Global
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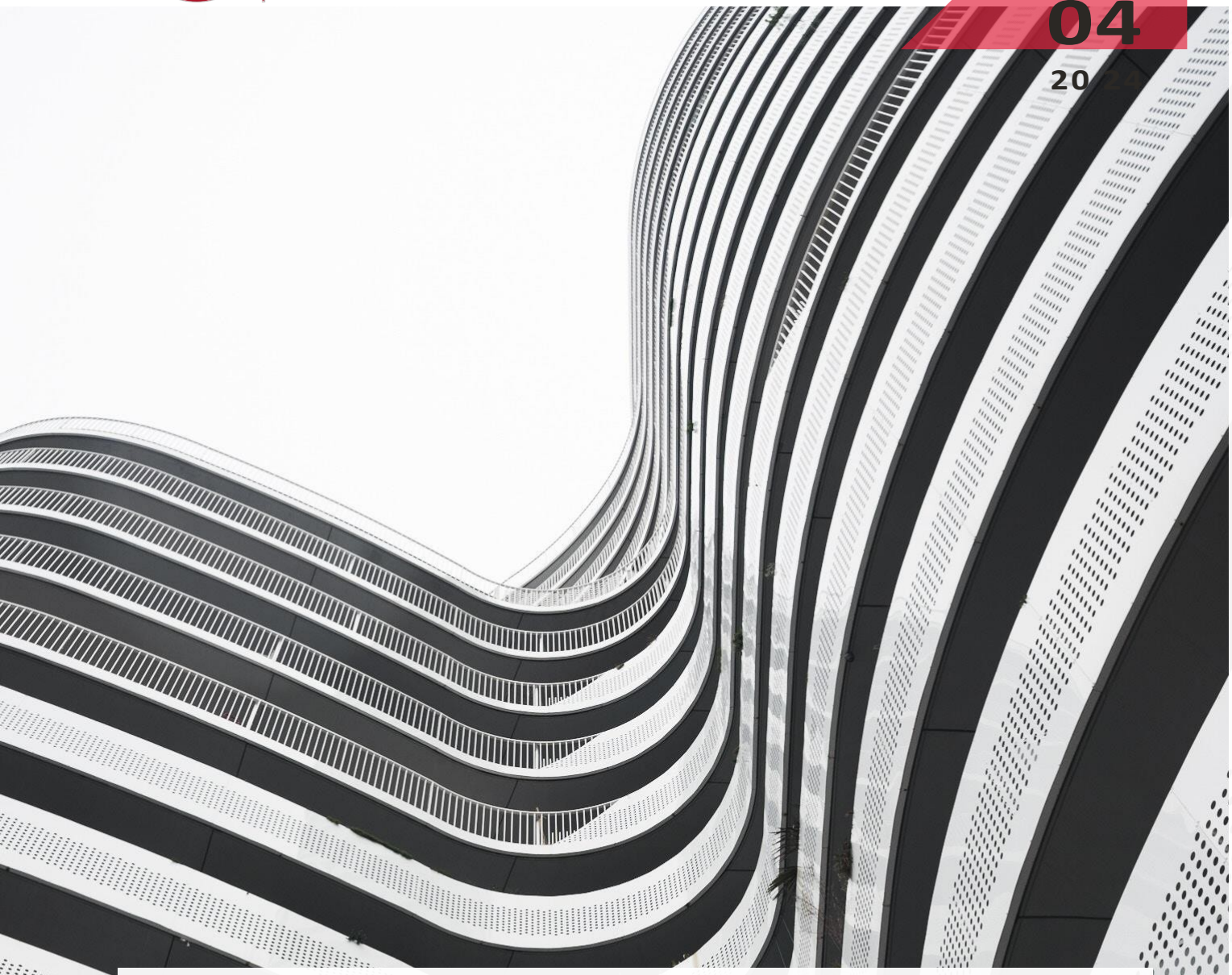

B AND S - P L A N :

Organization of production of semi-hard cheeses and PICATTO cheese

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Introduction

This work is a project that contains information about the organization, goods and services, a marketing analysis of the market of products, a plan of operations for the project and their effectiveness in the organization of production of semi-hard cheese and Pikatto cheese in the Kashkadarya region.

The planning period is 2024-2031.

Study period: 2022-2023.

The object and subject of the study

The object of business planning is an investment project of organizing the production of hard cheese and Pikatto cheese in the Kashkadarya region.

The subject of the study is to assess the effectiveness of investment in the organization of production of semi-hard cheese and picatto cheese in the Kashkadarya region.

Aims and objectives of the study

Purpose of the study: to assess the feasibility of organizing the production of semi-hard cheese and Pikatto cheese in the Kashkadarya region and determine the economic efficiency of investment in this project.

Research Objectives:

- assessment of the volume, capacity and structure of the market;
- analysis of consumers and main competitors;
- assessment of trends and prospects for market development;
- justification of investment funds for the implementation of the project;
- assessment of the economic efficiency of the project.

Sources of information

- data from other official industry sources of information;
- interviews with industry experts;
- interviews with market players;
- interviews with major consumers;
- analytics;
- economic and financial calculations of the Global Innovation Trade.

1. Project synopsis (summary)

1.1. The main parameters of the project

Project name: Organization of production of semi-hard cheeses and Picatto cheese

Initiator of the project: To be clarified

Project objective: to justify the effectiveness of investments in the organization of production of semi-hard cheese and pikatto cheese in the Kashkadarya region.

Project site: Oinakul village, Kamashi district, Kashkadarya region.

Mode of operation: daily in two shifts of 8 hours.

Personnel: the project plans to employ 35 full-time employees, including 18 staff members of the main production personnel.

The essence of the project: the project involves investment in the completion of reconstruction of the production building and installation of internal engineering networks, purchase and installation of production equipment, as well as vehicles for the movement of products inside the production facility and for delivery of raw materials to the processing plant.

The main purpose of the project is to create a modern enterprise for the production of semi-hard cheese and picatto cheese to provide the market with high-quality Uzbek product.

Production capacity of the plant: processing 70 tons of milk a day, the production of semi-hard cheese 7 tons per day, butter 500 kg per day, soft cheeses Picatto 3 tons per day.

The project schedule is shown in the table below.

Table 1: Stages and timing of the project

Project Stage	Beginning of work	Duration, days	End of job
Justification of the investment project and management decision	01.04.2024	30	01.05.2024
Obtaining funding	01.06.2024	14	15.06.2024
Carrying out construction and installation work	31.12.2023	365	31.12.2024
Delivery and installation of equipment	31.12.2023	365	31.12.2024
Purchase of a forklift and stacker	01.10.2024	60	30.11.2024
Acquisition of milk trucks	01.10.2024	60	30.11.2024
Running the equipment	15.12.2024	17	01.01.2025
Recruitment	01.12.2024	31	01.01.2025
Procurement of raw materials and supplies	25.12.2024	7	01.01.2025
Beginning of the production process	01.01.2025	2556	31.12.2031

Source: Information of the Project Initiator

Project funding:

The total amount of funding for the project is $7,320,000. Of which $4,632 thous. - Own funds for co-financing investments, $ 1,800 thousand. - The funds of the investment credit, 600 thousand dollars - funds of the revolving credit for securing the current activity, 288 - our own funds. - The funds of the turnover credit for securing the current activity, and 288 are own funds for securing the payment of interest on the credit and for covering the deficit of funds for current activity.

The distribution of investments by maturity is shown in the table below.

Table 2. Distribution of funding sources by cost items and terms of investment

№	Cost item	Price, thous dollar	2023 year	Jan.24	Feb.24	mar.24	Apr.24	May.24	Jun.24	July 24	Aug. 24	sen.24	Oct. 24	Nov.24	Dec. 24
1	General construction works	2 886	2 790	2 300	2,1	65,7	-	-	-	-	-	-	-	-	-
2	Equipment	3 334	423						809,2	779,5	264,6	264,6	264,6	264,6	264,6
3	Vehicles	211	-						107,5	103,8					
	Total	**6 432**	**32 13**	**2 300**	**2,1**	**65,7**	**-**	**-**	**916,7**	**883,3**	**264,6**	**264,6**	**264,6**	**264,6**	**264,6**

Est *ey: lightThe project initiator, Global Innovation Trade calculations*

1.2. Indicators of economic efficiency of the project

The main estimated performance indicators of the project are presented in the table below.

Table 3: Financial efficiency of the project

Investment performance indicators	Value, thousand dollars.
Net income	78 809
Net cash flow NPV	51935
Internal rate of return IRR (months), %	267,6%
Profitability index PI, units.	9,1
Payback period PB, years.	1,4
Discounted payback period DPB, years	1,5
Investment in the project	6 432
Average return on sales for the project, %	76,6%
Discount rate, %	10,7%

Source: Global Innovation Trade calculations

The net profit of the project at the end of the forecast period will be **$78,809 thousand.**

Net cash flow NPV is equal to **51 935 thousand dollars**, which indicates the payback period of the project**.**

The internal rate of return (IRR) was **267.6%**, which is higher than the discount rate (10.7%) - an excellent indicator for such projects.

In this project, a PI of **9.**1 means that at the end of the implementation period (December 2031), for every dollar invested, the Investor will receive **$9.1** (discounted).

The project will pay for itself in **1 year and 5 months**.

The payback period, taking into account the discounting will be **1 year and 6 months**.

The discount rate of this project is **10.7%**.

The value of the coefficient of loan debt coverage for the entire period of the project is not less than 1.15.

2. The essence of the proposed project

2.1. Project Location

The production site is located in the village of Oinakul, Kamashi District, Kashkadarya Province.

The district occupies an area of more than 2.66 thousand square kilometers. It is located 60 kilometers from Karshi city and 485 kilometers from Tashkent.

The district is connected to Karshi city by a road1.

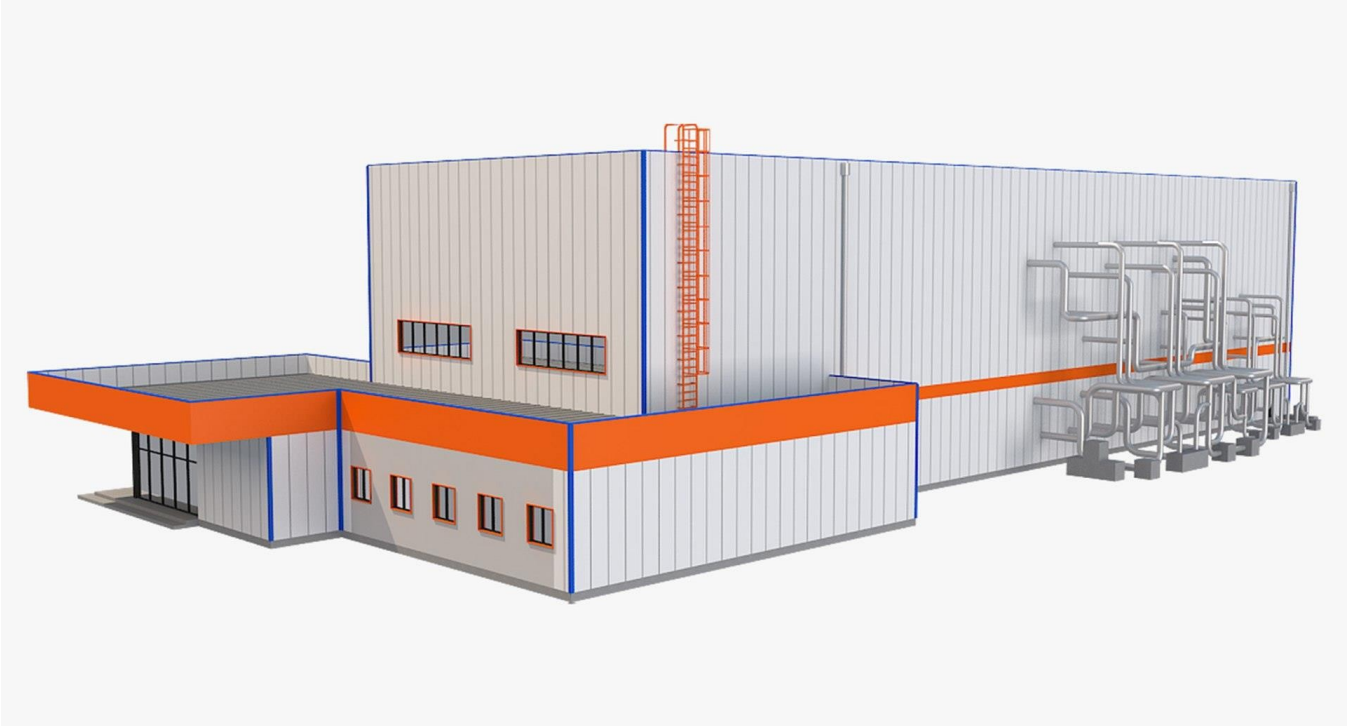
The population of the Kashkadarya region as of 2023 is 3.5 million people, and the population of the Kamashi district itself, which is 10 km from the planned production, is 286,000 people.

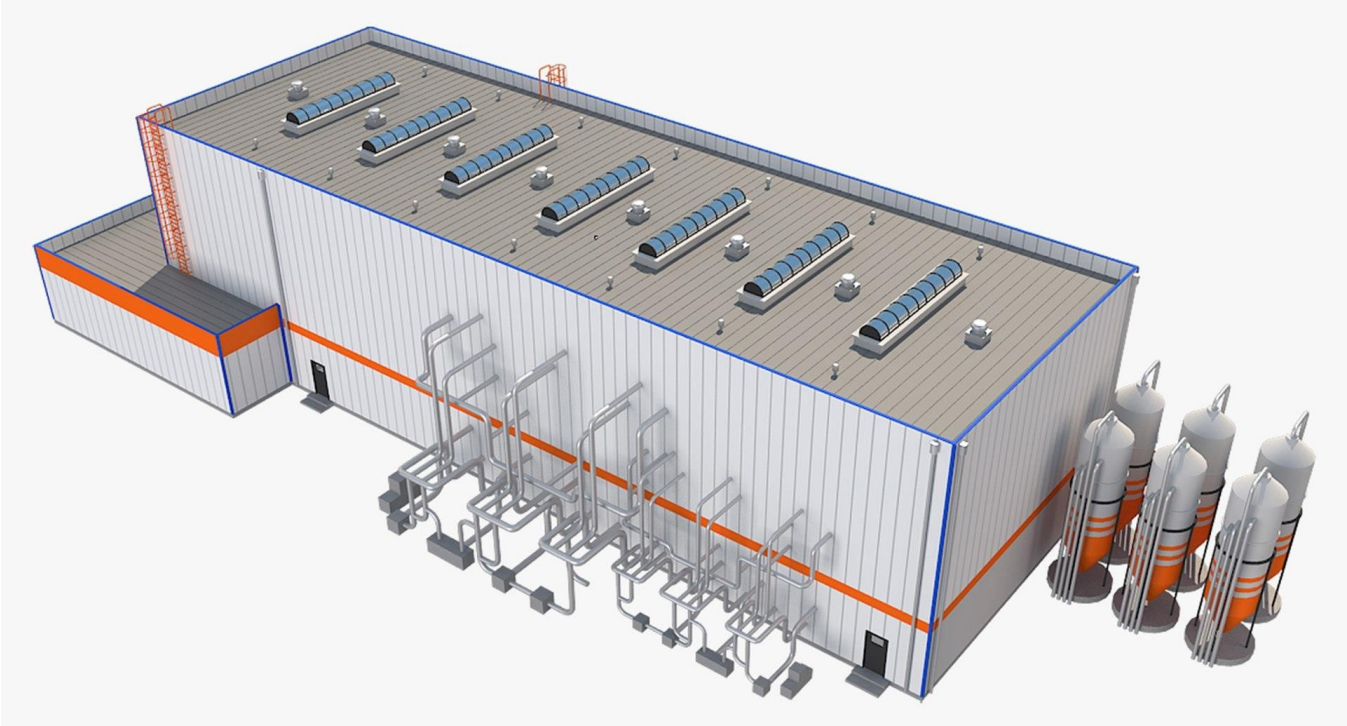
Figure 1 . Project location

Source: Yandex.Direct

Figure 2: Project Location Area

Figure 3: Project Location Area





2.2. Product description

We plan to launch production of semi-hard cheese, butter, and Picatto soft cheeses. Currently, a line of cheeses, logos and labels with the brand name have been developed.

The table below shows the range of planned for the production of cheese.

Table 4: Planned range of output products

SKU	Submission	Packaging	weight
Creamy	A piece of	Washer	220
Morning	A piece of	Washer	220
Classic	A piece of	Washer	220
Estonian	A piece of	Washer	220
Creamy	A piece of	Washer	340
Morning	A piece of	Washer	340
Classic	A piece of	Washer	340
Estonian	A piece of	Washer	340
Creamy	Slides	Slicing	130
Morning	Slides	Slicing	130
Classic	Slides	Slicing	130
Estonian	Slides	Slicing	130
Creamy	Slides	Slicing	175
Morning	Slides	Slicing	175
Classic	Slides	Slicing	175
Estonian	Slides	Slicing	175
Light Picatto	cream	Boxing	150
Light Picatto	cream	bucket	2000
Cottage cheese	cream	Boxing	150

Source: information Project initiator

2.3. Product technology

The cheese production plant envisaged by the investment project will produce the following types of cheese, differing by density and method of production:

Soft cheeses - cheeses with soft creamy/creamy consistency, produced without additional processing, without additional crust (fresh cheeses) - Picatto.

Semi hard cheeses - with dense creamy consistency, produced without additional processing, such as smoking or melting, covered with natural crust - Edam, Gouda. They differ from the soft cheeses by the method of pressing and ripening time. These cheeses are among the most familiar to the Uzbek consumer.

Regardless of the class of cheese and the volume of milk processed, cheese production consists of several basic stages: receiving and preparation of milk for curdling, production of cheese grain, molding, pressing or self-pressing, planting, ripening and storage.

Technologically, the following will be implemented:

1) There is a "strict" control of incoming raw materials. Each batch of milk is checked for physico-chemical control and antibiotics.

2) Milk arriving at the reception is sent for purification, where it is treated in a bacterial fugue (removal of mechanical dirt, epithelium, somatic cells). Then the milk undergoes additional cooling and is sent to storages.

3) From the storehouse, the milk enters the apparatus shop, where it is separated (separated into cream and skimmed milk).

4) The cream is sent for further processing to the butter plant. The skimmed milk is used to make a mixture for cheese production.

The table below shows the anticipated product line of the production to be created with a description of the selected technological processes.

Table 5: Main nomenclature of manufactured products and selected technological processes used in production

No	Product name	Production technology
1.	Cheese: Edam, Gouda	The mixture is normalized for fat due to the ratio of natural and skimmed milk. The prepared mixture is sent for pasteurization and cooling to the temperature of introduction of components for coagulation. The pasteurization temperature is adjusted to $^{72\text{-}740C}$, cooling to 260C. The ferment, leaven and auxiliary materials (nitrate and calcium chloride solution) are added. It is then incubated until the clot forms and the desired pH (active acidity) is attained. Afterwards the clot is cut open and is subjected to heat treatment. Depending on the type of cheese, the second heating temperature differs. This is an automated process. Techno-chemical control is based on pH-metry and temperature control. The obtained cheese grains are directed to a column for cheese separation. the grommet and the formation of the eurolayer. After the "head" is formed

No	Product name	Production technology
		The cheese is sent to the press, where part of the whey is displaced through the perforated surface of the mold by the pressure. The pressure is set for each type of cheese. At the end of the pressing process. The formed "head" of cheese is directed to salting. The salting process takes place in a brine tank with a concentration of 18-20% NaCl. The time of staying in the salt basin is set for each type of cheese (from 24 to 68 hours). At the end of the salting process a "head" of cheese is placed into a special container for rinsing in a special solution and then is directed for drying. After drying the cheese head is sent to the ripening chamber. The maturation process lasts from 24 to 40 days (the time depends on the type of cheese and the starter used). During the whey separation phase of the column and during the pressing of the cheese head, the whey is collected and cooled inline, then stored in storage tanks. The finished cheese is fed to the cutting and packaging line.
2.	Cheese soft: Picatto	The best way to make ricotta is with whey, the way The cheese is made from fresh milk with using rennet enzyme. For the preparation, the whey obtained after the of making p/t cheese with the use of rennet (whey) acidity 12-14 ° T. The process of clotting The temperature of the serum is 80-90 °C, the serum is thus thus, is boiled again. The whey goes into a special the tank - the ricotta tub. With the help of this equipment the chees- the funnel heats up to 80 degrees very quickly, then The tank cools down and gradually reaches a temperature of 90 degrees Celsius. Container for preparation is thermally insulated, The dollar cup for heating the product with steam and the lid, because when the The technology provides for such a high temperature of whey- The albumin is completely curdled after an hour of simmering. Fermentation takes place, resulting in the formation of cheese- flakes that float to the surface. In order to The serum is added to the serum to speed up the clotting process. monic acid. Then all the liquid is decanted, the cheese mass The product is packaged in plastic cone-shaped molds for self-preserving of the same.

3.	Butter 82.5% sweet and creamy	After separation in the apparatus department, the cream of milk is transferred to the butter department where it is re-separated and cooled (if necessary). The cooled and "matured" cream is transferred to a beaters, where it is whipped into butter. The resulting butter is washed in the stream with ice-cold drinking water. The butter is cooled with is. A block of 20 kg is formed. It is packed in the film, and then in

No. n/a	Product name	Production technology
		cardboard box. The received oil is directed to the freezing chamber for hardening (at $^{-27-250C}$) and further for storage in the chamber (- ^{180C}). Oil buttermilk is a by-product in the production process. It is collected and directed for mixing with whey. The mixing ratio is at least 1 : 10 (buttermilk : whey).

Source: Information of the Project Initiator

2.4. Characteristics of purchased equipment

It is planned to purchase production equipment for the production of semi-hard cheese, butter and Picatto cheese.

The equipment will ensure the quality of all stages of product preparation:

- milk reception and storage (special tanks with maintenance of a certain temperature);
- ripening and pasteurization of raw materials (complex for these processes);
- normalization of milk by increasing or decreasing the level of fat depending on the technological requirements (special separator);
- milk coagulation and grain ripening (closed baths with climatic equipment);
- molding and pressing (special lines);
- pickling и ripening cheese (special chambers, where is maintained at the necessary temperature regime);
- Waxing (immersing a block of cheese in melted paraffin for 3-4 seconds with special equipment).

In addition, racks for maturing and storing cheeses will be purchased.

There are also plans to purchase forklifts and stackers to move cargo inside the plant. And milk trucks, which ensure the delivery of milk for processing.

The main characteristics of the purchased equipment are shown in the table below.

Table 6: Characteristics of the property to be purchased

Justification of the need to acquire property (replacement of obsolete property, expansion or creation of new production)	Creation of a new production facility on existing premises

Useful life of the property	Group 5, life span 7-10 years
Comparison of technical and other parameters of the property. Analysis of commercial offers by price/quality criteria (justification). Possibility to adapt the acquired property to the existing technological process	The equipment and machinery were selected according to the criteria of optimal price-quality ratio. There is no need to adapt the acquired equipment to the existing technological process, as the technological process is organized "from scratch".
Requirements for raw materials/components/materials and other resources	The quality of raw materials supplied for the production of semi-hard cheese, Picatto cheese and butter will comply with all sanitary and veterinary standards. Preliminary contracts for milk supply are given in the appendix to the business plan.
Organization of maintenance/maintenance/repair of property	Expenses for maintenance, upkeep and repair of property are included in the calculation of production costs.
Security of production	The production process is planned to be organized in compliance with all safety rules.
Availability of projects/concluded agreements (contracts) for procured property (Appendices to the business plan)	Commercial proposals and preliminary agreements (contracts) for the purchased property are given in the appendix to the business plan.
Environmental issues of the project (if any)	-
Factors of environmental impact (by type and object of impact)	-
The cost of ensuring the environmental safety of the project	Due to the fact that the project does not pose an environmental hazard, no special costs are required to ensure the environmental safety of the project.

Source: Information of the Project Initiator

2.5. Characteristics of the construction/modernization/reconstruction object

The area of the reconstructed industrial building is 1 700 ^{m2}. At the moment part of the reconstruction of the premises, part of the finishing work in the administrative part of the building. Also part of the work on the installation of engineering and utility networks.

Table 7. Characteristics of the construction/modernization/reconstruction facility

Name of the object	Destination	Square
Production facilities		
Production building	Production activity	1700 м2
Infrastructure facilities		
Land plot	Placement of production	1 ha

Source: Information of the Project Initiator

2.6. Information about the project budget

The main indicators of the project budget are shown in the table below.

Table 8: Project budget

No. n/a	Name of articles	Total cost	Actual funds disbursed	Planned funds to be disbursed	Data sources
1.	Design and survey work	-	-	-	*Initiator data*
2.	Construction and installation work, including	2 886	1 140	1 745	*Estimates*
2.1.	Production building	2 886	1 140	1 745	*Estimates*
3.	Machinery and equipment, including	3 546	63,8	3 482	*Commercial offers*
.	Equipment of a gas boiler house	198	-	198	*Commercial offers*
	Tanks for DHW in the boiler room	26	-	26	*Commercial offers*
	Water measuring unit fire pumps	19	-	19	*Commercial offers*

No. n/a	Name of articles	Total cost	Actual funds disbursed	Planned funds to be disbursed	Data sources
	Supply and installation of equipment for steam boiler room	8	-	8	*Commercial offers*
	Supply and installation of compressed air compression equipment	7	3,3	3	*Commercial offers*
	Supply and installation of equipment for indoor refrigeration	110	-	110	*Commercial offers*
	Supply and installation of compressed-air refrigeration equipment	178	17,8	160	*Commercial offers*
	Ventilation equipment	57	20	37	*Commercial offers*
	Equipping and installing a metering unit for sewage disposal	8	-	8	*Commercial offers*
	Supply and installation of racks for maturing and storing cheese	9	-	9	*Commercial offers*
	Generator ready block container - 2 pcs.	183	-	183	*Commercial offers*
	Plant's main switchboard design	24	4,8	24	*Commercial offers*
	Supply and installation of the beam (salting)	3	-	3	*Commercial offers*
	Supply of technological equipment "Heat Exchangers	60	-	60	*Commercial offers*
	Equipment checkpoints of the plant	14	-	14	*Commercial offers*
	Design works (ecology, fire safety, etc.)	24	-	24	*Commercial offers*
	Equipment for the processing of molasses	180	18	180	*Commercial offers*
	Repair of technological equipment in underway	24	-	24	*Commercial offers*
	Revision of automation software technological processes (development, delivery and installation)	240	-	240	*Commercial offers*
	Interior doors; gates and anti-fire Curtains	19	-	19	*Commercial offers*

No. n/a	Name of articles	Total cost	Actual funds disbursed	Planned funds to be disbursed	Data sources
	Technological equipment for the production line of semi-hard and cottage cheeses, butter	1 944	-	1 944	*Commercial offers*
	Factory forklift and stacker	103	-	103	*Commercial offers*
	Acquisition of milk trucks 7-10 tons - 2 pcs.	108	-	108	*Commercial offers*
4.	Other expenses	-	-	-	
4.1.	Chief Installation	-			
4.2.	Consulting services	-			
4.3.	Unforeseen expenses	-			
	TOTAL:	**6 432**	**1207**	**5 227**	

Source nickname: information *Project initiator*

2.7. Environmental issues of production

The milk processing technology used will avoid adverse effects on the environment and the environmental conditions of the population.

The environmental activities of the enterprise include accounting of natural resources and control of their rational use, planning of environmental protection measures, control of compliance with legal norms, regulations, standards and technological conditions, ensuring payments for the use of natural resources.

3. Analysis of the situation in the industry

3.1. General overview of the semi-hard cheese market in Uzbekistan

3.1.1. General dynamics of companies in the industry

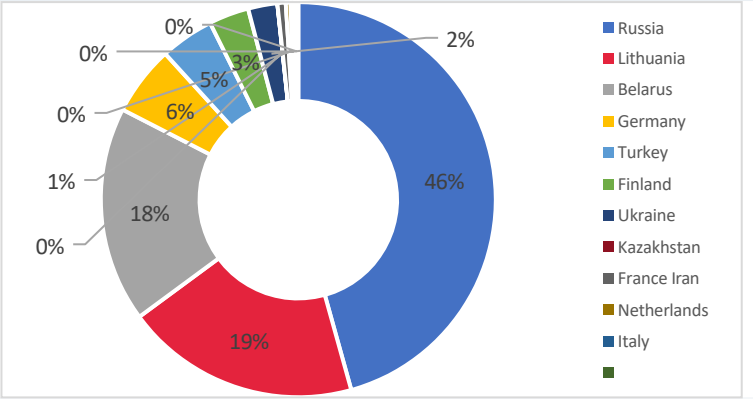
Figure 4. Structure of imports of semi-hard cheese in UZ, %

According to the State Statistics Committee, in January-July 2021, Uzbekistan imported 2.5 thousand tons of cheese and cottage cheese for $7.9 million from 21 foreign countries.

Imports of cheese and cottage cheese increased by 1.1 thousand tons compared to the same period last year.

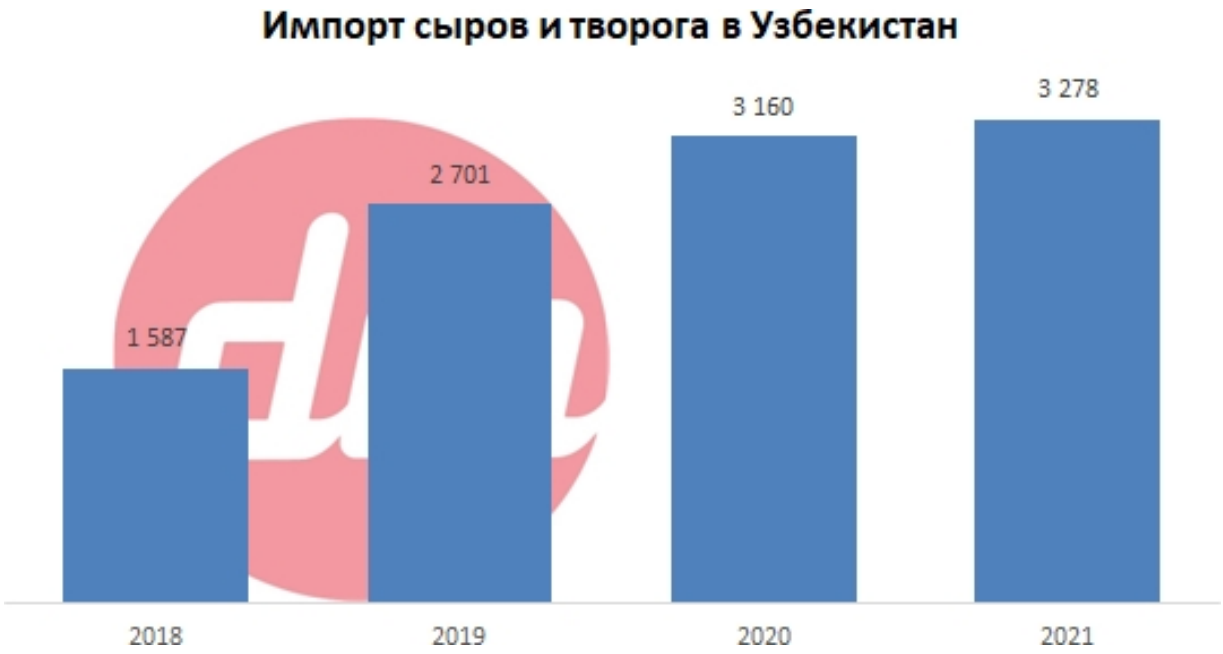
In the last 7 months of 2021, Uzbekistan imported the largest amount of cheese and cheese products from the following countries:

Russia - 1.1 thousand tons
Lithuania - 463.2 tons
Belarus - 425.1 tons
Germany - 137.1 tons
Turkey - 106.2 tons
Finland - 79.0 tons
Ukraine - 57.7 tons
Kazakhstan - 35.5 tons
France - 16.3 tons
Iran - 9.3 tons
Netherlands - 7.8 tons
Italy - 7.4 tons



Data source: Uzstat

Import substitution should be based on developed domestic consumer demand, investment processes and modern technology.



3.1.2. Assessment of the average level of profitability in the industry

The study analyzed the indicators of the main enterprises of the industry.

Table 9. Average dynamics of profitability indicators in the industry, %

	2020 y.	2021 y.	2022 y.
Return on sales	4,62	4,97	4,65
Profitability of profit before taxation (profit of the reporting period)	1,93	2,38	2,33
Profit margin from ordinary activities	1,44	1,87	1,86
Profitability of fixed assets	21,21	27,49	27,22
Return on equity	29,58	41,54	27,70
Return on assets	5,89	6,74	6,47
Gross profit margin (GPR)	8,16	7,90	7,11
Gross profit margin on costs (SGC)	8,96	8,61	7,72
Profitability of costs	4,90	5,30	4,96
Profitability of commercial and administrative expenses (COP)	230,06	313,71	413,85

Data source: Global Innovation Trade

On the whole, profitability in the industry has positive dynamics. According to experts' estimates, profitability indicators will show moderate growth rates in the future.

3.1.3. Asset structure

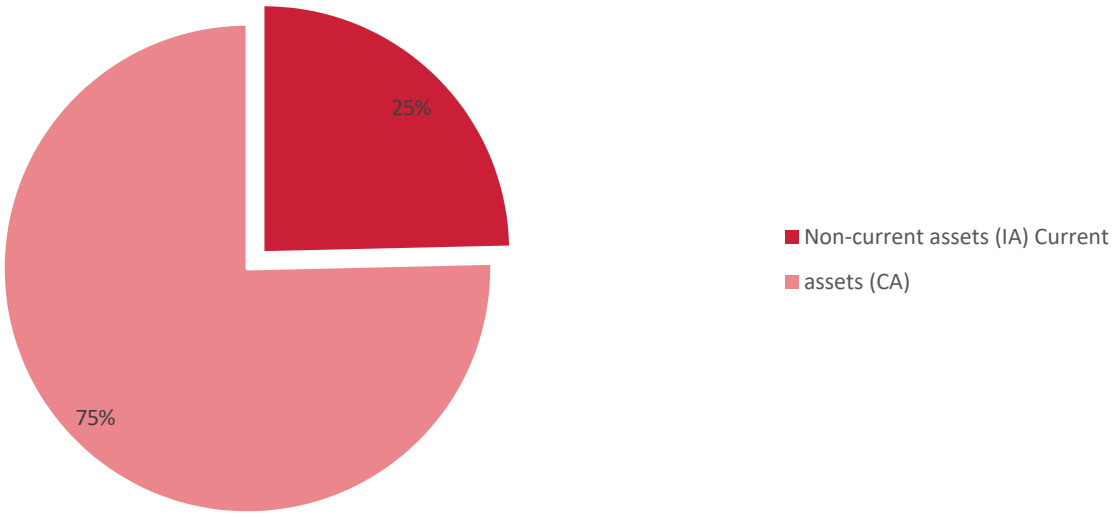
The study analyzed the asset structure of the main enterprises of the industry, which include fixed capital (non-current) and current (current) assets.

In turn, non-current assets include: fixed assets, intangible assets, income-bearing investments, tangible assets, construction in progress, deferred tax assets, long-term financial investments, other non-current assets.

Current assets include: accounts receivable, inventories, short-term financial investments and other current assets.

Below is a table of average dynamics and a graph of the structure of assets of enterprises in the industry.

Figure 5. Asset structure of the companies in the industry



Data source: Google, Global Innovation Trade

3.1.4. Turnover of assets

The analysis of business activity involves the study of various coefficients. One of the main ones is the total capital (assets) turnover ratio.

It depends on the turnover:

- value of annual turnover;
- the size of expenses (the higher the rate of turnover, the less expenses per turnover);
- the rate of turnover at each stage (acceleration at one stage entails an increase in the rate of turnover at the other stages).

The higher the turnover, the less the company needs to raise additional funds or the more products it can produce. As a result of the acceleration of asset turnover, current assets are freed up, and fewer materials, raw materials, fuel and lubricants are needed. Accordingly, the financial resources that the organization has invested in these stocks are released.

The lower the turnover rate, the more the company needs to attract additional funds and the less products it can produce.

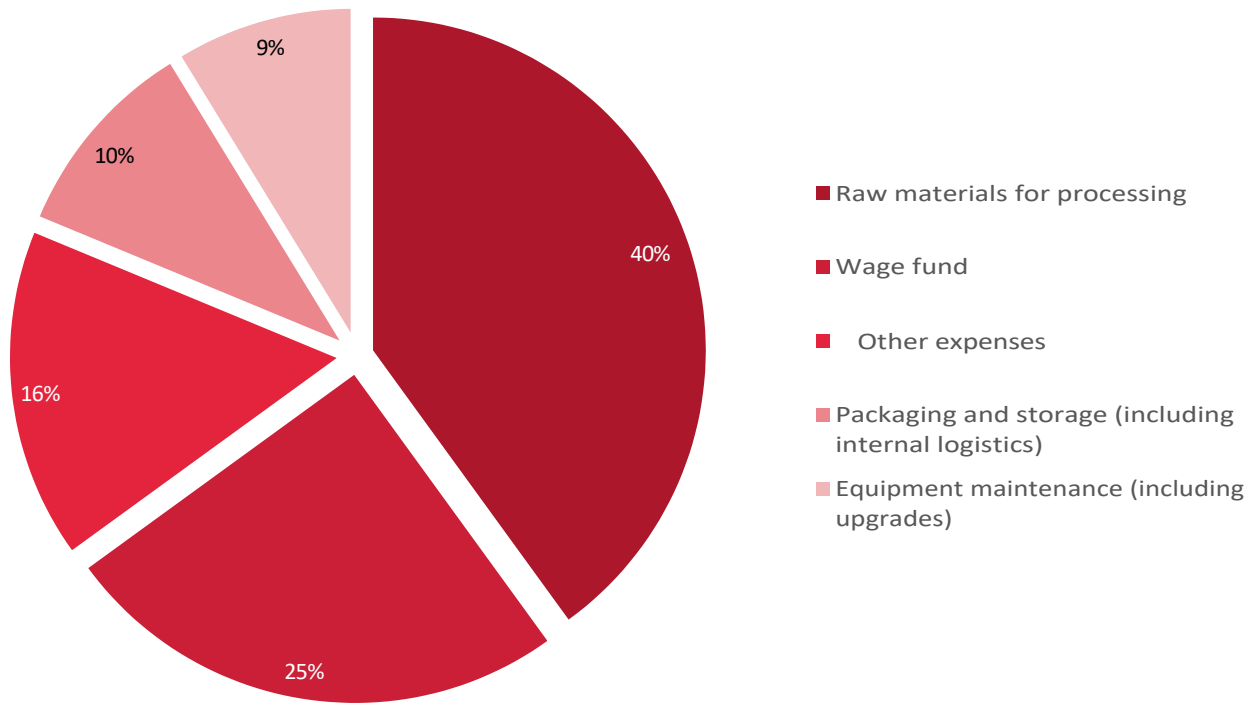
3.1.5. Typical cost structure

The main items of financial investment in the enterprise for the production of cheese can be divided into five blocks:

1. Raw materials for recycling.
2. Equipment maintenance (including upgrades).
3. Packaging and storage (including internal logistics).
4. Payroll.
5. Other expenses.

Below is a typical cost structure of the enterprises in the studied industry.

Figure 6. Typical cost structure of the studied industry



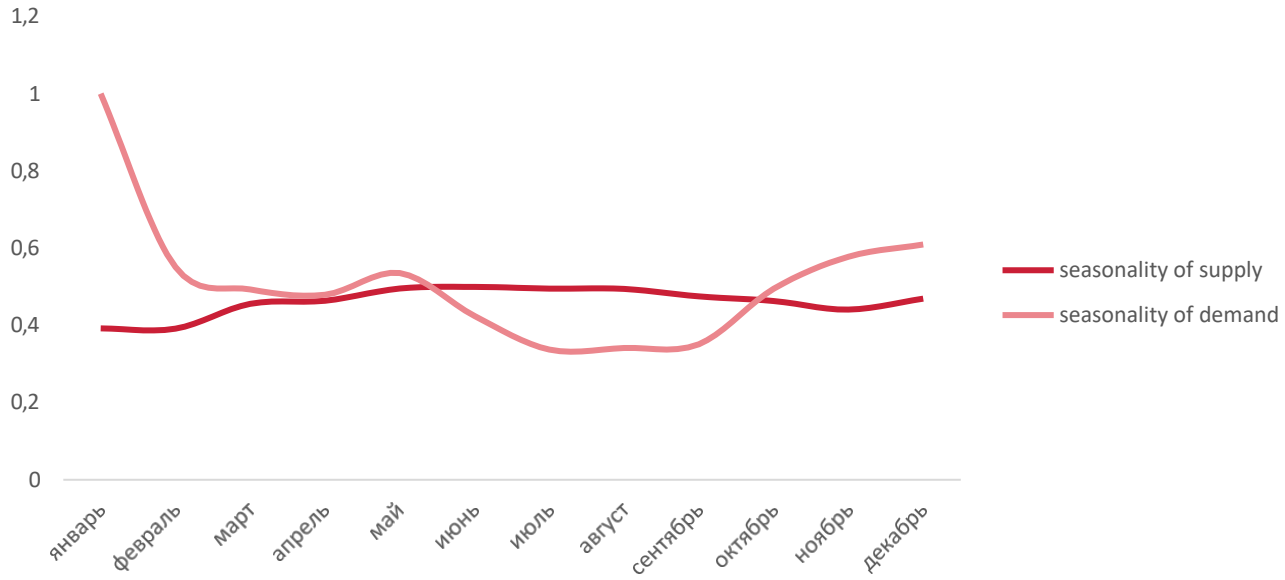
Data source: Google, Global Innovation Trade

3.1.6. Data on the seasonality of demand or supply

The seasonality of supply in the industry is weak. Today, cheese production does not correlate with the seasonality in the raw milk industry, as companies - producers of cheese replace natural raw materials with raw materials of plant origin, dried milk or enter the market with cheese products, which are positioned as "cheeses".

Seasonality of demand for cheese produced in Russia reflects the general dynamics on the market of dairy products, which are not included in the food basket, demand increases during the winter vacations and holidays.

Figure 7: Graph of seasonality of demand and supply of cheese



Data source: Google, Global Innovation Trade

According to experts, consumption of dairy products in Russia is beginning to stabilize. In 2024, after two years of sharp decline, demand for cheese will stop slumping.

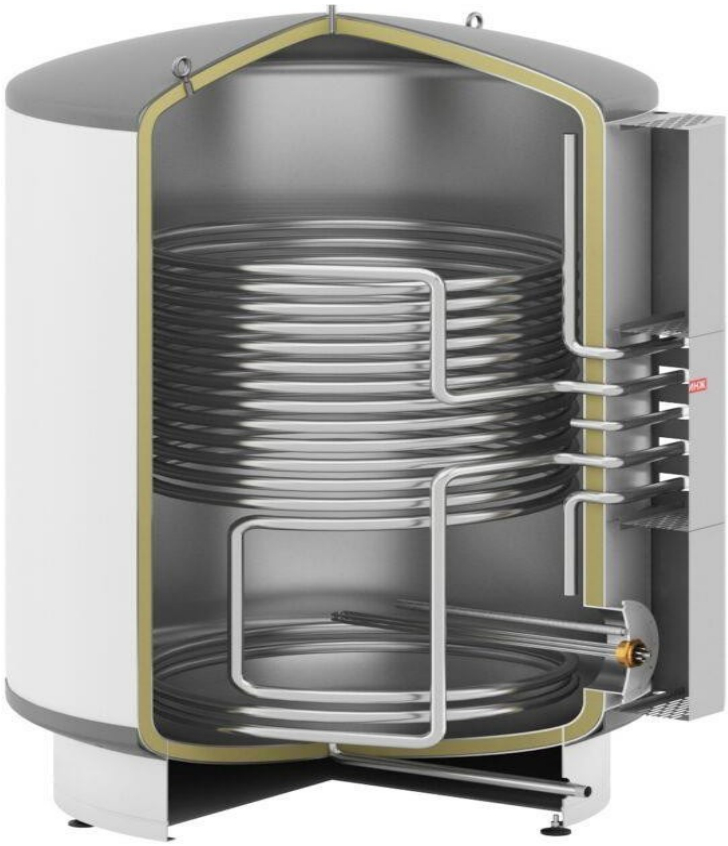
3.1.7. Utilization rate of production facilities/process equipment

According to the assessment of the Light and Food Industry, the effective capacity utilization is increasing, the transformation of the means of production is noted. Equipment utilization in the surveyed industry is low - from 30 to 60%. About 55% of the equipment of dairy processing plants is idle due to the lack of raw materials against the background of the general shortage of marketable milk in UZ.

For the last 3 years, according to experts, there has been a positive trend in the loading of production capacity in the industry in connection with the restriction of imports of a number of agricultural products and raw materials from 2021. The deficit of raw materials remains a restraining factor.

One of the ways to increase production capacity utilization is to attract investors to the industry to upgrade equipment and transfer foreign technology.

Figure 11. Equipment for cheese production



Single-circuit recuperator 500 l.

3.1.8. Speed of innovation and technological change in the industry

Today, most of the industry is occupied by companies with old production lines and processes.

Since 2021, there has been a gradual import substitution, the result of which is the rapid development of technological change in the industry.

The light and food industry notes that in the studied industry began to accelerate the improvement of technological processes, as well as the need for rapid innovation and technological change, due to the following factors:

- Modern equipment for the production of cheese does not require large production areas

- Modern equipment allows the production of several varieties of cheese at once.
- Modern production processes - from loading the cheese mixture to washing the equipment - are fully automated. Enterprises operate efficiently without the significant cost of employing more staff.

Experts note the active transfer of technology from abroad, import of new equipment, recruitment of foreign specialists in the field of cheese production. All this contributes to the reduction of production costs and, consequently, to the increase of demand for the studied products.

According to industry experts, Uzbek market leaders benefit from the actively growing market and invest in the growth of production capacity. Not only domestic companies are investing in the Uzbek cheese market, but also large international market participants.

Figure 14: Equipment for cheese production

3.1.9. Degree of state regulation of the market (industry)

Regulatory framework governing the industry market:

- Government Regulations.
- Departmental Acts.

Supranational legislation:

- Technical Regulations of the Customs Administration.

The purposes of adopting regulations:

- State regulation of the milk and dairy products market - price monitoring, customs restrictions.
- State regulation of technical requirements for products, processes of their production and circulation (technical regulations).
- State control (supervision), sanitary and veterinary measures.

3.1.10. Other important factors that characterize the industry and influence its development

During the study period, the experts note 3 main factors that affect the products under consideration:

1. Maintaining a "closed market" - embargo.
2. Reduced purchasing power.
3. Shortage of raw materials:

- growth of cheese production in UZ, reduction of imports of investigated products;
- saturation of the Russian market with local goods;
- creating high-performance jobs;
- export development.

A decrease in purchasing power, a shortage of raw materials have a negative impact on the development and increase in production capacity of the products under study.

According to experts, the consumption of cheese has been declining in the last 5 years. Due to rising cheese prices and a decrease in purchasing power in the consumption structure, the share of cheaper cheese products has increased to 25%.

Figure 14: Equipment for cheese production

3.2. Major trends in the market

According to the State Statistics Committee of the Republic of Uzbekistan on January 1, 2023, the number of cows in the country as of January 1, 2023 amounted to 4.9 million heads (+2% or +99.6 thousand heads compared to 2021), of which 4.5 million heads are kept on dekhan farms, 367 thousand heads are kept on farms, 82 thousand heads - in agricultural enterprises.

In Uzbekistan, the non-commodity sector, dekhan farms, dominates in dairy cattle breeding, but farms and agricultural enterprises show high growth rates. The number of cows in dekhan farms increased by 14.4% compared to 2015, the increase in the number of cows in farms by 2022 compared to 2015 was 95.3%, in agricultural enterprises 122%.

The number of cows per square kilometer in Uzbekistan in 2022 was 11 heads, in Russia by comparison this indicator is 0.3 heads. There are 7 people per cow in Uzbekistan and 31 people per cow in Russia. It is worth noting that in Uzbekistan, the population grew by an average of 2% per year in 2015-2022.

Raw milk production in Uzbekistan reached 11.6 million tons in 2022, 3% more than in 2021 and 29% more than in 2015. 93.4% of milk is produced in dekhan farms, 5.4% - in farms, 1.2% in agricultural enterprises. Dekhan farms produced 10.8 million tons in 2022, 3% more than in 2021. Farms produced 632,200 tons in 2022, 8% more than in 2021. Farms produced 135.8 thousand tons, 25% more than in 2021.

In terms of milk production in Uzbekistan, Samarkand province is the leader (1.4 million tons in 2022), followed by Kashkadarya province (1.3 million tons) and Ferghana province (1.1 million tons).

The current productivity in Uzbekistan is low, in 2022 the average milk yield in dekhan farms was 2405 kg per cow (+1% compared to 2021), in farms 1723 kg per cow (-2% compared to 2021), in agricultural enterprises - 1662 kg (-3%).

Dairy industry in Uzbekistan

According to estimates of the analytical network IFCN, the marketability of milk in Uzbekistan is only 30%, in fact, not more than 3 million tons are received for processing.

According to the State Statistics Committee, large enterprises in Uzbekistan produced 389.4 tons of butter and 5659.1 tons of yogurt in January-December 2022.

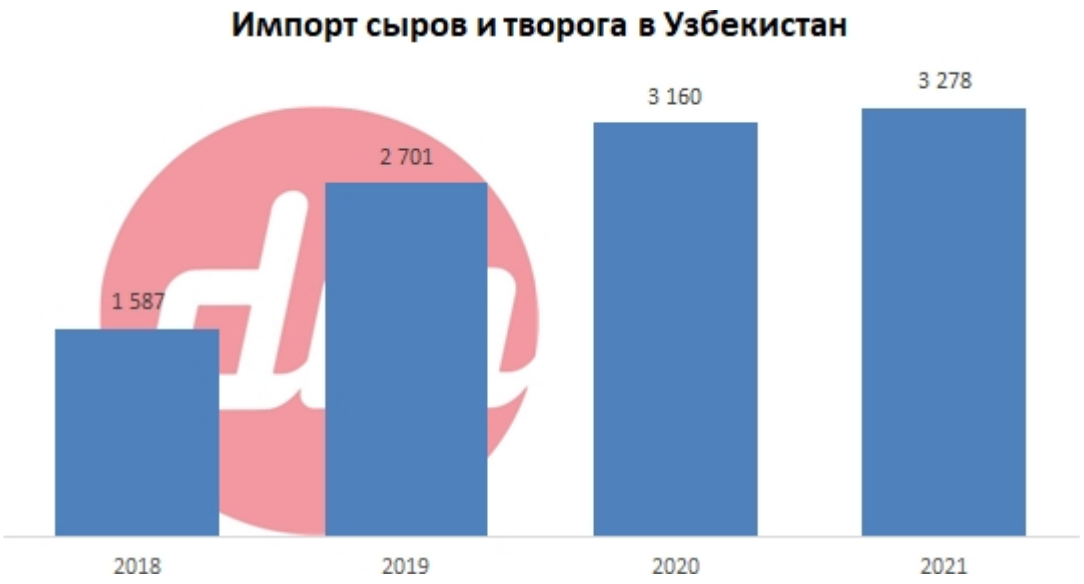
Imports of dairy products to Uzbekistan

Imports of milk and cream to Uzbekistan according to UN Comtrade in 2021 amounted to 3.1 thousand tons, 946 tons more than in 2020. The largest supplier of milk and cream to Uzbekistan in 2021 was the Republic of Belarus (55%), followed by Russia (31%).

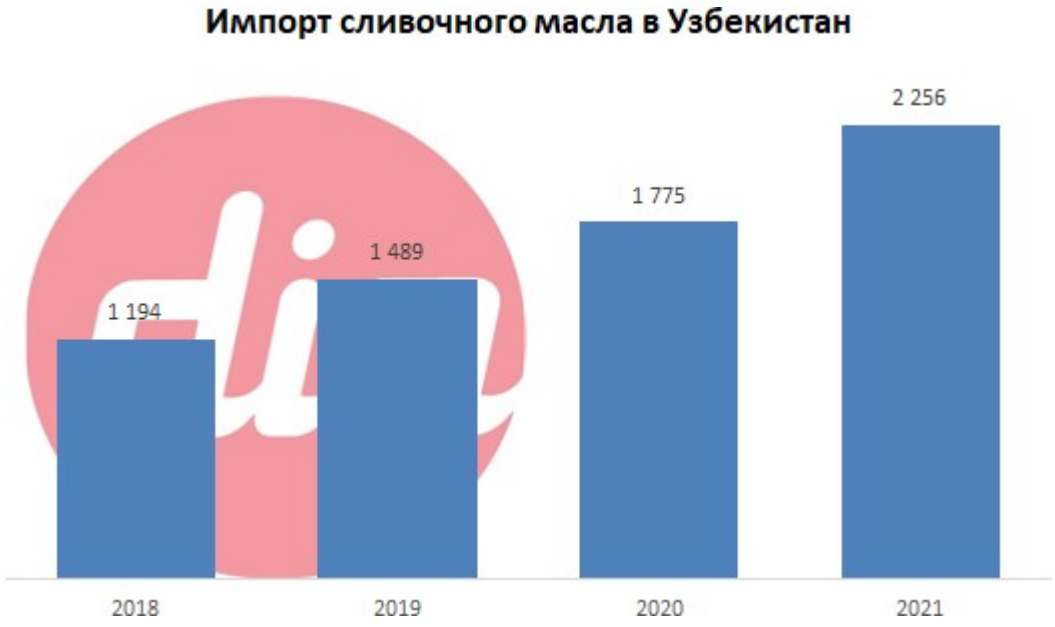
Imports of yogurt in 2021 was 2 thousand tons, 277 tons less than in 2020. The Republic of Kazakhstan accounted for 89% of the volume.

Imports of other sour-milk products in 2021 were 4.1 thousand tons, 503 tons less than in 2020. 95% of deliveries were from Russia.

Imports of cheese and cottage cheese in Uzbekistan in 2021 was 3.3 thousand tons, 117 tons more than in 2020. 54% of supplies are from Russia, 20% from the Republic of Belarus.

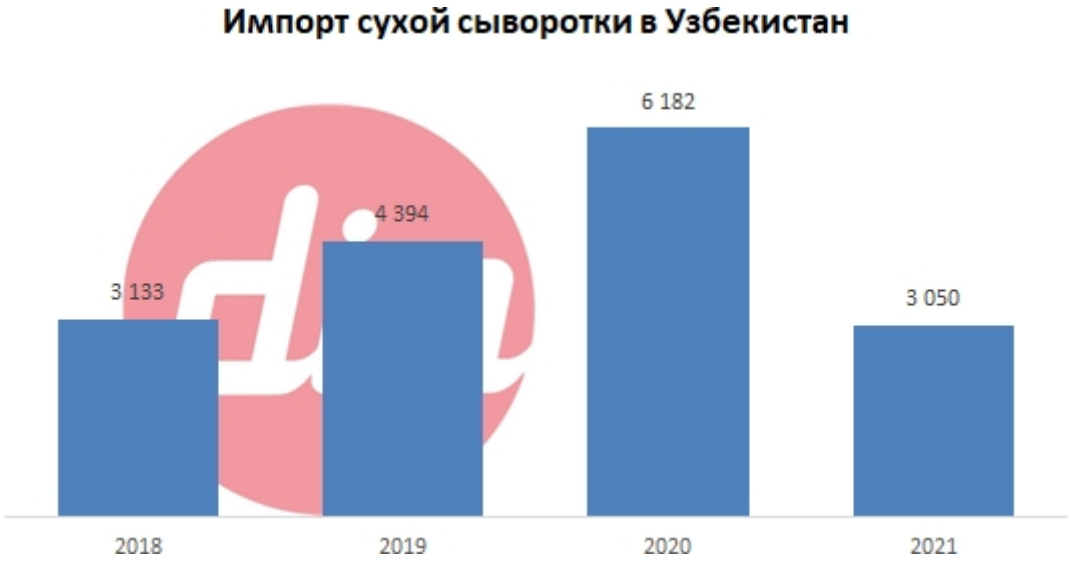


Imports of butter in 2021 decreased by 481 tons to 2.3 thousand tons. 34% supplies from France, 16% from New Zealand, 13% from the Republic of Belarus.



Imports of COM in 2021 amounted to 2.7 thousand tons (-113 tons), imports of CCM only 8 tons (-293 tons). The largest supplier of COM is the Republic of Belarus (51%); Iran (16%) and Kyrgyzstan (17%) also supply COM to Uzbekistan. The Republic of Kyrgyzstan was the only supplier of Semolinum in 2021.

Imports of dry whey in 2021 was 3 thousand tons, 3.1 thousand tons less than in 2020. The largest supplier was the Republic of Belarus (32%).



Supplies of condensed milk to Uzbekistan in 2021 were 337 tons, 872 tons less than in 2020. 56% of supplies in 2021 were from Russia, 22% from Ukraine.

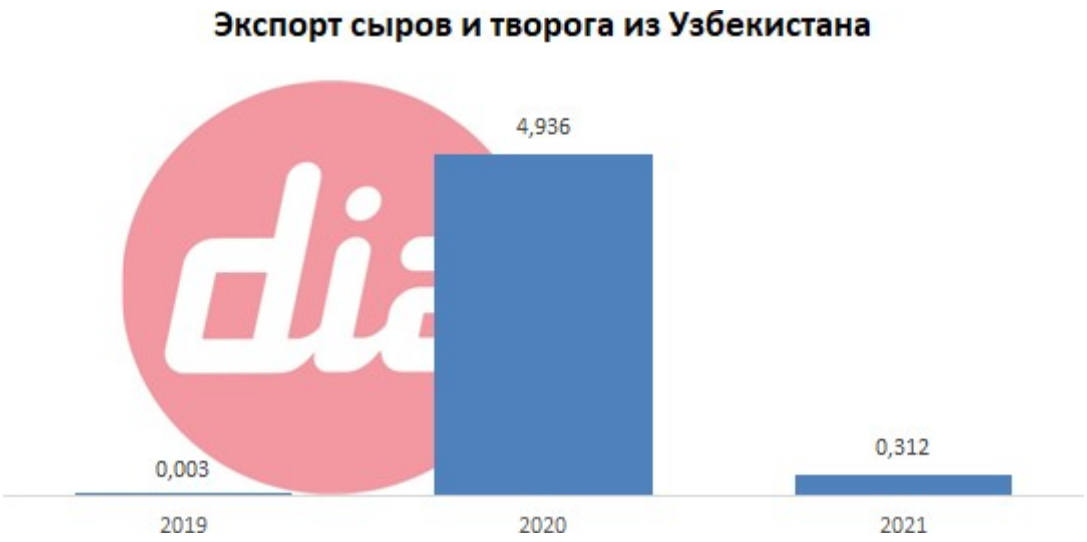
Export of dairy products from Uzbekistan

Exports of dairy products from Uzbekistan are small at the moment, mainly small amounts of supplies go to the countries of Central Asia.

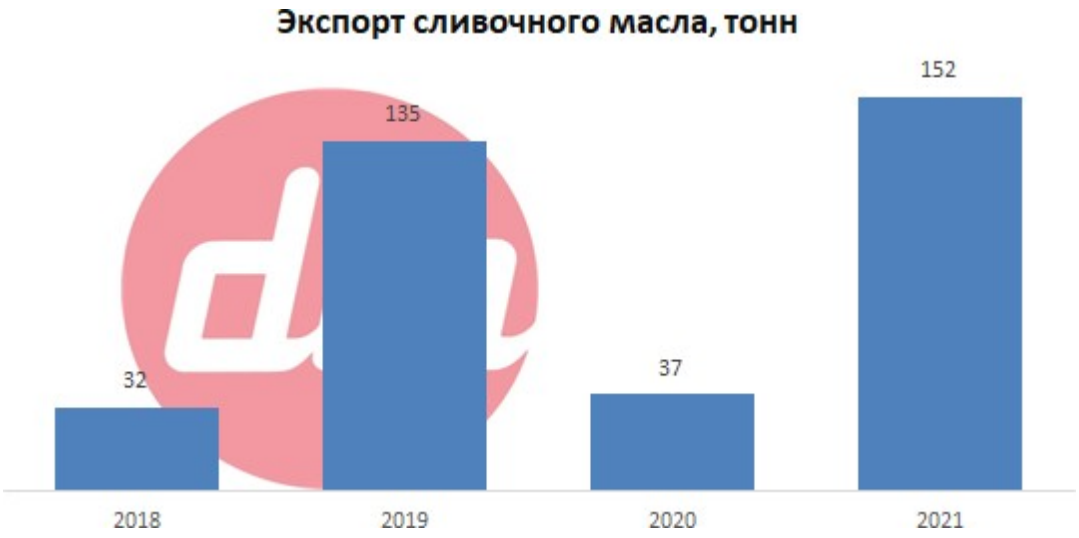
Milk and cream exports from Uzbekistan in 2021 amounted to 312.8 tons, 42 tons less than in 2020. 61% of milk and cream exports from Uzbekistan went to Tajikistan, 37% to Afghanistan, and 2% to Turkmenistan.

Export of sour-milk products in 2021 was 6.2 tons, 60.5 tons less than in 2020. 65% of this volume was supplied to the US market, 28% to Kazakhstan, and 7% to the Czech Republic.

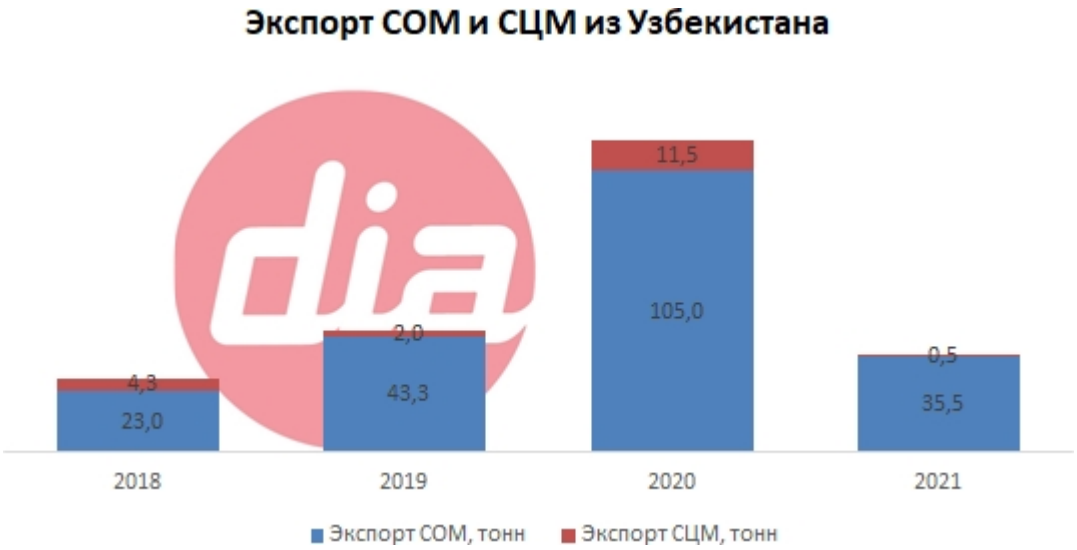
Exports of cheese and cottage cheese in 2021 from Uzbekistan was only 0.3 tons, 4.6 tons less than in 2020. 0.14 tons (55%) was supplied to the U.S., 0.1 ton (38%) supplied 38% to Kazakhstan.



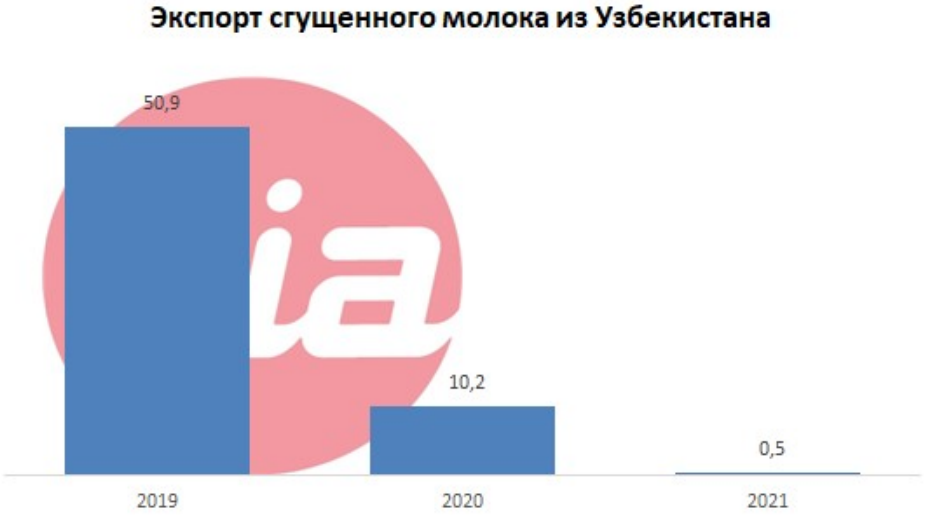
Export of butter in 2021 increased by 115 tons to 152 tons. 78% of deliveries were to Georgia and 22% to Iraq.



In 2021, exports of COM amounted to 35.5 thousand tons (-69.5 tons), exports of SCM only 0.5 tons (-11 tons). 75% of COM exports were delivered to Tajikistan, 0.3 tons of CCM were also delivered to Tajikistan, and 0.2 tons of CCM were delivered to Kyrgyzstan. Also in 2021 Uzbekistan supplied 0.5 tons of dry whey to the United States.



In 2021, Uzbekistan exported 0.5 tons of condensed milk to Tajikistan.



4. Analysis of sales markets and procurement of raw materials

4.1. Forecast of market development of products (semi-hard cheeses and "Picatto" cheese) up to 2030.

Experts predict that in the next 5 years will continue the positive trend of growth of the market of cheese production, as well as the investment attractiveness of the industry.

According to expert estimates, the growth rate of production and sales of semi-hard and soft cheeses will remain at the level of 2-3% per year. Against the background of slowing consumption of cheese experts predict redistribution of shares between its segments. In their view, in the consumption structure the share of semi-hard cheeses and soft cheese "Picatto" will increase due to reduction of the share of processed cheeses. Soft cheeses are able to close the deficit of cheeses in RU, their ripening time is from a few hours to several days. In this regard, most of the cheeses of this group do not require large working capital. At the same time there is a high profitability of production of soft cheeses, including "Picatto" cheese.

According to experts of the Light and Food Industry, Picatto cheese can occupy a relatively vacant niche in the sales market.

Large retailers have turned their attention to local producers, so the demand for sales of products will be high.

There is a growing group of consumers who are willing to pay more for high quality.

4.2. Potential sales market capacity

The potential capacity of the market has grown over the past 3 years, and experts suggest its further growth.

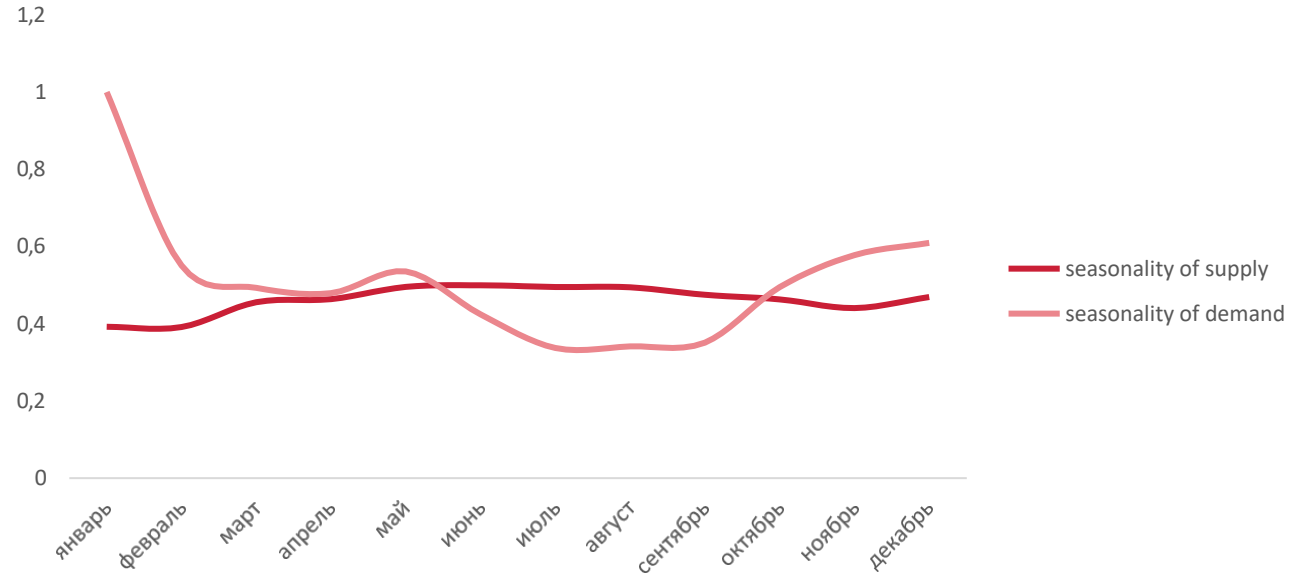
As a result of analysis of market saturation indicators in paragraph 2.2., analysis of production of semi-hard cheese in paragraph 1.2., analysis of prices in the region in paragraph 2.4. and forecast of sales development in the industry in paragraph 2.1., the potential market capacity can be estimated at 300-400 thousand tons of studied p r o d u c t s per year for the period up to 2030.

4.3. Analysis of seasonality

The seasonality of supply in the industry is weak and cheese production does not correlate with the seasonality of raw milk production. Cheese producing companies replace natural raw materials with raw materials of plant origin, dried milk or enter the market with cheese products, which are positioned as cheeses.

Seasonality of demand for Uzbek-made cheese reflects the general dynamics in the market of food products, which are not included in the food basket - demand increases during the winter vacations and holidays.

Figure 8. Graph of seasonality of demand and supply of cheese



Data source: Yandex.Direct, estimate by Global Innovation Trade specialists

According to experts in Uzbekistan, the consumption of dairy products is beginning to stabilize.

4.4. Competition on the sales market. List and brief description of the main competitors

According to market experts, in the consumption structure of cheeses produced in Uzbekistan by type at the moment, more than half of the consumption accounts for semi-hard varieties. The smallest share is taken by soft cheeses - about 2%.

Before the food embargo, Uzbek cheese accounted for only 45% of store shelves; now the share of domestic brands is about 80%.

The following are the main competitors - manufacturers of the studied products

Table 10. The main major competitors in the sales market of the studied products

Company name	Contact information	Production capacity, tons/month
Gold Tek LLC	r. Tashkent, Keles str. 31A tel.: +(71) 227-81-24 e-mail: sagban@inbox.ru	N/A
Milk Impex LLC	region. Tashkent, r. Zangiata settlement Katartal т. +(71) 270-75-71	N/A

Company name	Contact information	Production capacity, tons/month
JV Bio Sut LLC	region. Tashkent, r. Kibray 1 Sheralieva St., Argin village tel. +(71)286-02-42 e-mail: bio-sut@mail.ru	N/A
Tillo Domor	region. Khorezm, city of Urgench, Yangi Shavot str. Yangi Shavot str. 21 т. +(71)287-33-11 e-mail: tillodomor@rambler.ru	N/A
Kamilka Products LLC	region. Tashkent, r. Kibray village of Salar т.: +(78)150-60-11 e-mail: kamilka-pro@mail.ru	N/A
PE "PureMilky Works"	region. Samarkand, Taylak Msg. Kurgancha т.: +(99)720-74-79 e-mail: info@puremilky.uz	N/A

Data source: expert data, //http:goldenPages.uz

4.5. The main sales channels and methods of sales promotion, market conditions

The main sales channels:

1. Republican, regional retail chains.
2. Freestanding retail outlets (including farm stores).
3. Catering outlets (including restaurants and production sites).
4. Fairs and exhibitions.
5. Distribution and wholesale buyers.

The main methods of sales promotion:

1. Advertising in the media and the Internet (including SMM, SEO, etc.).
2. Direct sales (distribution, wholesale customers, catering outlets).
3. Discounts, promotions and more.

The experts of the Light and Food Industry noted that the products get on the shelves of retailers, filling the empty niches, but this does not ensure future customer loyalty even with the "first purchase". Sales promotion should be conducted at all levels at once, starting with stable product quality and ending with competent positioning, work on the image of the product and the manufacturer itself.

4.6. Planned market share of the customer's project

Global Innovation Trade estimates that at maximum capacity utilization in
310 tons per month, the customer's planned share in the cheese production market will be about 1%.

4.7. Planned main competitive advantages of products

Main competitive advantages:

1. Production of premium and sub-premium cheeses.
2. Application of Estonian technologies for cheese development and production.
3. Natural ripening of cheeses without additional, accelerating enzymes.
4. European equipment, allowing the production and packaging of cheese in accordance with sanitary standards.
5. Pricing in the market.
6. The market positioning is European cheese.

5. Organizational Plan

5.1. Personnel plan

In order to form a staff schedule of the production enterprise, the following were analyzed: the concept of the project, the main business processes, the volume of basic and auxiliary services. As a result, the following structural units were formed in the staff schedule:

1. Administrative and managerial staff.
2. Key production personnel.
3. Auxiliary Personnel.

In the calculation part of the business plan a plan of payroll was formed based on the working conditions of the above-mentioned structural units.

Beginning in October 2024, the director, deputy director, and two full-time accounting department employees are scheduled to work to ensure the preparatory organizational issues of the project.

By the time of the launch of the production process is planned output of the main and auxiliary production personnel in the number of 31 staff units.

Employee work schedule: administrative and management personnel work daily, main and auxiliary production personnel work in shifts in two shifts.

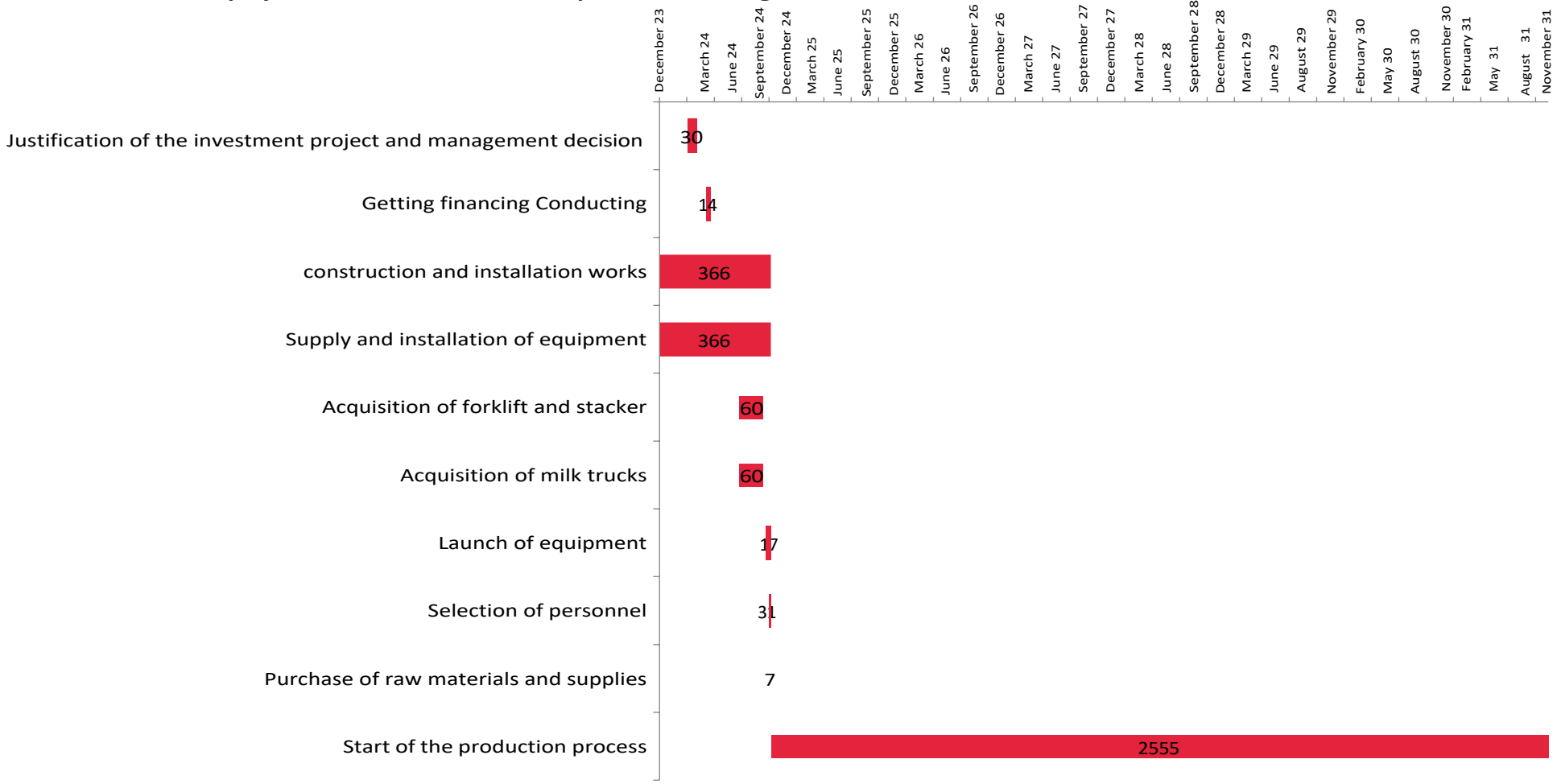
5.2. Project implementation schedule

The stages and timing of their implementation on the project are shown in the diagram below.

In 2023, part of the construction and installation work on the reconstruction of the production building was carried out, which was paid from the own funds of the Initiator of the project. There were also developed recipes, logos, design-projects of a line of cheeses planned to be produced.

After receiving the loan in June 2024, the plan is to finish construction and installation work, purchase production equipment and vehicles by the end of December 2024. In January 2025, it is planned to launch a plant for processing milk into semi-hard cheeses and Picatto cheese.

Diagram 1. Schedule of the project of semi-hard cheese and picatto cheese organization



Source: Information of the Project Initiator

6. Financial plan

6.1. Conditions and assumptions adopted for the calculation

Assumptions about production volumes

The calculation takes into account that the maximum production volumes per day:

- semi-hard cheeses - 7 tons;
- butter - 500 kg;
- Picatto soft cheeses - 3 tons.

In this calculation, it is assumed that the actual capacity load is planned at the level shown in the table below.

Table 11. Data on production capacity utilization

Indicators	2025 year	2026 year	2027 year	2028 year	2029 year	2030 year	2031 year	2032 year	2033 year
Data on production capacity utilization	60%	80%	85%	85%	85%	85%	85%	85%	85%

Source: Global Innovation Trade analysis

Assumptions about price

The main products of the project are semi-hard cheese, Picatto cheese and butter. Prices for the products, as well as prices for raw materials are set in the project at the level of current average market prices.

Assumptions about investment costs

Investment costs are divided into 5 categories:

1. Preparatory work.
2. Carrying out construction work and procurement of equipment.
3. Purchase of raw materials.
4. Cache-flo deficit coverage.

Assumption about the discount rate

The project adopted a discount rate of 10.7% per year. Below is the justification for the calculation of this indicator.

The cumulative construction method is based on summing up the risk-free income rate and risk premiums for investing in the enterprise being evaluated. The discount rate is calculated using WACC (Weighted Average Cost of Capital):

$$Rx= (1 - T) * a *Rcr+b * _{Rin},$$

where a - the share of borrowed capital in the company's capital structure,

b is the share of equity, with a + b = 1;

T - income tax rate;

Rcr- the cost of credit, calculated as the effective rate on the loan (assuming that interest is fully expensed);

Rin-value of equity.

We present below the calculation according to this methodology.

Table 12. Determination of the cost of equity

Constituents	%
The size of the risk-free rate*	8,5%
Amount of country risk adjustment	1,0%
Amount of industry risk adjustment	1,5%
Amount of other risk adjustment	1,0%
Cost of equity	12,0%

Source: Global Innovation Trade analysis and calculations

Then, based on this, the discount rate was determined.

Table 13. Determination of the discount rate

Constituents	%
Share of borrowed capital	33,0%
Equity share	67,0%
Income tax	15,0%
Cost of equity	12,0%
Cost of borrowed capital	11,8%
Total discount rate	**10,7%**

Source: Global Innovation Trade analysis and calculations

Thus, the expert calculation of the discount rate was **10.7%** per annum.

Assumptions about revenue, profit and loss projections (P&L) and cash flow (CFP)

Revenue from livestock products sales is calculated based on forecasted production volumes and planned prices of the products produced.

All of the above-mentioned indicators were used to construct revenue, P&L, and DDS plans.

6.2. Input data

6.2.1. Nomenclature and product prices

The main types of products produced under the project and their projected prices are shown in the table below.

Table 14. Nomenclature of products manufactured under the project and their prices

Product name	Unit of measure	Price per unit, $/kg
Semi-hard cheeses	$/kg	7,8
Picatto soft cheeses	$/kg	5,4
Butter	$/kg	5,4

Source: Global Innovation Trade analysis and calculations

6.2.2. Production plan

The projected production plan is based on the assumptions and assumptions discussed in Section 7.1 and is shown in the table below.

Table 15. Production plan

Indicators	2025 year	2026 year	2027 year	2028 year	2029 year	2030 year	2031 year	2032 year	2033 year
Production volume of hard cheese per day, tons	4,20	5,60	5,95	5,95	5,95	5,95	5,95	4,20	5,60
Production volume of butter per day, tons	0,30	0,40	0,43	0,43	0,43	0,43	0,43	0,30	0,40
Production volume of Picatto soft cheeses per day, tons	1,80	2,40	2,55	2,55	2,55	2,55	2,55	1,80	2,40

Source: information of the project initiator, analysis and calculations of Global Innovation Trade

6.2.3. Nomenclature and prices of raw materials, supplies, etc.

A list of the main raw materials purchased for production and their prices are shown in the table below.

Table 16. Nomenclature and prices for raw materials and supplies

Prices for raw materials	Unit.	Value
Raw Material	USD per 100 grams of finished product	0,3
Packaging for semi-hard cheeses	$/each.	0,1

Pikatto soft cheese packaging	$/each.	0,05
Butter packaging	$/each.	0,02

Source: information of the project initiator, analysis and calculations of Global Innovation Trade

6.2.4. Calculation of direct material costs

The direct material costs of a project are the costs that directly depend on the volume of services provided:

- expenses for the payroll of production personnel;
- the cost of energy resources: electricity and water supply;
- other variable costs, such as: communication and Internet costs, office supplies, fuel and lubricants, chemicals for washing glassware;
- advertising and marketing costs.

The list of the main items of direct material costs and their values when reaching production capacity in the table below.

Table 17. Direct material costs, thousand dollars.

Cost item	Unit of measure	Value
Expenses on payroll of core personnel	thousand dollars per year	108
Raw materials costs	thousand dollars per year	336
Energy and water costs	thousand dollars per year	21
Payment to production technologist by contract	thousand dollars per year	52
Repair of equipment	thousand dollars per year	36
Other variable costs	thousand dollars per year	12
Advertising costs, marketing events	thousand dollars per year	18
Total variable costs including VAT	**thousand dollars.**	**584**

Source: information of the project initiator, analysis and calculations of Global Innovation Trade

Direct material costs are indexed according to the volume of services sold. Calculation of direct material costs of the project by years is presented in the following table.

Table 18. Direct material costs of the project, thousand dollars.

Parameter/year	2024 year	2025 year	2026 year	2027 year	2028 year	2029 year	2030 year	2031 year
Operational variables variables	-	460	559	584	584	584	584	584

Source: Global Innovation Trade analysis and calculations

6.2.5. Number of employees and salaries

The project will create at least 35 new jobs with a stable income and all social guarantees, including four full-time administrative and management personnel, 18 full-time core production personnel and 13 full-time auxiliary production personnel.

The average salary of 1 employee of the enterprise will be $26 thousand per month. The personnel plan and payroll are shown in the table below.

Table 19. Staff schedule and payroll of semi-hard cheese and picatto cheese plant

№	Job title	Number of workers	Salary of one employee, thousand dollars/month.	Number of months worked in 2024 year	Total payroll in 2024, thousand dollars.	Number of months worked in 2025 year and beyond	Total payroll from 2025, thous dollars.
1	**Administrative and managerial staff**	**4**			**5,8**		**23**
1.1	Director	1	0,5	3	1,4	12	6
1.2	Deputy Director	1	0,5	3	1,4	12	5,7
1.3	Accounting	2	0,5	3	2,8	12	11
2	**Production personnel**	**18**			**0**		**61**
2.1	Head of Production - Technologist	1	0,3		0	12	3,6
2.2	Emergency room attendant	1	0,3		0	12	3,6
2.3	Hardware worker	1	0,3		0	12	7,2
2.4	Employee of the cheese department	2	0,3		0	12	3,6
2.5	Soloist employee	1	0,3		0	12	7,2
2.6	Employee of the maturation department	2	0,3		0	12	18

№	Job title	Number of workers	Salary of one employee, thousand dollars/month.	Number of months worked in 2024 year	Total payroll in 2024, thousand dollars.	Number of months worked in 2025 year and beyond	Total payroll from 2025, thous dollars.
2.7	Employee of the packing and packaging department of cheeses	5	0,3	0	12	7,2	
2.8	Oil production departments	2	0,3	0	12	3,6	
2.9	employee of the centralized sip-wash department	1	0,3	0	12	7,2	
2.10	Laboratory staff	2	0,3	0	12	0	
3	**Auxiliary production personnel**	**13**		**0**		**46,8**	
3.1	Milk truck driver	2	0,3	0	12	7,2	
3.2	Driver of an electric car	2	0,3	0	12	7,2	
3.3	Electrician	1	0,3	0	12	3,6	
3.4	Locksmith	1	0,3	0	12	3,6	
3.5	Boilershchik	4	0,3	0	12	14,4	
3.6	Janitor	1	0,3	0	12	3,6	
3.7	Wiper	1	0,3	0	12	3,6	
3.8	Warehouse Clerk	1	0,3	0	12	3,6	
	Total	**35**		**5,8**		**131**	

Source: information of the project initiator, Global Innovation Trade calculations

With a total headcount of 35 people and the established mode of operation annual payroll is equal to 131 thousand dollars.

6.2.6. Overhead costs

The fixed production overheads of a project are costs that are independent of changes in sales volume. They include, as a rule, maintenance and management costs. The main fixed costs are shown in the table.

Table 20. Permanent production overhead costs, thousand dollars.

Cost item	Unit of measure	Value
Expenses on payroll of administrative and auxiliary production personnel	thousand dollars per year	23
Heat energy costs	thousand dollars per year	22
Costs of site security	thousand dollars per year	35.7
Other fixed costs, including communication, office supplies, transportation costs, maintenance of premises, contingencies	thousand dollars per year	99,4
Total fixed costs including VAT	thousand dollars per year	**180**

Source: Project Initiator data, analysis and calculations by Global Innovation Trade

6.2.7. Capital expenditures and depreciation

The amounts of capital expenditures and the calculation of depreciation accrued are shown in the table below:

Table 21. Capital expenditures and depreciation

Subject	The linear method of accrual	Amount	2024 year	2025 year	2026 year	2027 year	2028 year	2029 year	2030 year	2031 year
Buildings and structures	Group 8, useful life 20-25 years	2 405	120	120	120	120	120	120	120	120
Machinery and equipment	Group 5, Usage period 7-10 years	2 955	295	295	295	295	295	295	295	295
Accrued depreciation of fixed assets				415	415	415	415	415	415	415

Source: Project Initiator data, analysis and calculations by Global Innovation Trade

6.2.8. Turnover rate of current assets and liabilities

Duration of turnover of current assets - characterizes the duration of turnover of current assets, showing the average stay of current assets in the process of turnover in days.

The turnover rates of current assets and liabilities are shown in the table below.

Table 22. Rates of turnover of current assets and liabilities

No. n/a	Formation of stocks and reserves	Contractual terms of rates and payment	Incomplete production	Share of advance paymen 50%	Term	Percentage of the payment made on maturity	Payment due date
1.	Finished product	Insurance pass 1 month	1-3 months	50%	7 days	25%	15 days
2.	Direct material costs	Insurance pass 1 month	1 month	50%	8 days	25%	15 days
3.	Overhead costs	Insurance pass 15 days	-	-	-	-	-
4.	Wages	Payment period 2 times a month	-	-	-	-	-

Source: Global Innovation Trade analysis and calculations

6.3. Calculation of the cost of production

The estimated cost of production under the project is shown in the table below.

Table 23. Cost of production, thousand dollars.

Parameter/year	Values starting from 2025
Costs per 1 ton of semi-hard cheese	0,5
Costs per 1 ton of Picatto soft cheese	0,2
Costs per 1 ton of butter	0,3

Source: Global Innovation Trade analysis and calculations

6.4. Revenue Calculation

The revenue plan for the project period is made taking into account the production plan and average prices of the project products and is presented in the table below.

Table 24. Projected revenues from sales of the project products

Parameter/year	2025	2026	2027	2028	2029	2030	2031
Revenue, thousand dollars including VAT, total	10 921	14 561	15 471	15 471	15 471	15 471	15 471
Including:							
Semi-hard cheeses	8 120	10 827	11 503	11 503	11 503	11 503	11 503
Pi-catto soft cheeses	400	533	567	567	567	567	567
Butter	2 400	3 201	3 401	3 401	3 401	3 401	3 401

Source: Global Innovation Trade analysis and calculations

6.5. Initial working capital requirement

The December 2024 operating expenditure shortfall will require an investment of $23,500 of equity in December 2024.

For the initial purchase of raw materials during the launch of the production process (January 2025), it is planned to obtain a revolving credit in the amount of 600 thousand dollars.

Then the need for working capital will be provided by the proceeds from the sale of products.

In addition, after receiving an investment loan is planned to open a deposit account, which will be placed its own funds in the amount of 264 thousand dollars to pay interest on the loan within 1 year.

6.6. Investment costs

The list of investment costs by cost items and timing of cash investments is given in the table below.

Table 25. Investment costs of the project

№	Cost item	Investments 2023, thousand dollars including VAT	Investments 2024, thous. dollars with VAT	Investments TOTAL, Thousands of dollars including VAT
1	Construction of a supply pipeline, including a metering station	-	27	27
2	Installation of walls and floors in the boiler room	-	3	3
3	Increasing the electrical capacity of the substation	13	119	133
4	Land Improvement	-	65	66
5	Delivery and installation of gurza-type protective wire on the perimeter fence	-	2	2
6	Repair of production premises and utility systems	254	2 400	2 654
7	Supply and installation of gas boiler equipment	-	198	198
8	DHW tanks 2 pcs. in the boiler room	-	26	26
10	Water measuring unit fire pumps	-	19	19
11	Supply and installation of equipment for steam boiler room	-	8	8
12	Supply and installation of compressed air compressor equipment	3	3	7
13	Supply and installation of equipment for interior cooling	-	110	110
14	Supply and installation of compressor cold supply equipment	18	160	177
15	Ventilation equipment	20	37	57
16	Equipment and installation of sewage metering unit	-	8	8
17	Supply and installation of racks for ripening and storage of cheese	-	9	9
18	Generator ready block container - 2 pcs.	-	183	183
19	Plant's main switchboard design	5	19	24
20	Delivery and installation of the beam (salting)	-	3	3

№	Cost item	Investments 2023, thousand dollars including VAT	Investments 2024, thous. dollars with VAT	Investments TOTAL, Thousands of dollars including VAT
21	Supply of technological equipment "Heat exchangers	-	59	59
22	Equipment checkpoints of the plant	-	14	14
23	Design work (ecology, fire safety, etc.)	-	24	24
24	Equipment for milk processing	18	162	180
25	Repair of process equipment during installation	-	24	24
26	Process automation software revision (development, delivery and installation)	-	240	240
30	Interior doors; gates and fire curtains	-	19	19
31	Technological equipment of the production line for hard and cottage cheese, butter	-	1 944	1 944
32	Factory forklift and stacker	-	103	103
33	Acquisition of milk trucks 7-10 tons - 2 pcs.	-	108	108
	Total project investments	***332***	***6 100***	***6 432***

Source: Information of the Project Initiator

6.7. Calculation of profits, losses and cash flows

The projected income statement is shown in the table below.

Table 26. Forecast profit and loss statement

Income / expense item	2024 year	2025	2026	2027	2028	2029	2030	2031
Revenues from sales without VAT	0	10 921	14 562	15 472	15 472	15 472	15 472	15 472
Direct payments without VAT	0	460	560	584	584	584	584	584
Gross income	0	10 462	14 002	14 887	14 887	14 887	14 887	14 887
General business fixed costs excluding VAT	54	180	180	180	180	180	180	180

Taxes (other than income tax)	84	139	130	121	111	102	93	84
EBITDA	-138	10 143	13 692	14 587	14 596	14 605	14 614	14 623
EBITDA, % (to the output-handle) medium	0%	92,9%	94,0%	94,3%	94,3%	94,4%	94,5%	94,5%
Depreciation of fixed assets	416	416	416	416	416	416	416	416
EBIT	-554	9 727	13 276	14 171	14 180	14 189	14 198	14 207
Payment of interest on loans and borrowings	147	258	133	17	0	0	0	0
Profit (Loss) before taxation	-701	9 469	13 143	14 154	14 180	14 189	14 198	14 207
Tax under simplified tax system	0	1 420	1 971	2 123	2 127	2 128	2 130	2 131
Undistributed profit	-701	8 049	11 172	12 031	12 053	12 061	12 068	12 076
Return on sales	0%	74%	77%	78%	78%	78%	78%	78%

Source: Global Innovation Trade analysis and calculations

Calculations show that the project becomes profitable from the second year of implementation.

6.8. Sources, forms and conditions of financing

The project provides for the use of own funds, investment and turnover loans. The sources and amounts of project financing are given in the table below.

Table 27. Sources of project financing, thous.

Project financing	Value
The total amount of project financing	7 320
including project investments, of which	6 432
borrowed funds	1 800
Own funds, total	4 920
including co-financing of investments	4 632
day-to-day operations	288
Revolving credit	600

The project provides for an investment loan for a period of 3 years. The terms and conditions of the loan are shown in the table below.

Table 28. Terms of investment lending

Terms of the investment loan	The Year	Month
Interest rate on the loan	14%	1,17%
Loan term	3	36
Deferral of principal payments	1	12

Source: information of the project initiator, Global Innovation Trade calculations

The investment loan is scheduled for June 2024 in the amount of $1,800,000.

To guarantee interest payments on the loan for the first year, it is planned to open a deposit account, which will be placed its own funds in the amount of 264 thousand dollars.

Own funds in the amount of $4,632,000 were invested in the project from 2023 to the present for the reconstruction of the building, arrangement and installation of technological equipment, repair and finishing works in the administrative part of the building, installation of internal engineering networks.

It is also planned to obtain a revolving credit for the purchase of an initial batch of raw materials for production in the amount of $600 thousand in January 2025. The terms of the revolving credit are shown in the table below.

Table 29. Terms of revolving credit

Terms of the investment loan	The Year	Month
Interest rate on the loan	5%	0,42%
Loan term	3	36
Deferral of principal payments	1	12

Source: information of the project initiator, Global Innovation Trade calculations

6.9. Evaluating the economic efficiency of the project

Methodology for assessing the effectiveness of the project

Evaluation of investment projects is carried out according to the following main indicators:

1. Net present value NPV.
2. Profitability index PI.

3. PBP payback period.
4. Discounted payback period DPBP.
5. Internal rate of return IRR.
6. Return on assets (ROA) ratio.
7. Return on equity ratio (ROE).
8. Return on investment (ROI) ratio.
9. Interest coverage ratio (Interest coverage ratio).
10. Debt Service Coverage Ratio (DSCR).
11. Loan Life Coverage Ratio (LLCR) is the ratio of debt to cash flows available to service the debt during the period until the debt is repaid.
12. Debt/Equity ratio (D/E).
13. Debt/EBITDA.
14. Terminal (final) cost of the project.

Project performance indicators

Performance indicators of an investment project allow you to determine the effectiveness of investment in a particular project. When analyzing the effectiveness of investment projects the following indicators are used:

1. Net discounted (discounted) income (cash flow).
2. Net present value, NPV.
3. Payback period (time), PBP.
4. Discounted payback period, DPBP.
5. Internal rate of return (profitability).
6. Rate of return on investment, IRR (modified rate of return on investment, MIRR).
7. Profitability index, profitability index, profitability index, PI. The main financial

indicators of the project are given in the table below.

Table 30. Indicators of investment efficiency

Investment performance indicators	Value, thousand dollars.
Net income	78 808
Net cash flow NPV	51 934

Internal rate of return IRR (months), %	267%
Profitability index PI, units.	9,1
Payback period PB, years.	1,4
Discounted payback period DPB, years	1,5
Investment in the project	6 432
Average return on sales for the project, %	76,6%
Discount rate, %	10,7%

Source: Global Innovation Trade analysis and calculations

According to the study, it is clear that the project is profitable. It will pay for itself in 1 year and 5 months. Payback period, taking into account discounting will be 1 year and 6 months. The net profit of the project a t the end of the forecast period will be **78 808 thousand dollars.**

Net present value (NPV)

Net discounted income (net present value, commonly abbreviated as NPV) -is the sum of discounted simultaneous differences between benefits and costs of a project. It is the sum of cash flows (receipts and payments) associated with operational and investment activities, reduced (discounted) at the beginning of the investment.

Net discounted income NPV is calculated by the formula:

$$NPV = \sum_{t=o}^{T} \frac{CF_t}{(1+i)^t},$$

where i is the discount rate, CF_t is the net cash flow of period t, T is the duration of the project in periods.

The NPV calculation is a standard method of evaluating the effectiveness of an investment project, which shows an estimate of the effect of an investment reduced to the present time, taking into account the varying time value of money. If NPV is greater than 0, the investment is profitable, and if NPV is less than 0, the investment is unprofitable.

With the help of NPV can also assess the relative effectiveness of alternative investments (with the same initial investment is more profitable project with a larger NPV).

Positive qualities of NPV:

- clear criteria for decision-making;
- consideration of the value of money over time (the formulas use the discount factor).

Negative qualities NPV associated with the fact that this indicator does not take into account:

- risks;

- probability of the event outcome, since all cash flows and the discount factor are predicted values.

Net cash flow NPV, equal to **$51,934 thousand** at the end of the forecast period, shows the amount of cash that the investor will receive from the project after cash inflows recoup its initial costs and periodic cash outflows associated with the project, taking into account the time value of money and project risks**.**

Internal rate of return (IRR)

IRR stands for Internal Rate of Return, which translates as "internal rate of return. This is the name of one of the two main indicators for evaluating investment projects. IRR, or Internal Rate of Return, is the rate of interest at which the present value of all cash flows of an investment project (i.e. NPV) is zero. This means that at this interest rate, the investor will be able to recover his or her initial investment, but no more.

The internal rate of return (IRR) was **267.6%**, which is higher than the discount rate (10.7%). This is an excellent indicator for similar projects.

Return on investment index (PI)

The profitability index (P I) is the discounted value of cash proceeds from the project (NPV) per unit of investment. It shows the relative profitability of the project.

The profitability index PI is calculated by the formula:

$$PI = \frac{NPV}{Investments}$$

For an effective project, the PI must be greater than 1.

The discounted cost and investment return indices exceed 1 if the NPV is positive for that stream.

In this project, a PI of **9.**1 means that at the end of the project period (December 2031) for every dollar invested, the Investor will receive **$9.1** (discounted).

Payback Period (PBP)

Payback period (PBP) is the expected period of time to recover the initial investment from the net cash proceeds. This is the time in which the company's operating income exceeds the cost of the investment.

PBP payback period is calculated using the formula:

PBP = Investments / ACF,

where Investments - initial investments, ACF -Annual Cash Flow (average annual amount of net cash flow).

The projected payback period of the project is **1 year and 5 months**.

Discounted Payback Period (DPBP)

The Discounted Payback Period (DPBP) is the payback period (see above), but with discounting.

The discounted payback period DPBP is calculated by the formula:

$$DPBP = t_{-} - \frac{NPV_t}{NPV_{t+} - NPV_{t-}},$$

where t_- and t+ are the periods when negative and positive NPV were observed. The payback

period with discounting will be **1 year and 6 months**.

Other indicators

The discount rate is the interest rate used to convert future cash flows into a single present value. The discount rate is used to calculate the discounted value of future NPV cash flows.

The methodology and formula for calculating the discount rate are discussed in detail. The

discount rate of this project is **10.7%.**

7. Project risk assessment

7.1. Sensitivity analysis

The table shows the sensitivity of the project to changes in external market conditions.

Table 31: Sensitivity of the project

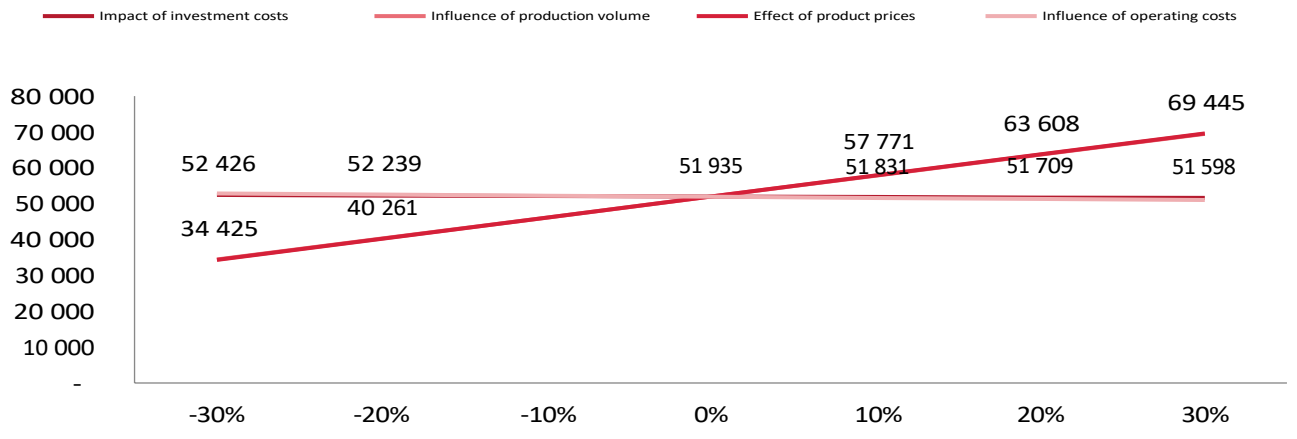
Indicators	-30%	-20%	-10%	0%	10%	20%	30%
Impact of investment costs	52 426	52 239	52 088	51 935	51 831	51 709	51 598
Influence of production volumes	34 425	40 261	46 098	51 935	57 771	63 608	69 445
Effect of product prices	34 305	40 182	46 058	51 935	57 811	63 687	69 564
Influence of operating costs	52 848	52 543	52 239	51 935	51 630	51 326	51 021

Source: Global Innovation Trade analysis and calculations

According to the results of the analysis, we can observe the dependence of the project on the changes in prices for the project products, as well as on the changes in production volumes. The influence of these two factors on the project is almost the same. The project is insignificantly dependent on changes in the value of investment costs.

The sensitivity graph of the project is shown in the diagram below.

Figure 9. Sensitivity graph of the project



Source: Global Innovation Trade analysis and calculations

7.2. Breakeven level

The break-even point determines what the volume of sales should be in order for the company to work break-even, i.e. to cover all its costs without making a profit.

To calculate the breakeven point, you must divide the costs into four components:

1. Variable costs - increase in proportion to the increase in production volume.
2. Fixed costs are independent of the volume of production and whether the volume of operations increases or decreases.
3. Loan payments.
4. Tax payments.

The break-even point calculation is shown in the table below.

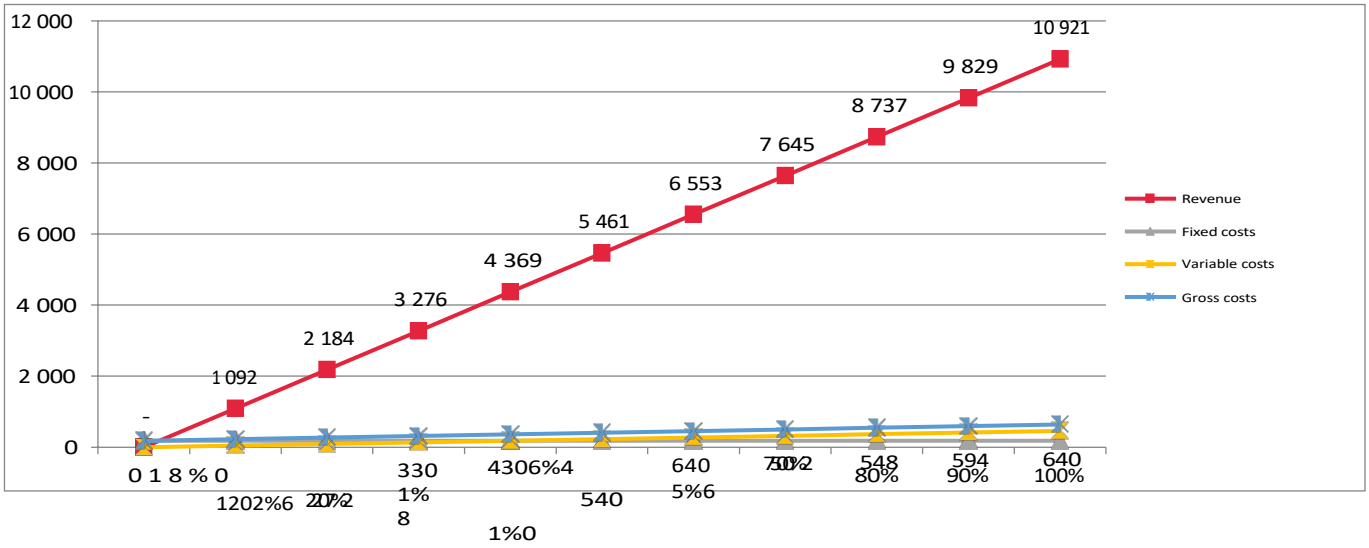
Table 32. Break-even point, thousand dollars.

Indicators	Values
Revenue	10 921
Fixed costs	180
Variable costs	460
Breakeven point	188,2

Source: Global Innovation Trade *analysis and calculations*

The break-even point is shown graphically in the diagram below.

Figure 10. Graph of the break-even point of the project, thousand dollars.



Source: Global Innovation Trade *analysis and calculations*

7.3. Project options (optimistic and pessimistic)

Optimistic version of the project

When considering the optimistic variant of the project, it was conventionally assumed that sales prices and production volume increase by 5%, investment and operating costs decrease by 5%. Indicators of project efficiency under the optimistic variant are given in the table below.

Table 33. Indicators of investment efficiency under the optimistic variant of the project

Investment performance indicators	Value, thousand dollars.
Net income	87 986
Net cash flow NPV	58 171
Internal rate of return IRR (months), %	297,0%
Profitability index PI, units.	10,5
Payback period PB, years.	1,4
Discounted payback period DPB, years	1,4
Investment in the project	6 110
Average return on sales for the project, %	78%
Discount rate, %	10,7%

Source: Global Innovation Trade *analysis and calculations*

As can be seen from the results of calculations of the optimistic variant of the project, such indicators as net profit of the project, net cash flow, internal rate of return, profitability index, average return on sales under the project increase. Payback period and discounted payback period decrease.

Pessimistic version of the project

When considering the pessimistic variant of the project, it was conventionally assumed that sales prices and production volume decrease by 5%, investment and operating costs increase by 5%. Project efficiency indicators for the optimistic variant are given in the table below.

Table 34. Indicators of investment efficiency under the pessimistic variant of the project

Investment performance indicators	Value, thousand dollars.
Net income	70 070
Net cash flow NPV	46 008
Internal rate of return IRR (months), %	239,7%
Profitability index PI, units.	7,8
Payback period PB, years.	1,5
Discounted payback period DPB, years	1,5
Investment in the project	6 753
Average return on sales for the project, %	75,5%
Discount rate, %	10,7%

Source: Global Innovation Trade *analysis and calculations*

As can be seen from the results of calculations of the pessimistic variant of the project, such indicators as net profit of the project, net cash flow, internal rate of return, profitability index, average return on sales on the project are reduced. Payback period and discounted payback period are increasing.

7.4. Project risk assessment

Qualitative risk analysis

Like any enterprise operating in the market, the projected plant will operate under the conditions of uncertainty. The main possible risks, probability of their realization, degree of danger and ways of reduction are shown in the table:

Table 35. Main risks of the project

Risk	Probability and degree of danger. Manifestations of negative impact	Risk leveling tools
Political risks		

Risk	Probability and degree of danger. Manifestations of negative impact	Risk leveling tools
Denial / delay in obtaining permits, subsidies, e t c .	Probability: medium Degree of danger: high Impact: delays in the opening of the plant	Business support from the city authorities/government.
Financial crisis in the country	Probability: medium Degree of danger: medium Impact: reduced demand for manufactured products	Revision of pricing policy
Production and commercial risks		
Failure to meet equipment delivery deadlines	Probability: medium Degree of danger: medium Impact: delaying the process of opening a company	Formation of a contract with clear points of interaction. Selection of suppliers with extensive experience.
Failure to meet construction deadlines	Probability: medium Degree of danger: high Impact: disruption of the entire project	Formation of a contract with clear points of interaction. Selection of subcontractors with extensive experience
Market risks		
Rising prices for raw materials	Probability: low Degree of danger: high. Impact: decrease in company profits	Concluding long-term contracts. Reducing costs.
Aggressive competition from market players	Probability: low Degree of danger: medium. Impact: reduced revenue	Flexible pricing policy

Source: Global Innovation Trade analysis

Technological and scientific risk is completely absent in the project. The project is not based on research work with an unknown result. The project is based on a standard technical solution and highly professional specialists and contractors are involved for repair and reconstruction. Errors in technical certification of buildings, architectural design - these risks remain large enough, but can be significantly minimized. The risk is reduced to about zero at the early stage of the project, before the start of investment of fixed assets, through the full range of necessary design and survey work.

8. Appendixes

8.1. Appendixes. Tables. Graphs. Options for calculations. Documents.

8.1.1. Cash flow statement by month

Cash flow	Cycle 0	2024											
		Jan.24	Feb.24	mar.24	Apr.24	May.24	Jun.24	July 24.	Aug. 24	sen.24	Oct. 24	Nov.24	Dec. 24
INVESTMENT CASH FLOW (IFC)	-3 214	-28	-2	-66	0	0	-917	-883	-265	-265	-265	-265	-265
Buildings and structures	2 791	28	2	66	0	0	0	0	0	0	0	0	0
Equipment	423	0	0	0	0	0	809	780	265	265	265	265	265
Other investments	0	0	0	0	0	0	108	104	0	0	0	0	0
OPERATING CASH FLOW (OPF)	0	0	0	0	0	0	-48	-21	-32	-60	-32	-32	-60
Income total	0	0	0	0	0	0	0	0	0	0	0	0	0
Costs total	0	0	0	0	0	0	48	21	32	60	32	32	60
Variable costs	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed costs	0	0	0	0	0	0	0	0	11	11	11	11	11
Payments of interest on loans	0	0	0	0	0	0	21	21	21	21	21	21	21
Accrued taxes and payments:	0	0	0	0	0	0	27	0	1	28	1	1	28
FINANCIAL CASH FLOW (FDP)	3 214	28	2	66	0	0	2 065	0	265	265	265	265	288
Payment of the body of the debt	0	0	0	0	0	0	0	0	0	0	0	0	0
Own funds	3 214	28	2	66	0	0	265	0	265	265	265	265	288
including own funds for investments	3 214	28	2	66	0	0	0	0	265	265	265	265	265

Organization of production of semi-hard cheeses and Picatto cheese

Cash flow	Cycle 0	2024											
		Jan.24	Feb.24	mar.24	Apr.24	May.24	Jun.24	July 24	Aug. 24	sen.24	Oct. 24	Nov.24	Dec. 24
Own funds for operating expenses	0	0	0	0	0	0	265	0	0	0	0	0	23
Credit funds	0	0	0	0	0	0	1 800	0	0	0	0	0	0
including investment credit	0	0	0	0	0	0	1 800	0	0	0	0	0	0
recurring loan	0	0	0	0	0	0	0	0	0	0	0	0	0
Net cash flow (NFC)	0	0	0	0	0	0	1 100	-904	-32	-60	-32	-32	-36
Cumulative NPD	0	0	0	0	0	0	1 100	195	163	103	71	39	3
Cash balance at the beginning of the period	0	0	0	0	0	0	0	1 100	195	163	103	71	39
Cash balance at the end of the period	0	0	0	0	0	0	1 100	195	163	103	71	39	3
Discounted NPD		0	0	0	0	0	1 054	-860	-30	-56	-30	-30	-33
Discounted NPD on an accrual basis		0	0	0	0	0	1 054	195	164	108	78	49	16

Cash flow	Jan.25	fev.25	mar.25	Apr. 25	May.25	Jun 25	July 25	Aug. 25	sen.25	Oct. 25	Nov. 25	Dec. 25
INVESTMENT CASH FLOW (ICEF)	0	0	0	0	0	0	0	0	0	0	0	0
Buildings and structures	0	0	0	0	0	0	0	0	0	0	0	0
Equipment	0	0	0	0	0	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0	0	0	0	0	0
OPERATING CASH FLOW (OPF)	673	804	779	892	717	736	938	895	827	941	810	-547
Income total	752	884	884	973	796	840	1 017	973	929	1 017	884	973
Costs total	79	80	105	81	79	104	79	78	102	76	75	1 520
Variable costs	37	38	38	39	38	38	39	39	38	39	38	39
Fixed costs	15	15	15	15	15	15	15	15	15	15	15	15
Payments of interest on loans	24	24	24	24	24	23	22	21	20	19	18	17
Accrued taxes and payments:	3	3	28	3	3	28	3	3	28	3	3	1 449
FINANCIAL CASH FLOW (FDP)	600	0	0	0	-75	-75	-75	-75	-75	-75	-75	-75
Payment of the body of the debt	0	0	0	0	75	75	75	75	75	75	75	75
Own funds	0	0	0	0	0	0	0	0	0	0	0	0
Credit funds	600	0	0	0	0	0	0	0	0	0	0	0
recurring loan	600	0	0	0	0	0	0	0	0	0	0	0
Net cash flow (NFC)	1 273	804	779	892	642	661	863	820	752	866	735	-622
Cumulative NPD	1 275	2 080	2 859	3 751	4 393	5 054	5 917	6 737	7 489	8 355	9 089	8 467
Cash balance at the beginning of the period	3	1 275	2 080	2 859	3 751	4 393	5 054	5 917	6 737	7 489	8 355	9 089
Cash balance at the end of the period	1 275	2 080	2 859	3 751	4 393	5 054	5 917	6 737	7 489	8 355	9 089	8 467
Discounted NPD	1 150	721	692	786	560	573	741	698	635	725	610	-512
Discounted NPD on an accrual basis	1 166	1 886	2 579	3 365	3 925	4 498	5 239	5 937	6 572	7 297	7 907	7 395

Cash flow	Jan.26	Feb.26	mar.26	Apr.26	May.26	Jun 26	July 26.	Aug 26	sen.26	Oct. 26	Nov. 26	Dec. 26
INVESTMENT CASH FLOW (ICEF)	0	0	0	0	0	0	0	0	0	0	0	0
Buildings and structures	0	0	0	0	0	0	0	0	0	0	0	0
Equipment	0	0	0	0	0	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0	0	0	0	0	0
OPERATING CASH FLOW (OPF)	922	1 099	1 077	1 218	985	1 022	1 279	1 222	1 142	1 282	1 108	-768
Income total	1 002	1 179	1 179	1 297	1 061	1 120	1 356	1 297	1 238	1 356	1 179	1 297
Costs total	80	80	102	79	76	99	77	75	96	74	71	2 065
Variable costs	45	46	46	47	46	46	48	47	47	48	46	47
Fixed costs	15	15	15	15	15	15	15	15	15	15	15	15
Payments of interest on loans	17	16	15	14	13	12	11	10	9	8	7	6
Accrued taxes and payments:	3	3	26	3	3	26	3	3	26	3	3	1 997
FINANCIAL CASH FLOW (FDP)	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100
Payment of the body of the debt	100	100	100	100	100	100	100	100	100	100	100	100
Own funds	0	0	0	0	0	0	0	0	0	0	0	0
Credit funds	0	0	0	0	0	0	0	0	0	0	0	0
Net cash flow (NFC)	822	999	977	1 118	885	922	1 179	1 122	1 042	1 182	1 008	-868
Cumulative NPD	9 290	10 288	11 266	12 384	13 268	14 190	15 369	16 491	17 533	18 715	19 723	18 855
Cash balance at the beginning of the period	8 467	9 290	10 288	11 266	12 384	13 268	14 190	15 369	16 491	17 533	18 715	19 723
Cash balance at the end of the period	9 290	10 288	11 266	12 384	13 268	14 190	15 369	16 491	17 533	18 715	19 723	18 855
Discounted NPD	671	808	784	890	698	721	915	863	795	894	756	-646
Discounted NPD on an accrual basis	8 066	8 874	9 659	10 548	11 246	11 967	12 883	13 746	14 540	15 435	16 191	15 545

Cash flow	Jan.27	fev.27	mar.27	Apr.27	May.27	Jun.27	July 27.	Aug. 27	sen.27	Oct. 27	Nov.27	Dec. 27
INVESTMENT CASH FLOW (ICEF)	0	0	0	0	0	0	0	0	0	0	0	0
Buildings and structures	0	0	0	0	0	0	0	0	0	0	0	0
Equipment	0	0	0	0	0	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0	0	0	0	0	0
OPERATING CASH FLOW (OPF)	995	1 182	1 163	1 309	1 061	1 103	1 372	1 310	1 227	1 372	1 186	-833
Income total	1 065	1 253	1 253	1 378	1 128	1 190	1 441	1 378	1 315	1 441	1 253	1 378
Costs total	70	71	90	69	67	87	69	68	88	68	67	2 211
Variable costs	47	48	48	49	48	48	50	49	49	50	48	49
Fixed costs	15	15	15	15	15	15	15	15	15	15	15	15
Payments of interest on loans	5	4	3	2	1	1	1	1	0	0	0	0
Accrued taxes and payments:	3	3	24	3	3	24	3	3	24	3	3	2 147
FINANCIAL CASH FLOW (FDP)	-100	-100	-100	-100	-25	-25	-25	-25	-25	-25	-25	-25
Payment of the body of the debt	100	100	100	100	25	25	25	25	25	25	25	25
Own funds	0	0	0	0	0	0	0	0	0	0	0	0
Credit funds	0	0	0	0	0	0	0	0	0	0	0	0
Net cash flow (NFC)	895	1 082	1 063	1 209	1 036	1 078	1 347	1 285	1 202	1 347	1 161	-858
Cumulative NPD	19 749	20 832	21 895	23 103	24 139	25 217	26 564	27 849	29 051	30 399	31 559	30 701
Cash balance at the beginning of the period	18 855	19 749	20 832	21 895	23 103	24 139	25 217	26 564	27 849	29 051	30 399	31 559
Cash balance at the end of the period	19 749	20 832	21 895	23 103	24 139	25 217	26 564	27 849	29 051	30 399	31 559	30 701
Discounted NPD	660	791	771	869	738	762	944	893	829	921	787	-577
Discounted NPD on an accrual basis	16 205	16 996	17 767	18 636	19 374	20 136	21 080	21 974	22 802	23 723	24 510	23 933

Cash flow	Jan.28	Feb.28	mar.28	Apr.28	May.28	Jun.28	July 28.	Aug.28	sen.28	Oct. 28	Nov.28	Dec. 28
INVESTMENT CASH FLOW (ICEF)	0	0	0	0	0	0	0	0	0	0	0	0
Buildings and structures	0	0	0	0	0	0	0	0	0	0	0	0
Equipment	0	0	0	0	0	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0	0	0	0	0	0
OPERATING CASH FLOW (OPF)	999	1 186	1 168	1 310	1 062	1 106	1 373	1 310	1 230	1 373	1 186	-835
Income total	1 065	1 253	1 253	1 378	1 128	1 190	1 441	1 378	1 315	1 441	1 253	1 378
Costs total	65	67	85	68	66	84	68	68	85	68	67	2 213
Variable costs	47	48	48	49	48	48	50	49	49	50	48	49
Fixed costs	15	15	15	15	15	15	15	15	15	15	15	15
Payments of interest on loans	0	0	0	0	0	0	0	0	0	0	0	0
Accrued taxes and payments:	3	3	21	3	3	21	3	3	21	3	3	2 148
FINANCIAL CASH FLOW (FDP)	0	0	0	0	0	0	0	0	0	0	0	0
Payment of the body of the debt	0	0	0	0	0	0	0	0	0	0	0	0
Own funds	0	0	0	0	0	0	0	0	0	0	0	0
Credit funds	0	0	0	0	0	0	0	0	0	0	0	0
Net cash flow (NFC)	999	1 186	1 168	1 310	1 062	1 106	1 373	1 310	1 230	1 373	1 186	-835
Cumulative NPD	31 701	32 887	34 055	35 365	36 427	37 533	38 905	40 216	41 446	42 819	44 005	43 170
Cash balance at the beginning of the period	30 701	31 701	32 887	34 055	35 365	36 427	37 533	38 905	40 216	41 446	42 819	44 005
Cash balance at the end of the period	31 701	32 887	34 055	35 365	36 427	37 533	38 905	40 216	41 446	42 819	44 005	43 170
Discounted NPD	666	784	765	851	684	706	869	823	766	848	726	-507
Discounted NPD on an accrual basis	24 599	25 383	26 148	26 999	27 683	28 389	29 259	30 082	30 848	31 695	32 422	31 915

Organization of production of semi-hard cheeses and Picatto cheese

Cash flow	Jan.29	fev.29	mar.29	Apr.29	May.29	June 29	July 29.	Aug. 29	sen.29	Oct. 29	Nov. 29	Dec. 29
INVESTMENT CASH FLOW (ICEF)	0	0	0	0	0	0	0	0	0	0	0	0
Buildings and structures	0	0	0	0	0	0	0	0	0	0	0	0
Equipment	0	0	0	0	0	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0	0	0	0	0	0
OPERATING CASH FLOW (OPF)	999	1 186	1 170	1 310	1 062	1 108	1 373	1 310	1 232	1 373	1 186	-834
Income total	1 065	1 253	1 253	1 378	1 128	1 190	1 441	1 378	1 315	1 441	1 253	1 378
Costs total	65	67	83	68	66	82	68	68	83	68	67	2 212
Variable costs	47	48	48	49	48	48	50	49	49	50	48	49
Fixed costs	15	15	15	15	15	15	15	15	15	15	15	15
Payments of interest on loans	0	0	0	0	0	0	0	0	0	0	0	0
Accrued taxes and payments:	3	3	19	3	3	19	3	3	19	3	3	2 147
FINANCIAL CASH FLOW (FDP)	0	0	0	0	0	0	0	0	0	0	0	0
Payment of the body of the debt	0	0	0	0	0	0	0	0	0	0	0	0
Own funds	0	0	0	0	0	0	0	0	0	0	0	0
Credit funds	0	0	0	0	0	0	0	0	0	0	0	0
Net cash flow (NFC)	999	1 186	1 170	1 310	1 062	1 108	1 373	1 310	1 232	1 373	1 186	-834
Cumulative NPD	44 169	45 355	46 526	47 836	48 898	50 006	51 378	52 689	53 921	55 294	56 480	55 646
Cash balance at the beginning of the period	43 170	44 169	45 355	46 526	47 836	48 898	50 006	51 378	52 689	53 921	55 294	56 480
Cash balance at the end of the period	44 169	45 355	46 526	47 836	48 898	50 006	51 378	52 689	53 921	55 294	56 480	55 646
Discounted NPD	602	708	693	769	618	639	785	744	693	766	656	-457
Discounted NPD on an accrual basis	32 516	33 224	33 917	34 686	35 304	35 944	36 729	37 473	38 166	38 932	39 588	39 131

Cash flow	Jan.30	fev.30	mar.30	Apr.30	May.30	Jun 30	July 30	Aug 30	sen.30	Oct. 30	Nov. 30	Dec. 30
INVESTMENT CASH FLOW (ICEF)	0	0	0	0	0	0	0	0	0	0	0	0
Buildings and structures	0	0	0	0	0	0	0	0	0	0	0	0
Equipment	0	0	0	0	0	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0	0	0	0	0	0
OPERATING CASH FLOW (OPF)	999	1 186	1 173	1 310	1 062	1 110	1 373	1 310	1 235	1 373	1 186	-833
Income total	1 065	1 253	1 253	1 378	1 128	1 190	1 441	1 378	1 315	1 441	1 253	1 378
Costs total	65	67	80	68	66	80	68	68	81	68	67	2 211
Variable costs	47	48	48	49	48	48	50	49	49	50	48	49
Fixed costs	15	15	15	15	15	15	15	15	15	15	15	15
Payments of interest on loans	0	0	0	0	0	0	0	0	0	0	0	0
Accrued taxes and payments:	3	3	17	3	3	17	3	3	17	3	3	2 146
FINANCIAL CASH FLOW (FDP)	0	0	0	0	0	0	0	0	0	0	0	0
Payment of the body of the debt	0	0	0	0	0	0	0	0	0	0	0	0
Own funds	0	0	0	0	0	0	0	0	0	0	0	0
Credit funds	0	0	0	0	0	0	0	0	0	0	0	0
Net cash flow (NFC)	999	1 186	1 173	1 310	1 062	1 110	1 373	1 310	1 235	1 373	1 186	-833
Cumulative NPD	56 646	57 832	59 004	60 315	61 376	62 487	63 860	65 170	66 405	67 777	68 963	68 131
Cash balance at the beginning of the period	55 646	56 646	57 832	59 004	60 315	61 376	62 487	63 860	65 170	66 405	67 777	68 963
Cash balance at the end of the period	56 646	57 832	59 004	60 315	61 376	62 487	63 860	65 170	66 405	67 777	68 963	68 131
Discounted NPD	544	640	627	695	558	579	710	672	628	692	593	-413
Discounted NPD on an accrual basis	39 674	40 314	40 941	41 636	42 194	42 773	43 482	44 154	44 782	45 474	46 066	45 654

Cash flow	Jan.31	Feb.31	mar.31	Apr.31	May.31	Jun.31	July 31	Aug. 31	sen.31	Oct.31	Nov.31	Dec. 31
INVESTMENT CASH FLOW (ICEF)	0	0	0	0	0	0	0	0	0	0	0	0
Buildings and structures	0	0	0	0	0	0	0	0	0	0	0	0
Equipment	0	0	0	0	0	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0	0	0	0	0	0
OPERATING CASH FLOW (OPF)	999	1 186	1 175	1 310	1 062	1 113	1 373	1 310	1 237	1 373	1 186	-832
Income total	1 065	1 253	1 253	1 378	1 128	1 190	1 441	1 378	1 315	1 441	1 253	1 378
Costs total	65	67	78	68	66	78	68	68	78	68	67	2 210
Variable costs	47	48	48	49	48	48	50	49	49	50	48	49
Fixed costs	15	15	15	15	15	15	15	15	15	15	15	15
Payments of interest on loans	0	0	0	0	0	0	0	0	0	0	0	0
Accrued taxes and payments:	3	3	14	3	3	14	3	3	14	3	3	2 146
FINANCIAL CASH FLOW (FDP)	0	0	0	0	0	0	0	0	0	0	0	0
Payment of the body of the debt	0	0	0	0	0	0	0	0	0	0	0	0
Own funds	0	0	0	0	0	0	0	0	0	0	0	0
Credit funds	0	0	0	0	0	0	0	0	0	0	0	0
Net cash flow (NFC)	999	1 186	1 175	1 310	1 062	1 113	1 373	1 310	1 237	1 373	1 186	-832
Cumulative NPD	69 130	70 316	71 491	72 801	73 863	74 976	76 348	77 659	78 896	80 269	81 455	80 623
Cash balance at the beginning of the period	68 131	69 130	70 316	71 491	72 801	73 863	74 976	76 348	77 659	78 896	80 269	81 455
Cash balance at the end of the period	69 130	70 316	71 491	72 801	73 863	74 976	76 348	77 659	78 896	80 269	81 455	80 623
Discounted NPD	491	578	568	628	504	524	641	607	568	625	536	-372
Discounted NPD on an accrual basis	46 145	46 723	47 290	47 918	48 422	48 947	49 588	50 195	50 763	51 388	51 923	51 551

ABOUT THE PROJECT EXECUTOR

Business plan "Opening of clinker production" was made by the research agency "**Global Innovation Trade**". All our specialists have an impressive experience in the development of business plans, backed by deep knowledge in various areas of economics and business, the presence of a strong information base, knowledge of the most advanced approaches to business organization, knowledge of the latest methods of calculation and their competent adaptation to the specifics of the region or a particular industry.

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