



# Analysis of the regional food and drink industries

Partner organization/region: Tolna County Development Agency – Tolna county, Hungary

Date: 2020.

Introduction:

Please describe the answers as well as possible. By reading into this topic you will get a lot of information, so you can get a good overview of your region. Through dialogue with local food industries, local facts and numbers can be collected. The information requested in this list will help you to get to know your region better. These questions are intended to help you.

1. General description of the current status of the food sector in your region

Take a look at your region in terms of food industry: Which branch of the food sector is the biggest/most important in your region?

Tolna county has favourable agricultural capabilities, therefore it is an excellent area for producing raw materials for its food industry. Thanks to the favourable soil conditions and the modern methods of cultivation, nowadays Tolna county has outstanding wheat- and corn production rates. Its system of corn production is well-known and recognized worldwide. For a long time, the agriculture-oriented region was only known for its cattle farming and wine production in the country. Because of the county's environmental conditions, wine grape growing, the flourmill- and baking industry and the meat-, milk-, vegetable-, and fruit processing industries have long traditions. With its animal farming, the county plays an important role in providing raw materials for the meat-, milk-, and leather industry.

Some of the county's more important products, that are connected to agronomy and food production and have significant market potential:

- The traditions of red pepper growing in Bogyiszló
- Pálinka (spirits) of Brill Pálinka House, Harc
- "Hungarian Rhapsody" desserts, Dombóvár
- Hungarian Spotted cattle, Bonyhád
- Kadarka of Szekszárd (red wine)
- Szekszárdi márc (traditional honey-based natural syrup)
- Kékfrankos of Szekszárd (red wine)
- Bikavér of Szekszárd (red wine special cuvee)







In 2018 in Hungary, the biggest part of the food production industry, 75.5%, were micro-enterprises. Out of the 4526 companies, 17.0% were small businesses, 6.1% of them were medium-sized enterprises, and 1.4% of them were large companies. The large enterprises (62) realized the highest revenue, 2 265.3 billion Forints. They contributed 57.4% to the food industry's income (https://elir.aki.gov.hu/cikk/elelmiszeripari-kkv-k-reszesedese). There are no data regarding the food industry's revenue in the county.

In 2018, the companies of the food industry had a revenue of 3 984 billion Forints, which is a 20 billion Forint decrease from the previous year's income. Nearly one third (32.0%) of salesincome came from exports. (https://elir.aki.gov.hu/cikk/elelmiszeripari-export-alakulasa). There are no data regarding the food industry's revenue in Tolna county.

The majority of the food industry's companies, approximately 96%, are micro- small, and medium businesses, some of them require support because of their low workforce productivity and lack of capital.

More than 70% of the production value is produced by large companies. These companies use modern technologies, and most of them are in foreign ownership. They play an important role in the food industry of the European Union.

There are no relevant data regarding Tolna county, partly because of the method of data collection, and partly because of privacy reasons. In our study, we used data mainly from city councils, professional advocacy organizations, public governmental records, and companies of the food industry.

Compared to environmental conditions, the food-processing industry's capacity in the county is low. Products are used only in small quantities by the local industries, raw material producing is more significant. Often, the sector cannot utilize the possibilities of the region, the processing industry, and the consumer market, because of the lack of organizational capacities, technology, and capital. The industry structure and the size distribution are also different.

In general, the vast majority of companies in the sector are micro- and small enterprises producing for the local market. However, it is important to keep in mind that micro and small enterprises play a significant role in local employment, covering innovative and niche markets, and producing specialities. For most artisanal food processors, this is not their only source of livelihood, but an income-supplementing activity. However, due to the current producer readiness, consumer demand, as well as legal and regulatory conditions and shortcomings in marketing tools, producers reach fewer consumers in this form than possible, which can pose a food safety risk. There is no investment or consumer cooperation in the county. There are also few examples of producer cooperation. A real community of interest, which could be the basis for professional or territorial cooperation, has not yet emerged. Although initiatives have been taken to develop various trademark systems emphasizing geographical indications, they have not been able to spread among consumers. There was a lack of promotion of these, often without real value. Their lifetime was bound to tenders.

Short food supply chains (SFSCs) operate only rudimentary, making it difficult for small-scale producers without a buy-in market to succeed. SFCSs would also strengthen producer and customer awareness and recognition, promote local products. This would help to create a base for high-quality food- and processing industry. Thanks to the available subsidies, producer markets have been renewed, or micro-regional, town markets have been established throughout the county.







In addition, medium-sized companies are also dominant.

However, a significant part of the production value is produced by the few large companies present. Among the – published – 100 largest tax-paying businesses in the county, three enterprises operating in the food processing industry have been ranked in recent years: a meat processing and preserving company (Tamási), a winery (Bonyhád) and a bakery (Paks).

At the same time, the ability of a sub-branch to generate income is small, and instead of a product quality competition, there is price competition between the companies. They do not utilize their export capabilities.

Tolna county lacks the infrastructural background, human resources, and financial conditions for major R&D activities. Food businesses do not or rarely have an independent research department due to their small size and lack of capital. There are ad hoc research activities in which, for example, the University of Pécs and some companies (e.g. in the field of viticulture) cooperate. Agri-food research is typical of other regions of the country, e.g. the capital, Budapest, Gödöllő, Debrecen, Kaposvár, Pécs.Research and development and innovation are more typical of the big enterprises.

Almost 70% of the companies involved in the food industry in the county are engaged in other activities, too, thus they don't have a clear activity profile.

The sector as a whole is vulnerable to weather conditions, as the performance of the manufacturing industry is related dependent on crop performance.

- 1. Meat processing and -preservation, production of meat products
  - Meat processing and -preservation
  - Processing and preserving poultry meat
  - Production of meat and poultry products

The meat industry is evenly present in all areas of the county. Pig-, poultry, and cattle processing is typical. There are only 4 certified slaughterhouses in the county.

The company with the largest sales revenue is an Austrian-owned meat processing limited company employing 240 people, which is present on the domestic and export markets with convenience- and packaged products.

In the processing of poultry meat, a Hungarian-owned company with 170 employees is at the forefront. They slaughter and process nearly six million chickens a year, and they work primarily for the domestic market, selling their products to wholesalers, Hungarian retailers, and institutions. Their export to Austria and Romania. As part of their long-term investment strategy, they doubled their capacity with a HUF 2 billion investment in the period under review.

Smaller slaughterhouses and processing plants are mostly processus-wide with general meat products, and they produce meat products and smoked goods based on well-distinguishable traditional or novel recipes, or new technology. With a staff of less than 10, in many cases, they have their own butcher shop. Less-populated areas are covered with a moving butcher shop.

## 2. Fish processing and -preservation

There are no registered companies in this sector in Tolna County.

- 3. Processing and preserving of fruit and vegetables
  - Potato processing and -preservation







- · Production of fruit and vegetable juice
- Processing and preserving of other fruits and vegetables

Vegetable- and fruit production is a high-value branch of agriculture, which produces high production value on small fields. There have been noticeable developments in crop processing infrastructure in recent times. The existing plants were modernized (Kisvejke) in order to achieve higher product quality and productivity, and new ones (Kölesd, Gyönk, Kajdacs) were also established. In order to sell fruits (apricots, apples, cherries, etc.), vegetables (peppers, asparagus, and tomatoes), herbs (sea buckthorn, chamomile) produced in the county at a higher level of processing, juice producer, dryer, freezer, cold stores, and warehouses have been established. Among other things, processing provides an opportunity for those employed in fruit- and vegetable production to get more than just seasonal work. In this sector, there are several social organizations in the county, providing work for those living in disadvantaged areas as well. It stands out from their sales channel that the government provides pupils with fruit twice a week and fruit juice once a week as part of the government's "School Fruit" program, which aims to educate children to lead a healthy lifestyle.

The eastern part of the county is famous for pepper processing (milling). Some businesses also deal with the drying and grinding of other spices. Their products are also available online.

Fruit and vegetable processing facilities, cold stores, and packaging plants are also being built in the county currently to solve storage and cooling problems.

Syrups, jams, chutneys and pickles are processed in family businesses and smallholders. They are present in large numbers in the county, but their capacity for production only allows them to sell their goods close to the production site.

#### 4. Production of vegetable and animal oils

- Oil production
- Margarine production

They are produced with cold-pressed technology from oilseeds (walnuts, poppies, sunflowers, rapeseed), herbs (nettle, lavender), and vegetables (peppers). Oilseeds are partly harvested from their own properties and partly purchased from growers and collectors.

The largest company employs 18 people and has an annual revenue of more than half a billion Forints and also produces bioproducts. In addition to neighbouring countries, they also ship to England, Sweden, and Switzerland. In Hungary, their products are available in reform shops in big cities and online stores.

#### 5. Milk processing

- Production of dairy products
- Production of ice cream

The number of milk purchasers with treasury approval is 3. Milk collected from their members is processed by production plants in the county or neighbouring counties. The most significant dairy plant in Tolna County is operated by a large company, which produces dairy products from 150 million litres of extra quality milk a year.

Throughout the county, small local businesses process milk, which is often produced on their own farms. These are usually a low-capital enterprise with a plant that supplies only the nearby area. Among the producers specializing in the manufacturing of cheese and yogurt, we find a







large number of family or forced entrepreneurs. Most artisanal cheesemakers prefer fresh cheeses during production due to their fast rotation speed. They sell their goods in moving dairy shops and producer markets. This also applies to goat milk processing companies, however, they sell significantly smaller volumes.

#### 6. Manufacture of mill products and starches

- Manufacture of mill products
- Production of starch and starch products

The most significant mill in the county was closed down during the period under review. Currently, only smaller mills are in operation, with 2-3 employees and an annual income of a few tens of millions of forints. An exception is a mill in Tolna County, which is one of the ten largest mills in Hungary. It purchases and processes about 45-48 thousand tons of wheat from almost two hundred farmers, individual farmers, primary producers, or agricultural companies annually. Half of their production is shipped to the Italian and German markets. Part of the quantity is marketed as a special product, and with higher added value, it mainly strengthens flour exports. Currently, investments are being made to increase capacity and energy efficiency through a value-creating tender.

## 7. Manufacture of bakery and pasta products

- Bread; manufacture of fresh bakery goods
- Manufacture of preserved flour products
- Production of pasta

County bakeries are typically small in size. With just a few employees, they produce specifically for the local market, in some cases they have more than one store. Among the food processing enterprises of the county, the change is most common in this sector: new players are constantly entering, but terminating enterprises are also common. There are few well-trained professionals, therefore there is a constant shortage of manpower. This problem has reached such proportions that from 2017 onwards, the training of bakers in large classes in the county seat started again. Among the many bakeries, the survival of those who are offering customers creative products, a novel offer, and a well-developed store network is more assured. The emergence of self-produced bakery products of international retail chains (Penny, Aldi, Lidl, Tesco, Spar) increases the competition. A growing segment of the market is the sales of stores specializing in freshly baked products from semi-finished, frozen ingredients. A bakery of the county, which generates the largest revenue (HUF 1 billion per year), is also a key player in the Transdanubian bakery market. In addition to the production of fresh bakery products, their product range includes packaged baked goods and pre-baked products with modified atmosphere packaging. They carry out R&D activities to develop new products. They deliver to the central warehouses and shops of large food chains (hypermarkets and supermarkets) as well as to the small shops of consumer cooperatives and private businesses. The number of employees is 95. They also have a plant in Austria.

In the manufactories of the county, they produce dry pasta, biscuits and wafers, with only a few employees. These products are mostly made in the form of small producers and sole proprietors and can be found in producer markets and Hungarian retail stores.







#### 8. Manufacture of other food products

- Sugar production
- Confectionery production
- · Processing of tea and coffee
- Production of spices and condiments
- · Production of ready meals
- · Production of homogenized diet food
- Other food manufacturers

Perhaps the widest range of handmade goods can be found in the production of other foods in the county. The production of unique handcrafted chocolate products, bonbons, and fruit products has become popular, but we can find tea and coffee processing, condiment, and spice mix producers in the county as well. These (mostly micro-) enterprises find their customers in niche markets. By creating brands, they could be more prominent players of the market. There are aspirations in this regard. A good example of this is e.g. a bon-bon manufactory, and a dominant gingerbread and candy making company in the county, which has nearly 200 years of family traditions. They also sell traditional honey-based natural syrup in their own stores, farmers markets, local product stores, gift shops and in their web shop. Their products are well distinguishable.

A chocolate manufactory in the county seat, which only employs people with disabilities, is considered unique.

#### 9. Animal feed production

- Production of farm animal food
- Production of pet food

The county has 16 approved feed production sites. These are mostly agricultural and/or food businesses, which often process by-products from their main activity (e.g. wheat bran) to maximize their production.

## 10. Beverage production

- · Production of distilled spirits
- Grape wine production
- Fruit wine production
- Manufacture of other non-distilled, fermented beverages
- Beer production in small breweries
- Malt manufacturing
- Production of soft drinks and mineral water
- Manufacture of tobacco products

There are 23 registered commercial distillery licensees in the county. The products produced are predominantly spirits and liqueurs. A business is engaged in making whiskey.

Only 5-6 of them appear in the retail or HORECA market.

Wine production still plays a decisive role in the county today, and the county is still the most recognized by this. The number of grape processors is high in both of the Szekszárd and Tolna wine regions. The number of registered wineries is 227. Both the size of the grape fields and the size, condition and technology of the processing plants vary widely. This is also typical of







the size of businesses. There are especially a lot of primary producers and sole proprietors. The smallest, capital-poor businesses are often forced to sell their grapes at low purchase prices, or if they choose to process them, they typically produce wine-by-the-glass, at low prices, selling their wines directly from their cellar – sometimes in the grey economy. They are the ones who cannot keep up with the necessary plantation renovations and/or technical development. They often are from an older age group.

Wineries, which have emerged as serious market players, have been continuously increasing their processing capacity, modernizing their technology, and expanding their grape-growing areas to the optimum since the early 2000s. To fund these investments, they used grants from various available European Union and domestic tender sources. Their achievements at noted domestic and international wine competitions and their involvement in wine tourism (prestigious tasting rooms, accommodation, restaurants) help to sell their products and the acceptance of their higher consumer prices among customers.

They have also reached export markets. In domestic sales, an increasing segment is buying locally or selling through a web shop, but also the HORECA sector is strongly present and wines are available in retail- and grocery stores, too.

The wineries are located in the two wine regions of the county, but most of them are concentrated in Szekszárd (132 wineries) and in its surroundings. Based on the available data, the largest revenue was, however, generated by a Bonyhád-based company employing 35 people. In addition to its domestic sales, a significant part of its products is sold on the German and English markets.

There are two small beer breweries in the county. They produce unique, high-quality beer specialties in small volumes for a narrow consumer group. They sell mainly in their own pub, and through their web shop.

Only one company is bottling mineral water. Production of carbonated water – which is a Hungaricum – is, however, typical in small businesses.

Please fill in these data as good as possible. If you don't have any numbers, please estimate a rough comment. You can also try to get information about your region via Eurostat (https://ec.europa.eu/eurostat/de/home). Through cooperation with a local food producer you can try to include at least specific data about a regional producer to get a rough idea of the current situation.







| Category   | Criteria  | Description   | Data/comment   |
|--|---|---|--|
| General<br>description<br>of the<br>current<br>status<br>of the food<br>sector in<br>your region | Role of your<br>regions food and<br>drink industry in<br>national context | Percentage of food-sector-employees in your region as a proportion of food-sector-employees in your country               | 1.6%* food sector's employees in Tolna County as a proportion of food sector's employees in Hungary at 2018 1.3%** food sector's employees in Tolna County as a proportion of food sector's employees in Hungary at 2018 *for propositions with more than 4 employees **for proposition with more than 49 employees  Based on data from the Central Statistical Office For data protection reasons, complete data provision is not available |
|  |   | Percentage of food-sector-<br>enterprises in your region as a<br>proportion of food-sector-enterprises<br>in your country | 2.9% food sector's propositions in Tolna County as a proportion of Hungarian food sector's propositions in 2018  Based on data from the Central Statistical Office For data protection reasons, complete data provision is not available   |
|  |   | Share of sales in total sales of the national food sector   | The combined share of Hungarian agriculture and the food sector from gross value-added production was about 6-7 %, from investments 7-8 %, and from employment 8% in 2018.  The food sector's accounts for 6.8% of Hungarian product exports and 5.2% of Hungarian product imports were food products in 2018.  Tolna County accounts for 2-2%** of Hungarian food sector's production and sales in 2018.                                    |







|  |  | Tolna county accounts for 1.3%** of Hungarian food sector exports in 2018.  |
|--|--|---|
|  |  | Tolna County accounts for 2.5%** of Hungarian domestic food sales in 2018   |
|  |  | **for propositions with more than 49 employees  |
|  |  | Based on data from the National Chamber of Agriculture The data of agriculture and food production merged, therefore difficult to separate. Based on data from the Central Statistical Office For data protection reasons, complete data provision is not available |
| Role of the food<br>and drink industry<br>in your region | Percentage of food-sector-employees as a proportion of total employees in your region            |   |
| yeur region  | you. rogion  | *for propositions with more than 4 employees  |
|  |  | Based on data from the Central Statistical Office For data protection reasons, complete data provision is not available   |
|  | Percentage of food-sector-<br>enterprises as a proportion of total<br>enterprises in your region | 1% - Tolna county food sector's propositions as a proportion of Tolna county's total count of propositions in 2018  |
|  |  | Based on data from the Central Statistical Office For data protection reasons, complete data provision is not available   |







| Share of sales in total sales of the regional economy                                  | 14-14%** of the industrial production and sales of Tolna County provided by the County's food sector in 2018.  9.5%** of Tolna County's industrial exports accounted by the food sector of Tolna County in 2018.  The food sector of Tolna county accounted for 17%** of the domestic industrial sales of Tolna county in 2018.  Tolna County's food sector sales divided by 73%** domestic sales and 27%** for export.  ** For propositions with more than 49 employees  Based on data from the Central Statistical Office |
|--|---|
|  | For data protection reasons, complete data provision is not available   |
| Total numbers of employees, enterprises and share of sales of the regional food sector | 1565 people * - number of food sector's employees in Tolna county in 2018 932 people ** - number of food sector's employees in Tolna county in 2018 393 food propositions were in Tolna county at 2018 Production value was HUF 56,523 million ** in Tolna County at 2018 Sales worth was HUF 56,523 million ** in Tolna County at 2018   |
|  | where HUF 41,184 million** was domestic sales and HUF 15,198 million** was export  *for proposition with more than 4 employees  |







| **for proposition with more than 49 employees   |
|---|
| Based on data from the Central Statistical Office For data protection reasons, complete data provision is not available |





## 2. Current policy instruments, funding/support programs etc.

|  | Who are the programs aimed at? (target group) | How is the support structured? (financial, training programs, social project to support employees, infrastructural improvement)  | Importance/ Relevance (frequency and acceptance)        | Current policy ambitions within the region/instruments of supporting the food industry?            |
|--|---|--|---|--|
| EU instruments/progra ms   |   |  |   |  |
| A - GINOP-1.2.6-8-3-<br>4-16   | Medium-sized food companies                   | Procurement of new machines, technologic equipments; Renew, reorganize or modernize  | 2 winners from 62 competitions located in Tolna County. | Very few amount of food propositions applied. In Tolna County, only 1                              |
| Supporting complex investments in medium-sized food companies with combined credit product |   | existing buildings, building systems, construct new buldings; Develop information technology, procurement of new hardware and software products; Introduce authentication and classification systems; Activities conencted to public information and publicity; Use new technologies based on renewable energy sources | This is 3.2% of competitions. HUF 508 million           | investment in the milling industry and another 1 investment in the meat industry received support. |







| B - GINOP-1.2.1-15  Expanding the production capacities of micro, small and medium-sized enterprises       | Micro, small and<br>medium-sized<br>enterprises at<br>processing<br>industry | Procurement of new equipments; Investments of real estate and infratructure to operate new production equipment; Develop information technology, procurement of new hardware and software products; Accesibility; Improve work environment for reduced capacity workers;                    | 14 winners from 498 competitions located in Tolna County. This is 2.8% of competitions. HUF 2,37 billion | Only 1 from 14 Tolna County's competition is directly related to the food industry, which implements bakery development.   |
|--|--|---|--|--|
| C - GINOP-1.2.2-15  Support for capacity-building investments of micro, small and medium-sized enterprises | Micro, small and<br>medium-sized<br>enterprises at<br>processing<br>industry | Procurement of new equipments; Investments of real estate and infratructure to operate new production equipment; Develop information technology, procurement of new hardware and software products; Online appearance; Accesibility; Improve work environment for reduced capacity workers; | 51 winners from 1402 competitions located in Tolna County. This is 3.6% of competitions. HUF 1,2 billion | Only 4 from 51 Tolna County's competitions are directly related to the food industry, which implements bakery development. |
| D - GINOP-1.2.3-8-3-<br>4-16   | Micro, small and medium-sized  | Procurement of new machines, technologic equipments;  | 26 winners from 957 competitions located in  | Only 1 from 26 Tolna County's competition is directly related to   |





| Support for capacity extension investments of micro, small and medium-sized enterprises with combined credit product | enterprises at processing industry  | Renew, reorganize or modernize existing buildings, building systems Construct new buldings; Develop information technology, procurement of new hardware and software products; Activities conencted to public information and publicity; Use new technologies based on renewable energy sources | Tolna County. This is 2.7% of competitions. HUF 807 million  | the food industry, which implements bakery development.  |
|--|---|---|--|--|
| E - GINOP-5.1.3-16  Encourage social enterprises   | Social enterprises, social cooperatives, non-profit companies, foundations, religious organizations | Support for social propositions' stabilisation and improvement; Motivation to make market ready products and services; Support for markenting; Project management activity; Participate in trainings; Support to employ reduced capacity workers; Develop internet homepages                    | 3 winners from 171 competitions located in Tolna County. This is 1.8% of competitions. HUF 158 million | The activity of Tolna County in this tender is very low. Only 1 from 3 Tolna County's competition is directly related to the food industry, which implements the construction of a chocolate factory and visitor center. |
| F - TOP-1.1.1-15-TL1  Development of industrial parks and industrial areas   | Local self-<br>government and<br>budget<br>organizations,<br>Local self-<br>government              | Develop scinece, technology and industrial parks; Create industrial estates, improve existing; Greenfield and brownfield investments  | 5 winners from 129 competitions located in Tolna County. This is 3.9% of competitions. HUF 1,6 billion | Only 1 from 5 Tolna County's competition is directly related to the food industry, which implements the creation of an herbal processing industrial park.  |







|   | enterprises or<br>non-profit<br>propositions,<br>that do not<br>belong to the<br>SME category   |  |  |  |
|---|---|--|--|--|
| G - TOP-1.1.3-15-TL1  Local economic development          | Local self-<br>government and<br>budget<br>organizations,<br>Local self-<br>government<br>propositions or<br>non-profit<br>enterprises, that<br>do not belong to<br>the SME<br>category | Support for appearence of local producers on local markets -Build, extend, renew or modernize market areas -Support for improvement of local self-goverment owned catering (school or self-government's kitchen) -Support for local agricultural logistics -Implement basic infrastructure (like storages, cold-rooms, etc.) -Renew, reorganize or modernize existing buildings, building systems Construct new buldings | 10 winners from 183 competitions located in Tolna County This is 5.5% of competitions. HUF 2,4 billion | Support received in Tolna County for 5 agro-logistics center development, 1 cold store design and 4 marketplace development. |
| H - VP-4.2.1-15 Increasing value of agricultural products | Farmer;<br>Non-farmer<br>micro and small<br>enterprises;  | Procurement of new machines and technologic equipments; Implementation of functional buildings;  | 12 winners from 434 competitions located in Tolna County This is 2.8% of                               | Support received in Tolna County to establish new meat processing plants, fruit drying plants, cold stores, jam cooking      |





| and promoting resource efficiency in processing   | Consortium  | Activities connected to improve energy efficiency; Other modernisation to narrow environmental pressure, introduce new methods; Use new technologies based on renewable energy sources  | competitions.<br>HUF 1,28 billion  | plants and truffle processing plants.   |
|---|---|---|--|---|
| I - VP-4.2.2-16  Support for winery product development as well as increase resource efficiency | Farmer;<br>Non-farmer<br>micro and small<br>enterprises;<br>Producer group<br>and producer<br>organization;<br>Consortium | Procurement of winery machines and technologic equipments; Implementation of functional buildings; Activities connected to improve energy efficiency; Other modernisation to narrow environmental pressure, introduce new methods; Use new technologies based on renewable energy sources | 45 winners from 444 competitions located in Tolna County This is 10.1% of competitions. HUF 3,45 billion | Companies from Tolna County were mostly active in this tender.  Most of food industry's tenders related to the wineries of Tolna County.                        |
| J - VP-4.2.2-18  Increasing value for agricultural products in processing                       | Farmer;<br>Non-farmer<br>micro and small<br>enterprises;  | Improvement of food processing industry's buildings: -Procurement of new equipments, machines, form new technolgy systems and capacity -Implementation of functional buildings  | 32 winners from 484 competitions located in Tolna County This is 6.6% of competitions. HUF 4,2 billion   | The most of food industry support for Tolna County received from this tender, especially wineries. 65% of the applications support the development of wineries. |







|  |  | Improvement of winery factories: -Procurement of winery machines, technologic equipments -Implementation of functional buildings   |  | 35% of the applications support<br>the development of a meat<br>plant, sunflower seed press,<br>cheese factory, fruit processing<br>and juice juicing plant. |
|--|--|--|--|--|
| K - VP-6.3.1-16  Development of small agricultur factory   | Full-time primary producer, micro enterprises, full-time self- employed farmer, social cooperative   | Stabilize and improve market positions of existing product structure; Streamline and diverse existing product structure; Make conventional and handcrafted products by using locally produced basic commodity Streamlie mode of production                           | 28 winners from 787 competitions located in Tolna County This is 3.6% of competitions. HUF 130 million | Support received in Tolna County for horticulture, ornamental plant growing, vegetable growing (peppers), stockman and cheese making.                        |
| L - VP-7.2.1-7413-17  Infrastructural development of local product supply markets, public catering development | Local self-<br>government in a<br>rural area, local<br>self-government<br>association,<br>non-profit<br>organization,<br>religious<br>organization | Formation and improvement of local producer market and marketplace: -Renewal and form of roofed and roofless seller places -Renewal and form parlors -Renewal and form of places for market services (like storages, cold-rooms, etc.) Improvement of public kitchen | 14 winners from 365 competitions located in Tolna County This is 3.8% of competitions. HUF 434 million | Support received in Tolna County for 8 local producer market and marketplace development.  |





| M - VP-19.115 -<br>LEADER  Support the preparation of local development strategies | LEADER Local<br>Action Groups | Organize trainings for local persons; Make interpretations to bring local strategic improvement into prominence; Consultant activity, organize and transact forums; Administrative and managerial work   | 4 winners from 365 competitions located in Tolna County This is 3.8% of competitions. HUF 36 million  | 4 LEADER Local Action Groups in Tolna Country: Danube Connect Association Sárköz-Dunavölgye-Siómente Association Tamási and Region LEADER Association Tolnai Hármas Összefogás Rural Development Association |
|--|-------------------------------|--|---|--|
| National instruments/ programs   |                               |  |   |  |
| A<br>Indoor closed garden<br>program   | Local self-<br>governments    | Closed garden areas renewal; Make infrastructural background to improve agricultural utilization; Install fence against wild animals; Planting orchard; Save genetical diversity in closed gardens, protect natural environment, keep harvesting grape and fruit at outside areas, keep exsiting husbandry form of | 15 settlements in Tolna County won. HUF 167 million  Maximum 10 million HUF support per project; Maximum 20 million HUF support for electricity development There are 2.5-3 more demand appear for support. | Same 3 settlements successfully applied for two years.  1 electricity network development, There were 13 roads and areas leading to indoor closed gardens renewed.   |







| B<br>Investment support<br>program of large<br>companies | Large companies at processing industry, building industry, big trade, retail | closed gradens and improve the required background infrastructure.  Development of large food companies | Support for large domestic companies excluded from EU funds With a budget of HUF 3 billion. | 1 local self-government spent<br>the money on the preservation<br>of native Hungarian fruit trees.<br>leading large food companies<br>are among the winners |
|--|--|---|---|---|
| C  |  |   |   |   |
|  |  |   |   |   |
| D  |  |   |   |   |
|  |  |   |   |   |
| Regional instruments/programs                            |  |   |   |   |
| Α  | not relevant   |   |   |   |
| В  |  |   |   |   |
| С  |  |   |   |   |
| D  |  |   |   |   |
|  |  |   |   |   |
| Local instruments/progra ms                              |  |   |   |   |
| Α  | not relevant   |   |   |   |
| В  |  |   |   |   |





| C   |              |  |  |
|---|--------------|--|--|
| D   |              |  |  |
|   |              |  |  |
| Other (e.g. crowd, private, solidary supported) |              |  |  |
| private, solidary                               |              |  |  |
| supported)                                      |              |  |  |
| Α   | not relevant |  |  |
| В   |              |  |  |
| С   |              |  |  |
| D   |              |  |  |
|   |              |  |  |







## 3. Marketing and distribution channels currently used for regional products

Which sales channels are predominantly used?

Transport duration & frequency (short/long distance, high/low frequency?)

Import/Export of the produced food?

Are there any initiatives in your region that want to improve market reach.

Are there any initiatives in your region that want to improve market reach, internationalization, local food associations and aim to do so?

## National community agricultural marketing

The Agricultural Marketing Centre of Hungary (AMC) performs tasks related to community agricultural marketing activities in Hungary. The Centre plays an active role in improving the competitiveness and business results of the Hungarian agricultural and food industry, including the SME sector in the agri-food industry.

Activities of the AMC:

- · domestic and foreign media campaigns
- Appearance at domestic and international professional fairs and exhibitions
- organization of professional conferences, e.g.: National Agriculture and Food Exhibition and Fair (OMÉK)
- promotion of conscious consumer behaviour, the spread of healthy eating, environmentally conscious product choice
- increase the awareness and popularity of traditional and handicraft products.
- increase the marketing culture of SMEs and producers
- cooperation with professional organizations
- "Get It!" communication and promotional campaign to promote fish consumption
- "Bottle Post 2020" joint wine promotion campaign with the National Council of the Wine Communities, Hungary (HNT), which promotes online producer wine ordering to consumers. Wine marketing is a priority for AMC
- "Let every day be honey day" campaign: honey breakfast promotes honey consumption in more than 1000 schools and kindergartens with the National Hungarian Beekeeping Association Promotion of wine and gastrotourism by the Hungarian Tourism Agency.
- applied marketing channels: appearance at domestic and international professional exhibitions, social media participation, campaign films in the media, informative website

## Regional agricultural marketing

The task of Szekszárd Wine Region of Szekszárd Public Benefit Non-profit LLC. Is to promote the wineries of the Szekszárd Wine Region.

- Representation of wine regions at important national events
- promotion and advertising of wine tours and events in the wine region
- the emergence of Szekszárd wineries in wine and gastrotourism

The Hungarian Chamber of Agriculture (NAK) is now starting to organize the collection of food producers and processors in a register to create an online marketplace.







A start-up called "LOCAL FOOD" lost its relevance after the tenders ended.

QUALITY LOCAL FOOD - SZEKSZÁRD AND ITS REGION – a trademark project between 2011-2015 - it no longer functions after the closing of the tender activity. The trademark can be used by food-producing individuals or companies that produce their products in one of the 26 specified settlements of Tolna County. The requirements: Environmentally friendly food production and the packaging of the product must not pollute the environment either.

AGRICUM producer's products store in Paks has been operating for years, today it organizes occasional local producer markets.

## Individual agricultural marketing

Individual agricultural marketing depends on the financial situation of the enterprises and the possibilities of professional human resources. Their opportunities are limited to traditional media due to the high financial needs of the activity. The role of online marketing and social media is becoming more and more important. Appearance at wine and gastrotourism events also have a decisive marketing power.

## Sales channels (Distribution channels)

direct producer sales:

- By excluding the intermediary trade, more favourable prices can be established. It ensures
  a direct relationship between the producer and the buyer, and increases trust. The buyer
  "comes to the product" so shipping costs can be reduced. Typical examples are wineries,
  the Petrits gingerbread shop, bakeries, and meat processors with their own shops
- local product markets:
- They are only occasional in Tolna county: e.g. Spájz (Paks), Szemtől-szembe, Kézből-kézbe (Face to Face, Hand to Hand) (Szekszárd).

#### markets:

• It is the traditional sales channel, but the modernization of the markets in Hungary has lagged behind, so their role has diminished to hyper- and supermarkets' benefit. Local, regional producers and product traders sell their products here. Processed food products include: juice, jam, pickles, meat products, cheeses, honey, etc.

#### local product stores:

 In addition to the wine shops or vinotheques, the following stores are the currently operating local product shops in Tolna County: "Hun cucc", Jováncai Hétpecsétes (Gyulaj), Ezermester (Pári), Spájz (Kisvejke), Sió Termékház (Szekszárd) and the Tamási Térségi Termék Bolt. Other initiatives died mainly due to financial reasons.

hyper- and supermarkets (Tesco, Interspar, Spar, Auchan):

 They are playing an increasing role in the sale of food due to the large selection, and convenient shopping options. However, they are a place to sell a standardized supply that can be produced in large quantities.

discount chain stores (Lidl, Aldi, Penny):

 An increasingly popular sales channel. They offer lower prices than hyper- and supermarkets but have a limited selection. They provide convenient shopping and sell their goods in multipacks. Recently, their supply of Hungarian wines has increased significantly.
 small and medium-sized grocery stores (CBA, Coop, Real):







 Maybe Hungarian products receive more attention here. For example, pasta products from Tolna (e.g.: Fácánkert, Fadd, etc.), Tolle dairy products, vegetables and fruits, wines. Some CBA stores also have their own bread and bakery products

#### online sales:

 Its role is still small, but its importance is growing, and it can become a specific sales channel for food products. E.g.: works well for wines, Gabriel Bonbon Manufactory, or Petrits gingerbread products.

#### vending machines:

• They are insignificant, e.g. typical for sea buckthorn drink.

#### mobile vendors:

• Its significance is low, but it is typical for milk, dairy products, meat products, bread and bakery products.

#### wine and gastrotourism:

Not just a marketing tool, but also a sales opportunity. It is also a venue for personal
encounters with local wine products at events or a program set up by producers (e.g. wine
tours, wine dinners). Producers and sellers can get in direct contact with Hungarian and
foreign tourists, so they can provide a personalized service.

#### HORECA sector:

• Their significance is growing steadily but slowly. With the differentiation of restaurants and the development of restaurant services, wine consumption increased in restaurants. In catering establishments, the seasonal vegetables, fruits and even mushrooms, produced in the area appear primarily as raw materials. Processed products are in smaller volumes but in a wider spectrum. E.g.: ground paprika, honey, pickles, dry pasta, wine, pálinka, cheeses, meat products, bakery products, etc.

## Canteens, subscribed meals:

 There are attempts to include the products of local and county producers in public catering/canteen meals in the spirit of short supply (food) chains (e.g. Paks, Tamási, Szekszárd).

For some products, the potential of the grey economy also appears. This can be especially true if the purchase is made directly from the producer, e.g. in the case of hot peppers, honey, wine, meat products, and cheeses.

Among the large number of nationalities in the county, the Swabian and Szekler traditions are often mixed with the Upper-Hungarian and Hungarian traditions in the field of food production. Primarily in-house production is typical, but uncontrolled sales are also common.

Transport duration & frequency (short/long distance, high/low frequency?) Import/Export of the produced food? No data available.

Food products account for 6.8% of Hungarian export turnover and 5.2% of imports. The share of the most important food sectors in the production value in 2018 in Hungary:

• poultry meat processing 10.4%, dairy product production 9.1%, meat processing 8.8%, soft drinks and mineral water production 7.6%, other fruits, vegetable processing 7%, livestock







food production 6.2%, meat and poultry meat production 5.9%, manufacture of pet food 5.9%, manufacture of oil 5.9%, manufacture of bread and bakery products 3.4%, manufacture of other food products 29.7%.

The share of the most important export products in agricultural exports in 2018 in Hungary:

cereals 13.4%, meat 11.5%, processed feed 10.2%, beverages, spirits and vinegars 8%, coffee, tea and spices 7%, oilseeds 6.5%, fruit and vegetable products 6.4%, animal and vegetable fats and oils 6.2% dairy products, eggs, honey 5.3%, live animals 4.2%, other products 21.4%.

The share of the most important import commodity groups in agricultural imports in 2018 in Hungary:

meat 9%, other food products 9%, animal feed 8%, dairy products, eggs, honey 8%, confectionery 7%, beverages, spirits, vinegar 6%, dried seeds, animal feed 5%, cocoa and products made from cocoa 5%, food of animal origin preparation 5%, tobacco products 4%, other products 31%

Exports and imports have been growing steadily since 2010. The balance is positive, exports are more significant each year than imports, the ratio is about two-thirds to one-third

## Food product exports in Tolna county:

- wines (Germany, Belgium, the Netherlands, Poland, China, the USA, etc.)
- pálinka (Germany)
- juice (Germany, Slovenia, Austria, Scandinavia, Baltics)
- peaches (Austria, Germany)
- flour (Germany, Romania, Slovakia, Italy)
- carcase meat, poultry, meat products (Romania, Austria)
- vegetable oils, condiments (England, Bulgaria, Czech Republic, Poland, Slovenia, Slovakia, Romania, Switzerland, Sweden)







## 4. Current technological environment, research & development scene in the region

Which institutions are located in your region (for example Universities, research facilities, state agencies, NGO's, etc.)? What are the greatest challenges for technological improvement? (internet, finance, resources, state of knowledge, scientific development, competition, ...)

The enterprises in the region don't have R&D (except for 1 or 2 companies). They are mostly micro's or very small businesses. As for the institutions we have the information.

- University of Pécs Faculty of Cultural Sciences, Education and Regional Development Szekszárd
  - Wine Analytical and Microbiological Laboratory
- University of Pécs Faculty of Sciences, Pécs
- University of Pécs Medical School Pécs
- University of Pécs Research Institute Viticulture and Enology Pécs
- University of Pécs Szentágothai Research Centre Pécs
  - development of life sciences, inanimate science, environmental education, research and innovation
- Medipolis Knowledge Centre, University of Pécs. South Transdanubian Cooperative Research Centre, Pécs
- Research of herbs and medicine
- National Agricultural Research And Innovation Centre Gödöllő
- University of Kaposvár Feed Crops Research Institute
  - It deals with basic and applied agricultural research adapted to the current challenges of crop production.
- PannonPharma Ltd. Kajdacs
  - laboratory for herb research
- National Food Chain Safety Office, Feed Safety Directorate Radioanalytical Reference Laboratory site in Szekszárd.
  - Performs radioanalytical tests on samples, food and feed related to agricultural activity and forestry,
- MINERÁG Development, Production and Trade Ltd., Szekszárd
  - Their activities are mostly related to agricultural production. They have an accredited laboratory. Their expertise is based on the research carried out here.
- Vinartis Wine Laboratory, Szekszárd
- Larger wineries have their own laboratory for basic testing of their activities.







## 5. SWOT-analysis, accelerators and obstacles

|          | Helpful  | Harmful   |  |
|----------|--|---|--|
|          | (for food enterprises)   | (for food enterprises)  |  |
|          | Strengths  | Weaknesses  |  |
| Internal | <ul> <li>excellent agricultural growing areas</li> <li>centuries of experience</li> <li>high-quality agri-food products</li> <li>in the food industry, the production value per employee is exceptionally high, much higher than the national average</li> <li>significant increase in the value of produced goods</li> <li>varied local hand-made products</li> <li>special traditional agricultural products: örölt fűszerpaprika, honey, Bikavér of Szekszárd, Kadarka of Szekszárd, Márc of Szekszárd, gingerbread, pálinka (spirit), dry pasta, cheese, smoked meat products, bakeries,</li> <li>Appearance of innovations: "Szekszárd chocolate", wine bonbons, fruit drying, juice pressing, craft beer, whiskey, chili processing, herb processing, lavender processing, einkorn-wheat flour, fruit tea, biscuits, cakes, coffee</li> <li>Outstanding domestic and international successes of the Szekszárd wine region</li> <li>Fishing on the Danube, fish farming and its impact on local gastronomy</li> <li>Excellent wildlife (red deer, fallow deer, roe deer, wild boar) and its impact on local gastronomy</li> <li>Modernization of some local product markets, and establishment of new ones e.g. in Nagydorog and Paks</li> <li>Rise of wine and gastrotourism</li> <li>Dominance of domestic sales (73%)</li> <li>The size of the plants is highly diversified</li> </ul> | <ul> <li>incomplete statistics on the food sector, SMEs</li> <li>the number of food businesses and people employed in the food industry in the country is low</li> <li>the number of people employed in the food industry in the county has not changed for years</li> <li>small and medium-sized enterprises are short of capital</li> <li>few social cooperatives or social enterprises</li> <li>calls for tenders affect the entire processing industry, leaving the food industry in the background</li> <li>variable quality of agricultural machinery</li> <li>the degree of processing of agricultural products varies</li> <li>small volume production</li> <li>weakness of local product markets</li> <li>price-sensitive customers</li> <li>wages below the national average, lower solvent salaries</li> <li>predominance of hyper- and supermarkets in food sales</li> <li>vulnerable positions opposed to large companies and buyers</li> <li>the value-added index is low</li> <li>variable levels of productivity</li> <li>the distribution network is poor</li> <li>insufficiently diversified product structure</li> <li>lack of cold stores, storage, and logistics capacities</li> <li>there is no widespread quality assurance system</li> <li>there are few unique, personalized products and services</li> <li>few restaurants are using a local producer's product</li> <li>lack of short supply chains and supply networks based on local raw materials</li> <li>lack of workforce,</li> <li>expensive workforce</li> <li>lack of automatization, robotization, digitalization, and other modern technologies.</li> <li>there is little greenfield investment, low purchase prices</li> </ul> |  |







## **Opportunities**

- development of subsidies and tenders which are targeted towards the food industry
- more favourable tender conditions for the food industry
- priority support for food businesses for young entrepreneurs
- greater support and protection of food industry SMEs
- lower VAT for Hungarian food products
- more efficient community agricultural marketing
- increasing the demand for quality Hungarian products
- more efficient community wine marketing
- development of local brands
- modernization popularization of local food markets
- establishment and support of local product stores
- support for direct producer sales
- professional and financial support to help producers access export markets
- improving the connection between the food industry and tourism
- greater presence of local products in local restaurants and hotels

#### Threats

- frequently changing legal regulations
- restoration of high VAT
- uncertain tender grants
- unfavourable calls for tenders
- unfavourable financial institution-conditions
- decline in consumer loyalty
- increase of comfortable consumer behaviour
- decline of solvency in the event of an economic crisis
- decline in exports in case of an economic crisis
- yield and quantity of the raw material plants are dependent on the weather
- cessation of activities due to low purchase prices
- the need for forced varietal changes due to weather changes, the need to develop capitalintensive irrigation systems
- lack of the required number and skilled workforce
- commuting problems due to the inadequate scheduling of public transport
- in addition to supporting innovative food industry developments, increasing resource efficiency and reducing environmental impact, there is a lack of support for robotization and digitalization.
- some subsectors employ seasonal workforce only.

External







## 6. Other regional, geographical and social factors effecting the food industry

For example geographical factors like climate, weather conditions, agricultural conditions, landscape, infrastructure, etc. or social factors like unemployment rate, age structure, demographics, living space, educational landscape, family environment, working conditions, etc.

Tolna is one of the smallest counties within Hungary based on the area size and population. Area is 3706 km<sup>2</sup>, population is 219.000 persons and population density are 59 persons/km<sup>2</sup>. Tolna county seat is Szekszárd with 33.000 citizens, which is the smallest seat in Hungary. The county has 109 settlements what separated to 11 towns and 98 villages. Structure of the county is typically small villages, where more than 50% of them having under 1.000 inhabitant.

#### **Natural environment**

Tolna county is located at the right riverside of Danube where Transdanubian Hills and Great Hungarian Plain encountered. The area is separated to 57% hill-country and 43% plain, biggest regions are: Mezőföld, Tolnai-Sárköz, Tolna Hills (formed by Tolnai-hegyhát, Szekszárd Hills, Völgység), Geresd Hills. Most of the county's ground is sediment from clay and sand. Significant amount of loess has been settled down during Pleistocene at Mezőföld and eastern part of Tolna Hills. The surface of Tolna Hills is meticulously cut up, covered by loess. Comb's common properties are rapid slopes on northern side but declivous slopes on southern side until the sole. There are excellent bearing surfaces and vineyards at the southern side. Sand areas have been created at the southern region of Mezőföld during Holocene.

Climatic and soil research ability of Tolna county are very positive for agriculture. The climate is a transition between Great Hungarian Plain and Transdanubian. Typically, the sunshine is dominating here, especially South-Mezőföld and Sárköz, where yearly sunshine hours count more than 2.000. A bit more extreme climate can be observed by going to East. Precipitation is between 600-750mm.

A new layer of brown soil, as known as chernozem formed on the top of the 15-20m thick loess layer. The quality of this soil makes very good conditions for cultivation of plants, particularly suitable for cereal and corn. Tolna county has an outstanding bearing surface.

## Agricultural environment

Agriculture always determinative in county's economy. 81% of the area (300.000 ha) is bearing surface. The architecture of faming branches is different than country's average. Separation of agricultural areas is the following: plough-land 62,2%, kitchen-garden 0,6%, orchard 0,6%, vineyard 1,2%, grass 5,2%, forest 19,7%, reed and fishpond 1,2%, wasteland 9,3%.

Size of these areas downgraded by 2% in the past 20 years. Some areas were able to extend, like orchards, forests, fishponds, and wastelands. Areas lost for kitchen-gardens, grass, reeds, vineyards. Only plough-lands' size remains the same. 56% of forest areas are state-owned, 43% is privately owned and 1% is in hands of different communities. 90% of the forests are greenery, remaining 10% is coniferous wood and various other woods.

Most part of Tolna's sowing areas produce cereals, it is consuming 76% of the field. Other products: oil seeds 17%, fibrous feeds 4%, greens 1%, other plants 2%. This is different than







country's distribution which is: cereals 58%, oil seeds 24%, fibrous feeds 8%, greens 4%, other plants 6%. Paprika powder is a representative local product.

50% of plough-land used for corn, 25% used for wheat, another 15% for sunflower, remaining 10% is for rape and alfalfa. Because of fortunate natural environment the average yield is higher for all plough-land's plants than the country's average.

Tolna county's grape growing is above than average of the country. There are excellent terrain, climate and soil. Because of these abilities the area is holding two important wine regions of Hungary: Szekszárd and Tolna. 59 of 109 settlements are part of these wine regions. Characteristics wine product of Szekszárd region is red wine, however white wine more typical in Tolna region. Dominant red wines from Szekszárd region are Szekszárdi Bikavér, Szekszárdi Kadarka, Szekszárdi Kékfrankos and Fuxli. Well-known wine type from Tolna region is the Siller.

3,5% of country's neat livestock is located at the county, as well as other livestock like swine with 4,7%, sheep with 3,7% and poultry with 2%. Breeding of neat has remarkable tradition specially at sector of Bonyhád. A very typical local strain is called "vöröstarka".

Fishery and fishing also a traditional activity because of the Danube and its feeders (Sió, Sárvíz, Kapos). Fish consumption is above than the country's average. One of the famous fish foods from Tolna county is the Danubian fish soup.

The wild animal resource is very rich because the size of forests' territory. Various type of wild animals can be found in these forests, like red deer, fallow-deer, roe, boar. A trophy record of a red deer has got in one of the county's forests.

#### Social environment

County's population is falling off for decades. Average ease down is 1,300 people per year. The population is getting older, aging index is 146. Childbirth's count is stagnant or going down. 13,7% of the population is childhood, 66,1% is active age (15-64) and 20,2% is old age (65 and above). Beside of that the wandering of the young generation is typical. Man and woman scale are 1.000 against 1.085 (this is the typical scale above 45 years). Man's mortality rate is twice big as women. Tolna's population contains 5,2% German, 3,9% Gipsy and 0,1% Croatian nationality (data gathered by own admission).

Unemployment rate looks better during the past decade compared to previous decades. Activity of the economy is 57,8%, employment rate is 56,6% what is less than the country's average (60-62%). 2,1% of employed people are living in the county. 58% of employees are working as manual worker while other 42% are profession. 5,1% of employees are working in the agriculture sector, another 24,3% are working in processing industry. Private sector has 64,5% of the employees, another 31,8% belongs to budgetary authority.

Average earning of employed people is 5-10% lower than the country's average. Manual worker's average earning is up to 55% of profession's average salary. Processing industry's and agricultural workers' average earnings are lower than the county's average salary. Energy industry has the highest average earning, it is 2,3 times bigger than the county's average.

Unemployment rate is 2%, which is better than the country's rate (3,6%), owing to the expansion of the nuclear plant at Paks and a significant number of people who works at foreign lands. 2,4% of registered place-hunters located at Tolna county. Compound of place-hunters is the following: 51% women, 15% is under 25 years of age and another 11% is career entrant.







#### Education, educational situation

38,9% of Tolna county's population has secondary, 13,3% has college graduate. The education is improving, secondary and college graduate grown meanwhile elementary only graduation dropped to a lower rate. Despite of education's improvement the qualification indicator isn't hit country's average yet. Secondary, college or university graduation higher for women, however professional qualification is more popular for men. 11,1% of employed people are working in the education. The highest level of the education can be found at Szekszárd. The reason behind of this situation is that, the students from other parts of the county, who started upper level learning at the chief town are very unlikely to goes back to their original home. 20% of the population can speak at least one foreign language.

There are two main institution for Tolna county's vocational training: Szekszárdi Szakképzési Centrum/ Training Center (SZSZC) and AM Dunántúli Agrárszakképző Központ/ Training Center (DASZK). The latter institute has qualifications for agricultural and food industry at Szekszárd and Lengyel. Available qualifications: farmer, meat-trade worker, baker, agricultural technician, stockman, animal health technician, food industry technician, agricultural mechanic, agricultural housekeeper, village entertainer, agricultural machine repairman, park or garden builder, gardener.

The Szekszárdi Szakképzési Centrum/ Training Center has 10 consolidated schools. Available qualifications: health care jobs, nurse, osteopath, sport masseur, mechanical engineering, lock-fitter, tool man, car mechanic, carpenter, body ironer, welder, trading assistant, information technology, transport area, tourism, hospitality organizer, waiter or waitress, chef, confectionery.

Qualifications of ecclesiastical and voluntary school's:

Szekszárdi Kolping Katolikus Általános Iskola/ School's offerings: chef, carpenter, florist, flower trader.

Baptista "ESÉLY" Szakképző Iskola/ School's offerings: carpenter, wright, mason, tiler, painter, paperhanger, lock-fitter, women's tailor.

Pillich Ferenc Akadémia Szakközépiskola/ School's offerings: jobs connecting to agriculture: groom, horseman, agricultural mechanic, women's and man's tailor.

Energetikai Szakgimnázium és Kollégium's offerings based on the energy industry and nuclear plant's demand.

Tolna county has only one institution of higher education, called: University of Pécs Faculty of Cultural Sciences, Education and Regional Development. Available qualifications: teacher training, social worker, oenologist-winemaker, rural development engineering, wine tourism and wine gastronomy specialist.

#### **Background of regional economy**

Tolna county is a moderate developed area based on the economic performance. 2% of the Hungarian GDP is realized by the county. Agriculture has two times more significant here than the whole country's economy. 10-11% of the agricultural GDP belongs to Tolna county while country's average is 4-5%. However, processing industry rate is the lowest compared to all other county, it is just 12%.

GPD per capita is 3.280.000Ft/person which is 75,3% of the country's average.







6-7% of propositions from Tolna county are operating in the agriculture, another 12% in the industry. 92,9% of propositions are micro or small sized (under 9 persons), 6,5% employ between 10-49 persons, 1,2% employ between 50-249 persons and only 0,1% employ above 250 persons. 17,3% of economic organizations are joint venture, 74,3% individual proprietorship and 6,8% is a non-profitable. 1,3% of investments were realized here. 1,8% of industrial production rate come from Tolna county.

#### Infrastructure

4 of the "Helsinki ways" (TEN-T network) have connection with the county: V, V/B, V/C an VII. Only the railway crossing the county from V/B way (Budapest-Dombóvár-Gyékényes). As a part of V/C (near by the Danube onto the North, from the Croatian seaside to Budapest) M6 motorway has been fully built between Budapest and Bóly. Two bridges (M8, M9) were built over the Danube during this investment.

The M6 motorway and M9 highway are part of the county. The public road is 1169 km long, where 7,4% is expressway, 6,7% is 1st class highroad, 20,3% is 2nd class highroad and 65,6% is side road. East-West cross highroads are completely missing from the county.

Some national core railways are operating as a part of the transeuropean railway network: Budapest-Pécs, Dombóvár-Gyékényes-(Croatia). Other core railway networks what are operating outside of transeuropean railway network: Dunaújváros-Paks, Rétszilas-Bátaszék,Dombóvár-Bátaszék, Bátaszék-Baja-Kiskunhalas. Most of the railways has only one track, those are non-electrical and technical status of tracks is poor.

A few of the county's watercourse are playing a national and international role: Danube, Siócanal.

Three road operating in the county's area for public river crossing over Danube: bridge of Dunaföldvár, Szekszárd and Baja. Notable ferries on Danube located at Paks, Gerjen, Dombori, Dunaszekcső. Important docks can be found at Dunaföldvár, Paks, Fadd—Dombori, Bogviszló.

The airport of Öcsény is only operating to serve demands of sport, but it is a good candidate to develop for commercial airport.







## 7. Recent surveys, reports, research results regarding the regional food sector

Are there any current reports that could be interesting for the food industry? What results could be gained from these studies/publications?

Find key contacts / key economic motivation for new studies – cooperation with universities, associations, units & define common goals for cooperation; Chance to work with local experts?

Who can we get feedback from? Stakeholders, industry, politics, publics?

#### Data

Chamber of National Agriculture: Hungarian food industry and agriculture in numbers 2018

- Gives an overall view about Hungary's food industry and agriculture, therefore these two businesses are representing together
- Does not provide data about regional throughput

National Central Statistical Office: Counties in focus – Tolna county, 2018

 Gives a review about social life and economy. Data from food industry and agricultural are limited because of data protection purposes

National Central Statistical Office: Hungary, 2018; Review of foreign trade, 2018

- Gives a review about social life and economy. Data from food industry are part of processing industry. Only limited data available
- Does not provide data about regional throughput

National Central Statistical Office: Wine regions of Hungary, 2014

Gives a review about 22 Hungarian wine regions

Agricultural Research Institute: Information system of food industry 2018

- Summarization of Chamber of National Agriculture's data. Available as national data only.
- Does not provide county specific data

Availability of these data is limited. National data can be found but county specific data is insufficient because of data protection purposes.

Data about food producers are available from multiple organizations (NÉBIH, NAK, Government office, FM, NAV, JOSZ), however this information is not unitedly or up to date. Organizations collect these data for different goals; therefore, the methodology is different for each (for example data is available based on site, proposition, product line or production line). Furthermore, there are only a few propositions have clear profile, which means some data – like revenue – is distort. Food industry is not handled as an individual industry, but joined together with agriculture, processing industry or even services in most cases. Unfortunately, the data what can be collected is just partial.

Researches what made and published by Agricultural Research Institute (NAK) and NÉBIH are few years old.







#### Concepts, Strategies

Ministry of Agriculture: Concept of Hungarian National Food Industry 2017-2050 ICG Ex Ante Consultative Office: Strategy of Tolna county's Employment 2017-2021 Dipol Human Resources Management Institute Ltd.: Climatic Strategy of Tolna county, 2017 Self-government Office of Tolna county: Concept of Tolna County's Regional Development 2014-2020

HOZAM 2001 Rural Development and Economic Services Ltd and MSB Development Consulting cPlc: Regional Operation Program, Tolna County 2014-2020 – Concept of Tolna County's Economic Development 2014-2020

#### Researches from University of Pécs

University's researches are including a mixture of agriculture, food industry, health science, ecology, tourism and marketing.

In connection with EFOP-3.6.2-16-2017-00017 "Maintainable, intelligent and affiliated regional city models": "Local products' trademark systems, innovations, demand and supply at the region of South-Transdanubian, together with tourism utilization sub project" 2018-2020

 Investigation for local food's regional and seasonal supply. Investigation of demand for local foods. Analyzation of best practices and good models. Investigation for defined products utilization. Find success factors for local products and tourism product based on local heritage. Foundation of local product's marketing methodology improvements.

In connection with 20765-3/2018/FEKUTSTRAT "Excellence of Academic Institute" project, 3/1, "Innovations for maintainable, healthy life and environment".

- On of the research goal's is to collect information about how important and generally known issues and possible consequences with climate change and water management for agricultural and food industry propositions, as well as to measure their chances to have these issues handled.
- Another goal is to investigate farmer's connection with each other or with other organizations, chance of collaboration.

Wine consuming and habit of wine shopping within University's students 2019 – University of Pécs Faculty of Cultural Sciences, Education and Regional Development

 The goal of the research is to measure student's wine consuming and habit of wine shopping, motivations of wine tourism, knowledge of win culture and interest of qualifications connecting to wine. The novelty of the research is to collect information about people who are not wine consumers or buyers, as well as investigate the wine and events connected to wine's effect for travelling motivations from tourism point of view.

In connection with TÁMOP-4.2.1.D-15/KONV-2015-001 "Social innovations and building networks on knowledge base of University of Pécs at Region of South-Transdanubian" – "Trend research of vine-growing and oenology" project – University of Pécs Faculty of Cultural Sciences, Education and Regional Development

• The subject of this research is one of Tolna county's the key sectors, the current trends and the future of oenology. Research have data about how the technology changed, trends of wine marketing, change of wine tourism and wine consuming, collaborations between actors of wine sector and the demand of qualifications connecting to wine.







In connection with TÁMOP-4.2.1.D-15/KONV-2015-001 "Social innovations and building networks on knowledge base of University of Pécs at Region of South-Transdanubian" – "Trend research and social economy" project – University of Pécs Faculty of Cultural Sciences, Education and Regional Development

• The goal of the research is to investigate the state of social economy and future trends. Explanation of social co-operative (partially own by self-government) and social proposition at Hungary and pragmatic at Tolna county.

Sublimation of grape clones and grape resistance – UP Research Institute of Viticulture and Enology

 Some winery are running experiment for grape types at Pannon wine region. A new type of grape which has better resistance for disease and extreme weather is able to lead a stable grape quantity for wine making.

Chemical analytic investigation of Gere's grape-stone and grape skin grist – UP – Gere Winery:

• During the research demonstrated that Gere's grape-stone and grape skin grist contains those flavonoids and polyphenols which have strong antioxidant effect

