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

Investment proposal:
Production of agricultural chemicals

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Production of agricultural chemicals

Economic impact:

- Job creation: 600+ new jobs (engineers, technicians, logistics, marketing).
- Local GDP growth: $70M annual revenue injects capital into rural economy.
- Import substitution: Reduces dependency on imported agrochemicals (saves ~$30M/year).
- Export potential: Potential to export $20–25M/year worth of agrochemical and polymer products to Central Asia and CIS.

Social impact:

- Agricultural support: Ensures stable supply of high-quality fertilizers and pesticides for over 2 million hectares.
- Skills development: Chemical industry training center (300 specialists/year).

Location of the project

Navoi region	
Size	110 800 km²
Population	1,1 million

Project description:

1. Agrochemicals production line: Including fertilizers, pesticides, and seed treatments (50% of plant capacity).
2. Advanced polymer line: Produces Kevlar, Nomex, Tyvek-type materials (35%).
3. Water treatment chemicals: Focused on membrane chemicals, flocculants, and disinfectants (15%).
4. Smart factory systems: Fully automated chemical mixing and packaging systems for safety and precision.

Economic indicators:

- **Financing:** 130 mln USD
- **Area:** 15 hectares
- **Revenue:** $107 million/year
- **ROI:** 34,6%
- **NPV:** ~ $53 million
- **IRR:** ~38,5%

Production indicators:

- **Agricultural chemicals:** 100,000 tons/year
- **Polymers:** 45,000 tons/year
- **Water treatment chemicals:** 20,000 tons/year
- **Technology**: Smart DCS & SCADA-integrated plant
- **Export share:** 35% of production

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Agricultural chemicals & product yield

Key production stages

1. Raw material preparation & mixing
Process: dry or liquid chemicals are measured, dosed, and mixed based on formulation
Loss: ~0,5% (5 kg/ton)
Equipment: mixers, dosing scales.

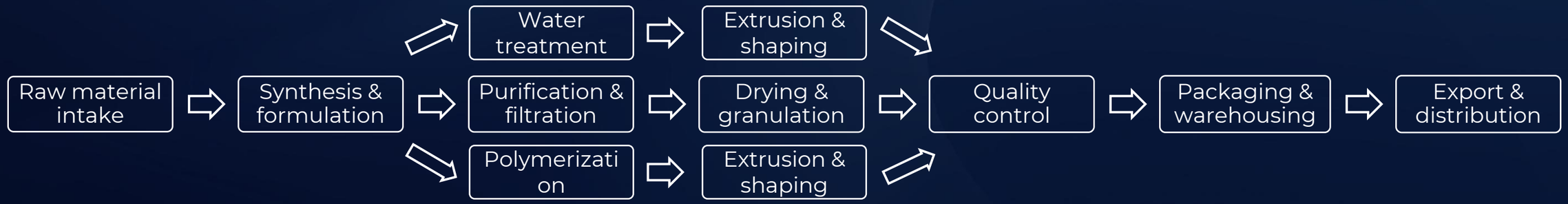
2. Chemical reaction / blending
Temperature: ambient or heated (up to 80°C)
Loss: ~0,3% (3 kg/ton)
Equipment: reactors, agitators

3. Formulation & packaging. Outputs:
- granular fertilizers
- liquid pesticides
- emulsions, suspensions
- powdered treatments:
  loss: ~0,7% (7 kg/ton)
  equipment: granulators, sprayers, baggers

Product yield breakdown

(from 1 ton input chemicals)

	Product	Yield	Composition	Next process
1	**NPK fertilizer**	950–970 kg	balanced nutrients (N-P-K)	drying, granulating
2	**Urea**	950–960 kg	46% nitrogen	prilling, bagging
3	**Herbicides (liquid)**	940–960 kg	active + surfactants	dilution, bottling
4	**Insecticides**	930–960 kg	emulsified concentrate	stabilization, labeling
5	**Fungicides**	920–950 kg	protective & curative agents	suspension, filling
6	**Water treatment chemicals**	950–980 kg	coagulants, disinfectants	quality control, dispatch



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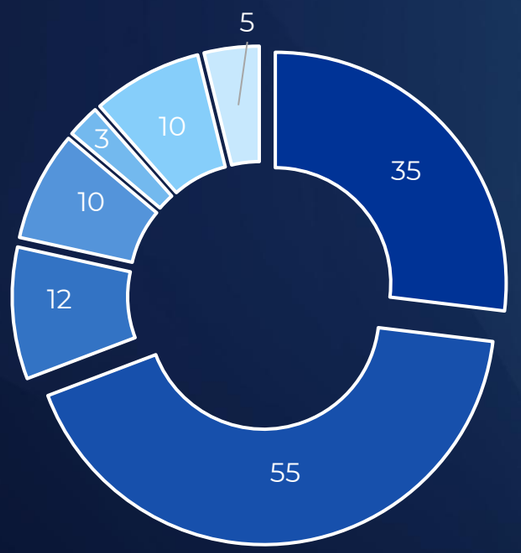
Project expenses

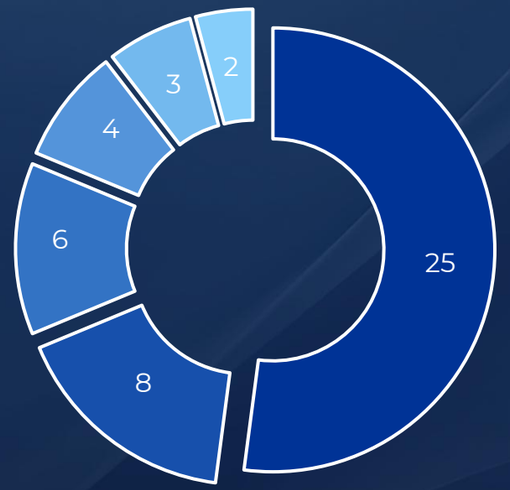
Initial Investment (CAPEX) *(mln dollar)*



Total CAPEX: **$130 mln**

- Plant construction & civil works
- Machinery & equipment
- Utilities & infrastructure
- Engineering, procurement & commissioning (EPC)
- Contingency & reserve fund
- Other expenses (legal, consulting, insurance)

Operating Costs (OPEX) *(mln dollar)*



Total OPEX: **$38 mln**

- Raw materials
- Energy & utilities
- Labor
- Packaging & logistics
- Maintenance & safety
- Auxiliary materials / tech services

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

Product	Volume	Price	Revenue ($)
Pesticides & fertilizers	50 000 tons	$1 000/ton	$50 000 000
Polymer materials	15 000 tons	$3 000/ton	$45 000 000
Water treatment components	5 000 units	$2 000/unit	$10 000 000
By-products / additional Income	-	-	$2 000 000
TOTAL			**$107 000 000**

Annual EBITDA:
= $107 mln - $38 mln - $5 mln
= **$64mln**

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

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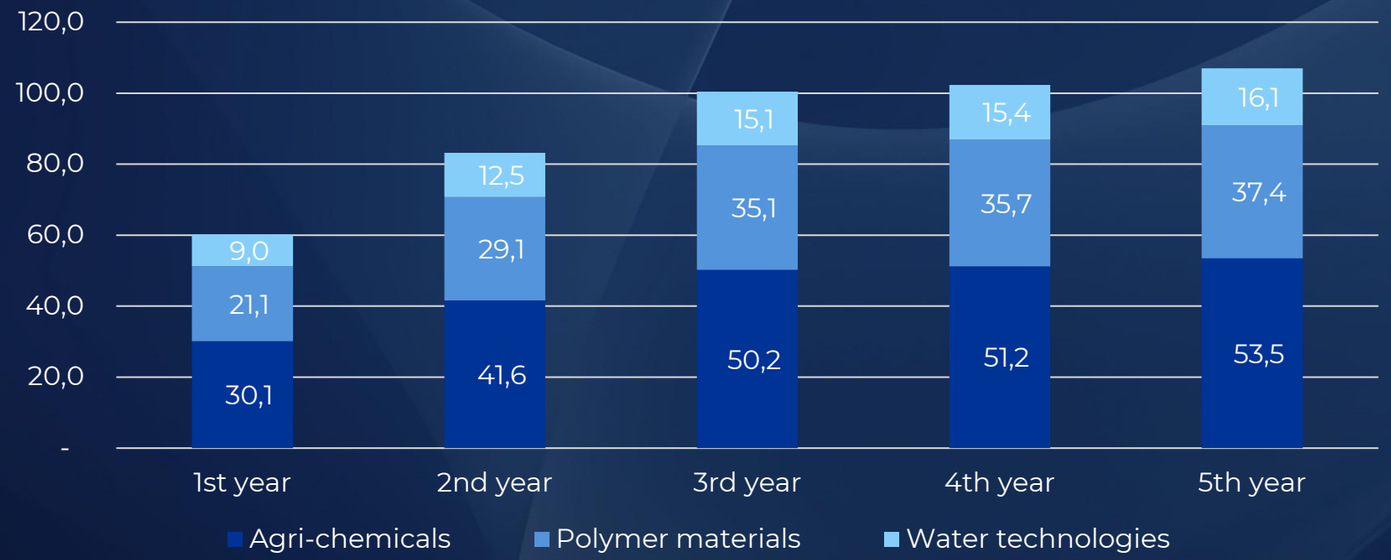
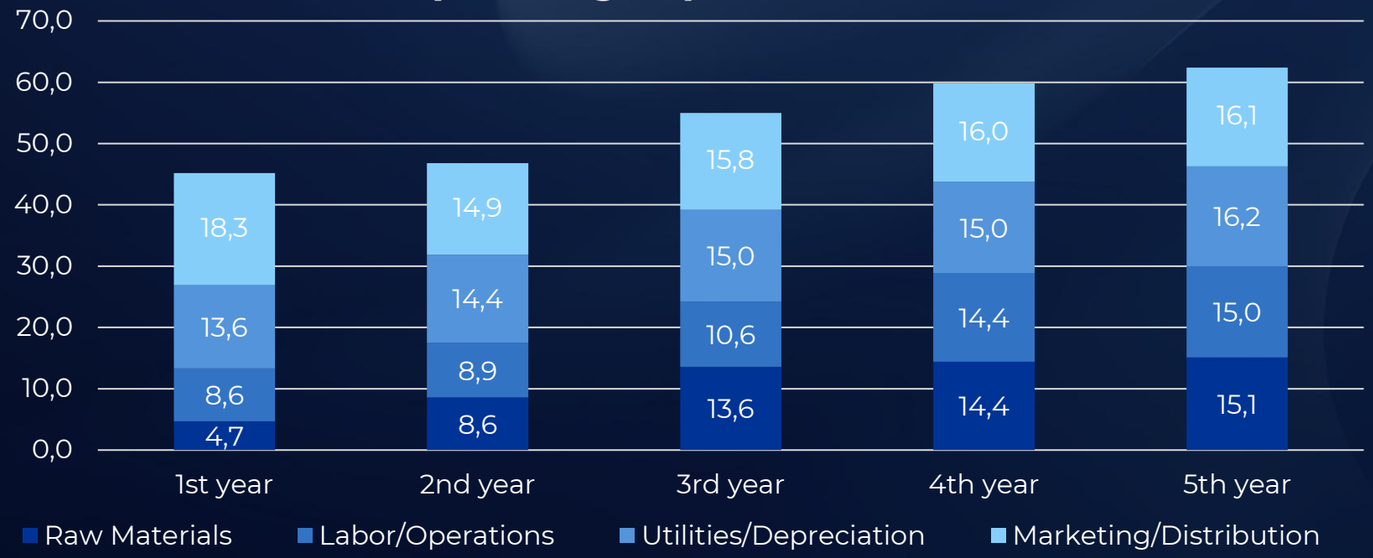
Financial indicators

(5-year projection)

Revenues *(mln dollars)*



Operating expenses *(mln dollars)*



Breakeven: achieved in year 2,1.

Total 5-year cash flow:
$248M after full CAPEX recovery

EBITDA growth:
5% CAGR, reaching $107 mln by year 5.

NPV (10% discount rate):
NPV= $146,7M - $61,7M
= **$53 million** *(highly favorable!)*

IRR (Internal rate of return): ≈ **38,5%**

Payback period (PP):
= **2,8 years**

Profitability index (PI):
=(NPV+CAPEX)/CAPEX=
($53 mln+$130 mln)/$130 mln= **1,4**