



Ministry of Investment,  
industry and trade  
of the Republic of Uzbekistan

# **Investment proposal: Production of dairy products**



# Production of dairy products

## Economic impact:

- Job creation: 500+ new jobs (farm technicians, processing staff, logistics).
- Local GDP growth: \$44,4M annual revenue injects capital into rural economy.
- Import substitution: Reduces reliance on imported dairy products (saves ~\$15M/year in Uzbekistan).
- Export potential: Premium cheese/butter could generate \$5–10M annually from CIS/China markets.

## Social impact:

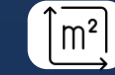
- Nutrition security: Provides 50M liters/year of affordable milk to local schools/hospitals.
- Skills development: Vocational training center for dairy processing (200 graduates/year).



## Economic indicators:



**Financing:** 50,7 mln USD



**Area:** 8 hectares



**Revenue:** \$213,1 million/year



**ROI:** 98%



**NPV:** ~ \$329,9 million



**IRR:** ~88,7%

## Project description:

1. 10,000 Holstein cows producing 70 million liters of milk annually
2. Integrated processing plant producing pasteurized milk, yogurt, cheese, butter, and other dairy products
3. Automated milking and feeding systems for efficiency
4. Premium dairy products meeting international food safety standards and reduced reliance on imports by increasing local supply.

## Production indicators:



**Annual production:**  
175,8 thsd tons



**Liquid milk:**  
133,6 thsd tons



**Yogurt:**  
26,4 thsd tons



**Cheese:**  
6,6 thsd tons



**Cottage cheese:**  
3,9 thsd tons



**Butter:**  
2,3 thsd tons

## Location of the project



Tashkent region	
Size	15 250 km <sup>2</sup>
Population	3,1 million



# Processing chain & product yield

## Key production stages

### 1. Filtration & standardization

Process: Remove impurities, adjust fat content (to 3.5%)  
Loss: 0.5% (5 kg/ton)

### 2. Pasteurization

Temperature: 72°C (15 sec)  
Loss: 0.3% (3 kg/ton)

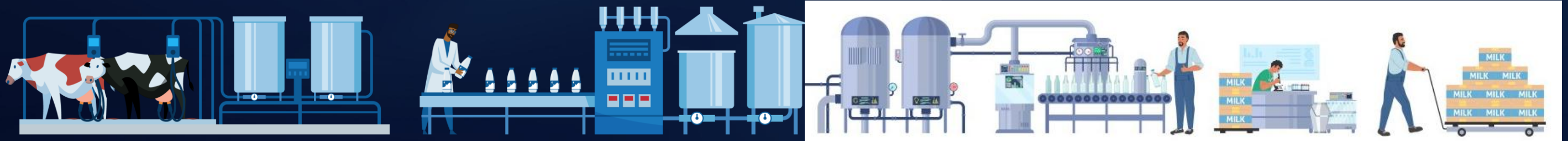
### 3. Separation

Outputs:  
Cream (30-40% fat): ~35 kg  
Skimmed milk: ~965 kg

## Product yield breakdown

(from 1 ton raw milk)

Product	Yield	Composition	Next Process
<b>Cheese</b>	100-120 kg	45% water, 25% fat	Salting, pressing
<b>Butter</b>	35-40 kg	82% fat	Cream churning
<b>Yogurt</b>	950-970 kg	3.5% fat, cultures	Fermentation (6-8 hrs)
<b>Cottage cheese</b>	80-90 kg	18% fat	Acidification, straining
<b>Sour cream</b>	170-200 kg	4% fat	Culturing
<b>Milk powder</b>	100-110 kg	96% solids	Spray drying

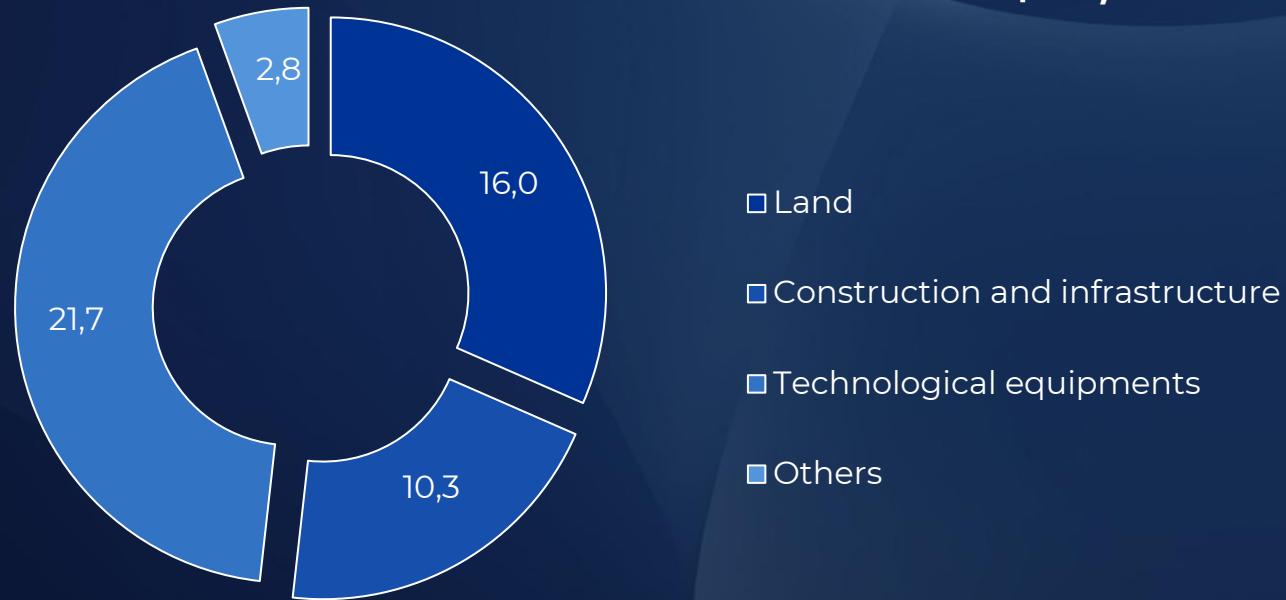




# Project expenses

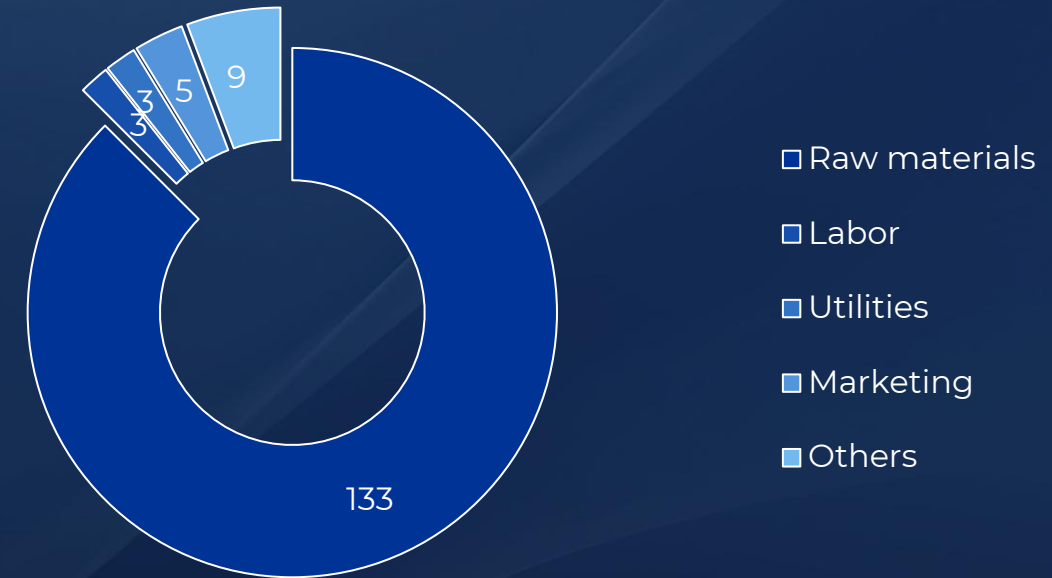
## Initial Investment (CAPEX) (mln dollar)

Total CAPEX: **\$50,7 mln**



## Operating Costs (OPEX) (mln dollar)

Total OPEX: **\$151,9 mln**



This financial overview outlines a comprehensive cost structure and strong profitability of the proposed dairy products production project. The breakdown includes both initial capital investment (CAPEX) and annual operating costs (OPEX), alongside projected revenue and profit estimates.

Revenue stream	Volume	Average price	Annual revenue (million USD)
Liquid milk	133,6 thsd tons	\$800/ton	\$106,9
Yogurt	29,4 thsd tons	\$1,670/ton	\$49,1
Cheese	6,6 thsd tons	\$4,758/ton	\$31,4
Cottage cheese	3,9 thsd tons	\$3,400/ton	\$13,2
Butter	2,3 thsd tons	\$5,500/ton	\$12,4
<b>TOTAL</b>	<b>7 800</b>		<b>\$213,1</b>

### Annual EBITDA:

$$= \$213,1 \text{ mln} - \$151,9 \text{ mln} = \mathbf{\$61,2 \text{ mln}}$$

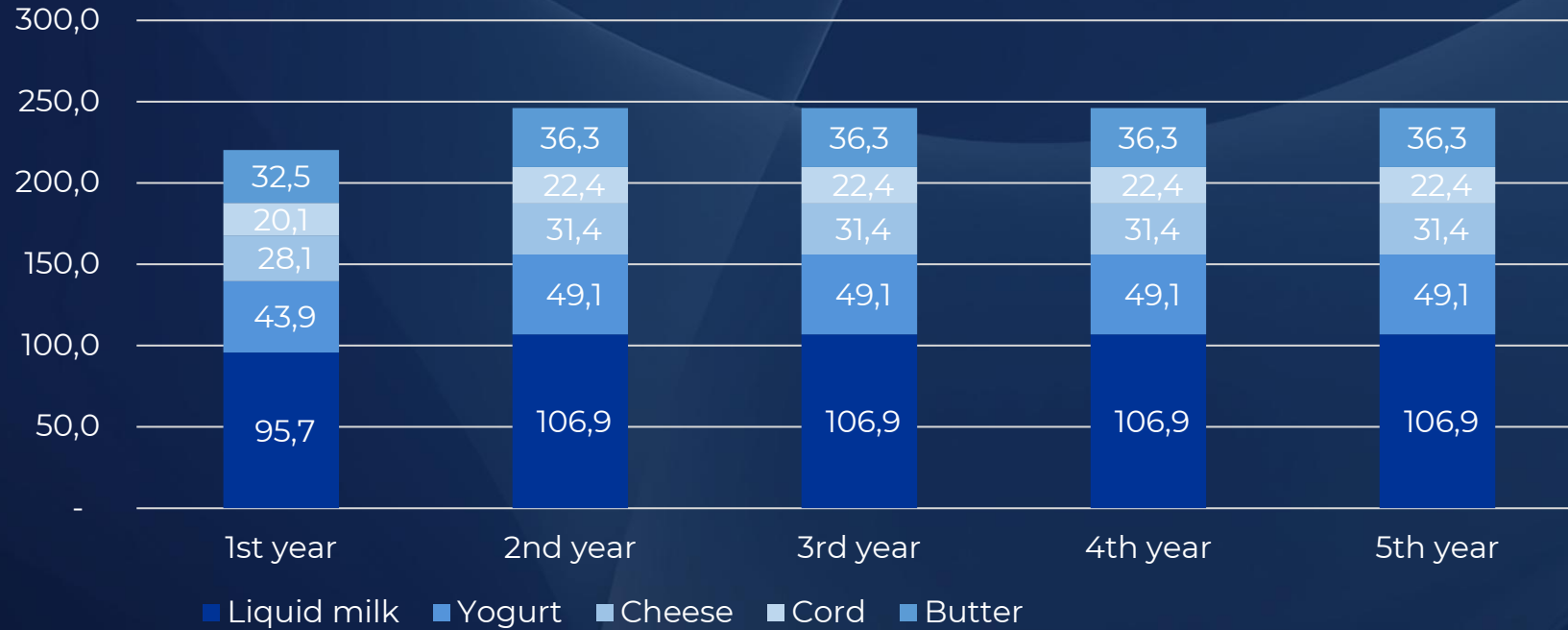
The project demonstrates high profitability, strong market demand, and a diversified product base, positioning it as a highly attractive investment opportunity.



# Financial indicators

(5-year projection)

## Revenues (mln dollars)



## Operating expenses (mln dollars)



### Breakeven:

Break-even point at full capacity 14,3%.

### Total 10-year revenue:

\$676M after full CAPEX recovery in 2 years.

### Cash Flow:

\$497M by year 10

### Return on investment (ROI): 98

(10 years)

=  $(CF/10/CAPEX)*100 = 497/10/50,7*100 = 98$

### NPV (5% discount rate):

= **\$329,9 million** (highly favorable!)

IRR (Internal rate of return): **≈ 88,7%**

### Payback period (PP):

= **15,2 months**

**Profitability index (PI): 7,29**