growing production of wines with special attributes. In 2009, the sale of wines with attributes makes up 17% of the total sale of non-sparkling wines, i.e. about 700 000 bottles. The 2008 vintage won a total of 43 medals and awards at renowned national and international competitions. For example, at the WINEFEST in Mělník, Vinium Velké Pavlovice won the best wine collection prize.

What support does your company receive from the EU?

We see support in the harmonisation of laws concerning the labelling of food products, which should simplify the work with exports. However, there has been excessive pressure from foreign wines lately and competition is increasing.



WE PROVIDE



Production and installation of PPP tunnel baking band ovens adapted to suit the customers' needs, with various types of baking bands (wire-mesh, link plates, jalousie, metallic, stone [granite] plates) for bakeries and patisseries to bake quality brown and white bread, baked to hearth or in pans, various bakery products, pastry, biscuits, gingerbread, cookies, confectionery products, savoury snacks, etc.

Deliveries of complete technological units for bakeries and patisseries, including lines for toast and moulded bread.

Deliveries of lines for baking biscuits for dogs and other animals.

Production and installation of steam generators.

Repairs and deliveries of components for PPC ovens, including new control panels, burners, and electrical equipment.

Production and assembly of indirect heat dryers of grain, maize, rape-seed, poppy-seed, and cereal seed.

Deliveries of equipment for waste heat utilisation.



J4 s.r.o., Průmyslová 96, 503 02 Předměřice nad Labem, Czech Republic
 phone: +420 495 581 137, 495 581 139, fax: +420 495 581 321, e-mail: j4@j4.cz, j4@j4.eu

www.j4.eu www.j4.cz



ARTOS CZ, spol. s r.o.



ARTOS®

ARTOS CZ, spol. s r.o.
 Újezd 65, 789 85 Mohelnice
 Czech Republic
 phone/fax: +420 583 430 147-9
 e-mail: artos@artos.cz

www.artos.cz

We are a company operating in the area of bakery technologies. Our principal activities include the manufacture, sale, and servicing of bakery equipment. We provide complete designs of equipment tailored to our customers' requirements, construction work, technical development and consultancy. Our best selling products are the dough kneaders of the Marathon and Silverline series, and also our new Materials Storage Systems. We supply technologies for the largest bakery and retail chains in the Czech Republic, and provide professional round-the-clock service for our clients, carried out by a team of trained technicians. We cooperate with foreign suppliers who rank among the most important names in Europe. We rebuild machines from renowned manufacturers. Artos ... your world of bakery technologies.

- We manufacture:**
- Dough kneaders Marathon 145 and 200 ■
 - Dough kneaders Silverline 200 and 300 ■
 - Materials storage systems ■
 - Air-conditioning equipment ■
 - Single-purpose machines ■
- We rebuild machines:**
- Werner & Pfleiderer ■
 - Fortuna ■
 - Koenig ■