



Investment proposal: Production of polystyrene and polyurethane foam



Production of polystyrene and polyurethane foam

Economic impact:

- Import substitution of USD 150m worth of insulation and packaging products annually.
- Export potential up to USD 235m/year.
- 350 new jobs created.
- Strong supply chain impact on local logistics, construction, and furniture industries.

Social impact:

- Affordable, energy-saving materials reduce heating/cooling costs for households.
- Technology transfer and local workforce training in advanced polymer chemistry.
- Job creation with skill development programs.



Economic indicators:



Financing: 70 mln USD



Area: 5 hectares



Revenue: \$134,7 million/year



ROI: 45% years



NPV: ~ \$61 million



IRR: ~25%

Project description:

1. Establishment of a modern facility for the production of EPS and PUF to meet the fast-growing demand in construction, packaging, insulation, and furniture industries.
2. The project will reduce dependence on imports and create a sustainable supply of high-quality insulation materials in Uzbekistan.
3. It targets both the domestic construction market and export markets across Central Asia, CIS, and Middle East.
4. Advanced energy-efficient and environmentally safe production technology ensures international competitiveness.

Production indicators:



Annual production: 110 000tons



EPS: 60 000 tons



PUF: 40 000 tons



Panels & specialty products: 10 000 tons

Location of the project





Processing chain & product yield

Key production stages

- 1. Raw material handling & storage** – styrene monomer, isocyanates, polyols and blowing agents stored in specialized tanks with safety systems.
- 2. Polymerization & foaming** – styrene expanded into EPS beads, while polyurethane produced by mixing polyols and isocyanates with catalysts and blowing agents.
- 3. Molding, cutting & shaping** – EPS blocks and PUF slabs molded, cut, or processed into boards, insulation sheets, panels.
- 4. Curing & finishing** – foam cured, stabilized, and treated for strength, insulation, and fire resistance.
- 5. Packaging & quality control** – finished products tested for density, thermal conductivity, compression strength, and packaged for delivery.

Product yield breakdown

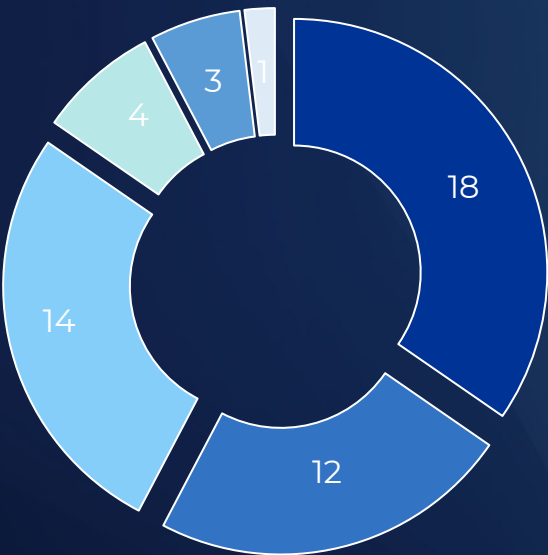
	Product	Estimated firing yield	Annual Volume (tons)
1	Expanded polystyrene (EPS)	55%	60 000
2	Polyurethane foam (PUF)	37%	40 000
3	Panels & specialty products	8%	10 000





Project expenses

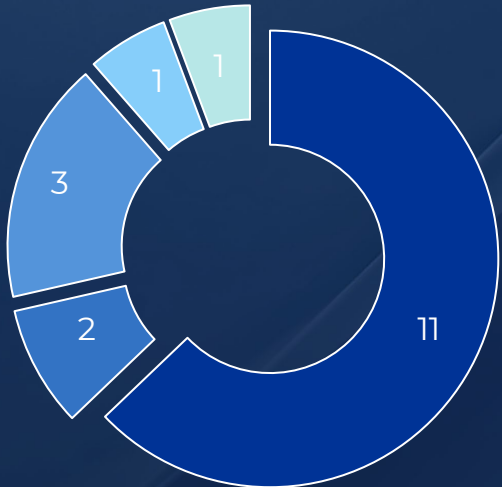
Initial Investment (CAPEX) (mln dollar)



Total CAPEX: **\$52 mln**

- Plant construction & infrastructure
- EPS production line
- PUF production line
- Panel/board processing unit
- Utilities, waste management & storage
- Automation & IT systems

Operating Costs (OPEX) (mln dollar)



Total OPEX: **\$18 mln**

- Raw materials
- Energy & utilities
- Labor
- Packaging & logistics
- Marketing & sales

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

Product	Volume	Price	Revenue (\$)
Expanded Polystyrene (EPS)	60 000 tons	\$1 500/t	90 000 000
Polyurethane Foam (PUF)	40 000 tons	\$2 200/ton	88 000 000
Specialty products (boards, sandwich panels)	10 000 tons	\$2 800/ton	28 000 000
TOTAL			206 000 000

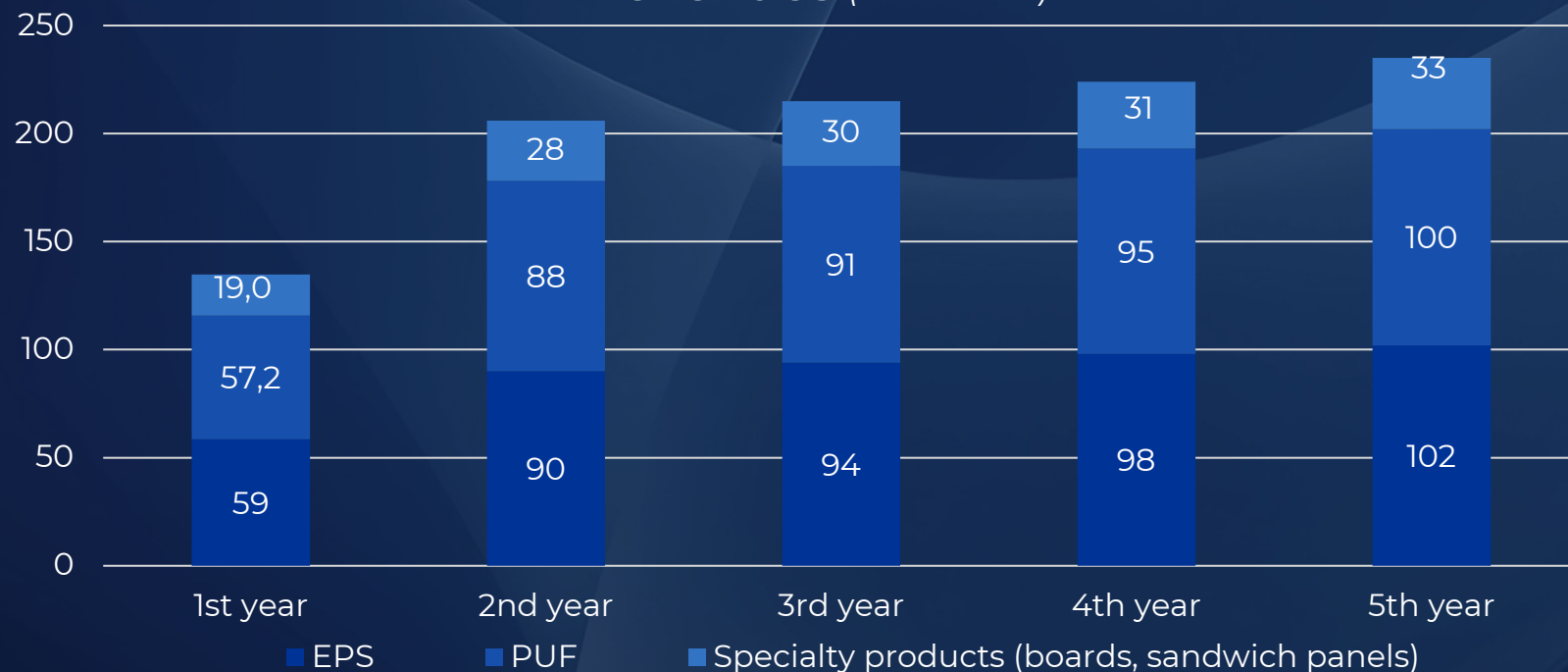
Annual EBITDA:
= \$206mln - \$18mln – 6mln = **\$182 mln**

The project's strong profitability forecast is underpinned by efficient operations and high market demand, positioning it as a highly attractive investment.

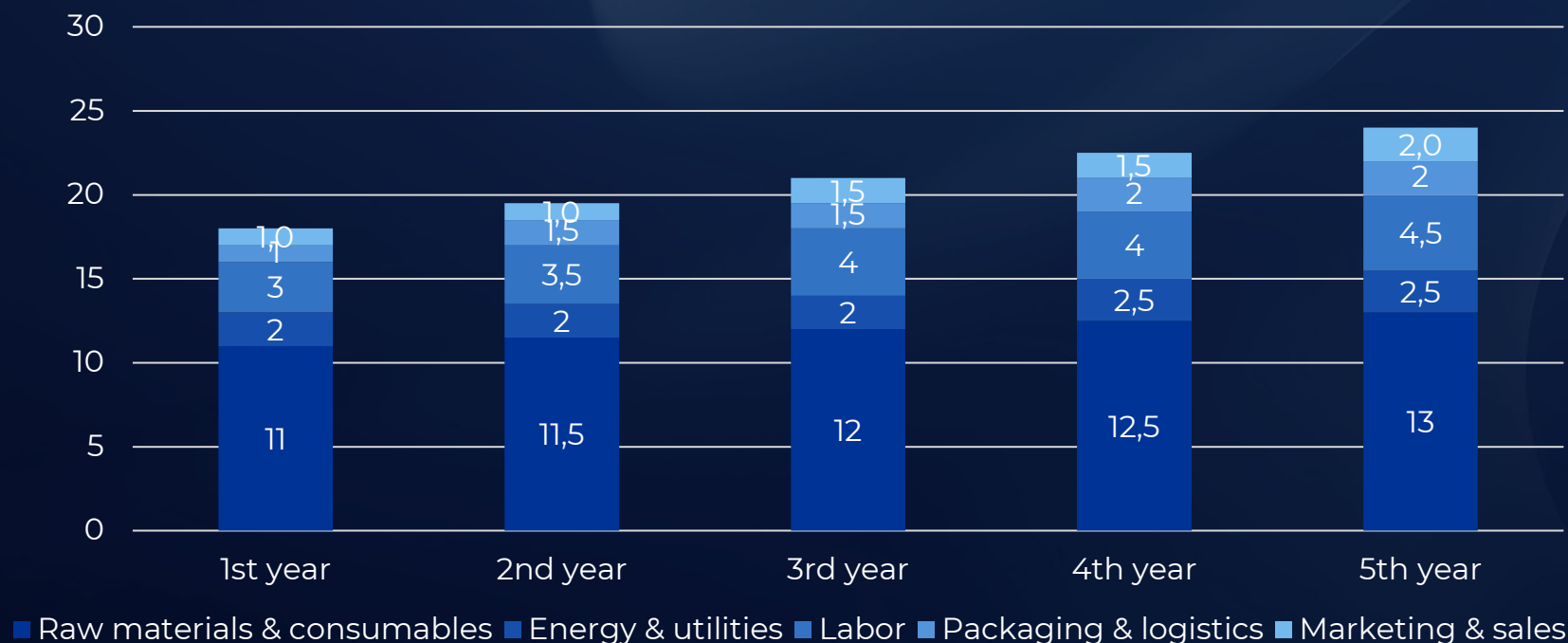


Financial indicators (5-year projection)

Revenues (mln dollars)



Operating expenses (mln dollars)



Revenues increase steadily from \$134,7M in year 1 to \$235M in year 5. Growth is driven by all products.

Total **expenses** rise moderately from \$18M to \$24M, with raw materials being the largest cost component. The controlled growth in costs reflects operational efficiency and economies of scale.

Net profit grows from approximately \$18M to over \$29M over 5 years. Despite rising taxes and expenses, profitability improves due to stronger revenue and efficient cost management.

NPV (15% discount rate):

NPV = 61 (Highly favorable!)

IRR (Internal rate of return): **≈ 25%**

Payback period (PP):

=Payback = **4,2 years**

Profitability index (PI):

PI = **1,87**