Paint and Varnish

DISCLAIMER

Our findings, observations and/or recommendations are those that we could reasonably derive from the procedures or scope of services performed. The specific procedures performed were agreed with Georgian National Investment Agency (the Client) and were performed by us as set forth in the Report.

Our work was carried out solely based on the publicly available research data.

We have indicated within our Report the sources of the information presented and have satisfied ourselves, so far as possible, that the information presented in our Report is consistent with other information which was made available to us in the course of our work in accordance with the terms of the Contract. We have not, however, sought to establish the reliability of the sources by reference to other evidence.

All recommendations, provided to you with/in this Report that refer to the future have some limitations in the sense that they are based on the assumptions valid on the issuance date. These assumptions could change with time, after the date of this Report issuance, and so could lose their value.

References to 'KPMG Analysis' in this Report indicate only that we have (where specified) undertaken certain analytical activities on the underlying data to arrive at the information presented; we do not accept responsibility for the underlying data.

Optimal plant capacity and estimated investment

In order to understand the optimal/maximum industry capacity of production of paints and varnishes in Georgia, we analyzed the potential consumption of the Georgian production by the countries of the region (EU, Ukraine, Turkey, Southern Caucasus and Central Asia) and Russia, assuming that the significant part of the products will be exported to these countries. The consumption has been analyzed based on the supply/demand data. We calculated the gap between import and export in these countries, as well as considered the production, potential capacity increase (pipeline) and consumption data to understand the potential volume of the Paints and varnishes that might be exported to these countries. In addition, we analyzed the main countries from which Paints and varnishes are imported, and considering several factors, identified the countries which can potentially be replaced by Georgian imports (partially). The factors include:

- distance, i.e. transportation costs,
- economic and political factors
- ease of access to these countries by Georgia

Based on the analysis of the above factors for each country in the region and Russia, as well as considering the overall share of the importing countries, which might be potentially replaced, we calculated approximate maximum share of the potential import of the Paints and varnishes by Georgia to these countries.

The results are as follows:

Country	Import/export gap (USD m)	Existence of production facilities	Main exporter country/region	Total export in tons (2014 data)	Potential replacement	Share of import of the potential replacement countries in total import	Total imported tons by the potential replacement countries (2014 data)	Potential share of import from Georgia	Potential volume (tons)
Russia	969	yes	Germany, Sweden, Poland, UK, Belarus	253,062	Germany, Sweden, Poland, UK	44%	111,261	3.0%	3,338
Turkey	114	yes	Germany, Italy, Spain, France, UK	86,544	Germany, Italy, Spain, UK	63%	54,642	5.0%	2,732
Ukraine	151	yes	Germany, Poland, Russia, Italy, US	57,369	Germany, Russia, UK, Italy	44%	25,259	5.0%	1,263
Armenia	12	yes	Turkey, UAE, US, Russia, Germany, Italy	6,648	Turkey, UAE, US	66%	4,397	10.0%	440
Azerbaijan	11	yes	Turkey, US, Netherlands, Slovenia	4,296	Turkey, Poland, US, UAE	73%	3,150	10.0%	315
Central Asia	366	yes	Russia, Ukraine, Turkey, Italy, Slovenia, Iran	97,256	Russia, Ukraine, Turkey, Italy	52%	50,300	2.0%	1,006
EU	(3,867)	yes				n/a			
TOTAL									**9,094**

The analysis shows, that there is a gap between the import and export in the countries of the region, except for EU, and in Russia. As the gap in the EU is negative, which shows that the export exceeds import, as well as considering that the biggest producers of Paints and Varnishes are based in the EU countries, we considered that the possibility to access these markets is low, therefore didn't consider EU as a potential consumer of the Georgian production.

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Optimal plant capacity and estimated investment

The calculated optimal capacity of the production of Paint and Varnish preparations in Georgia is around 15,000 tons per year

The estimated investment is USD10.1 million

As an example of our analysis described in the previous page, the gap between import and export in Russia in 2013 amounted to USD 969 million. There are large local producers as well as branches of foreign paints and varnishes producer companies among which are: Krasky Teks, Russkie Krasky, Lacra Synthesis, ABC Farben and others. Based on the information provided by ITC, the largest importing countries are Germany, Belarus, Sweden, USA and United Kingdom. Considering the distance factor and renewed trade relationship between Georgia and Russia, we assumed that Georgia might take up some share of imports from the United Kingdom, Germany, Sweden and Poland. Total quantity of imports from the selected potential replacement countries amounts to 111 thousand tons. Considering the quality, brand and pricing factors of the existing competitor companies, we assumed that Georgia could potentially take up maximum 3% of the imports from the mentioned countries

As for the local consumption in Georgia, total value of imports amounted to USD 26 million whereas total value of exports amounted to USD 1 million. Total quantity of paints and varnishes imported in 2013 amounted to 13 thousand tons. We assume that potentially around 50% of local imports or total of 6 thousand tons can be replaced by the local production

As a result of our analysis, we have estimated the total capacity of the plant to be 15,000 tons per annum, which is comprised of 6 thousand tons (40% of total production volumes) to be produced for the domestic market and 9 thousand tons (60% of total production volumes) to be produced for the export market. Total investments for the project were determined based on comparable projects in India, Russia, Turkmenistan, Vietnam and China. Total capacity and investment in the projects varied between 10 thousand and 600 thousand tons and from USD 4 million to USD 397 million, respectively. Average investment per ton of capacity amounted to USD675, yielding total estimated project cost of USD 10.1 million

Comparable projects

Company	Plant Location	Date	Investment, USD mln	Capacity, thousand tons	Investment per tonne, USD
Asian Paints	Nanjangud, India	2014	397	600	662
Asian Paints	Andhra Pradesh, India	2015	282	400	706
Nippon Paint	Vinh Phuc, Vietnam	2014	14	15	938
Hempel	Nashik, India	2014	4	10	394
Industry average					*675*

While selecting the projects we considered ones constructed after 2013 only in order to have most recent data. The estimation has been performed based on the available data and educated guess, therefore it is recommended to perform thorough analysis before commencing to a certain project.

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The main competitor countries and companies

The main competitor countries are Russia, Ukraine and Turkey

The major competitor countries can be considered the neighboring countries which have significant production facilities. Based on our analysis, these include:

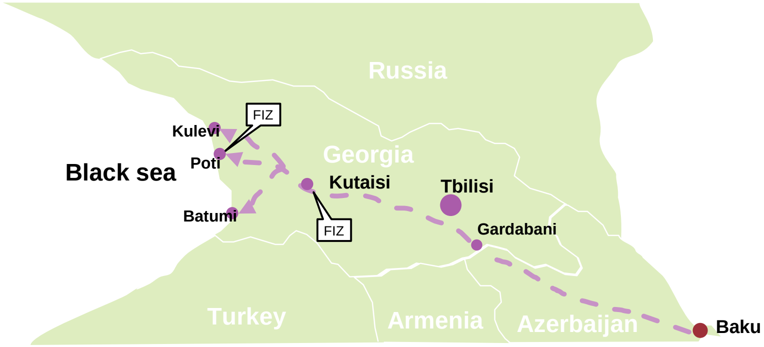
Main Competitor countries	Main competitor companies
Russia	• OOO Tikkurila • Bina Chemical Ltd. • OOO Kraski Teks • OOO Khenkel Bautekhnik • Npf Technohim
Ukraine	• Zip Industrial Company, Limited Liability Company • Snezhka Ukraina, Tov • Vyrobnyche Pidpryemstvo Polisan, Tov • Tikkurila Limited Liability Company • Lakofarbovy Zavod Avrora, Tov
Turkey	• Betek Boya Ve Kimya Sanayi A S • Polisan Holding A.S. (IBSE:POLHO) • DYO Boya Fabrikalari Sanayi ve Ticaret AS (IBSE:DYOBY) • Jotun Boya Sanayi Ve Ticaret AS • Kayalar Kimya A.S.

The above listed companies have significant shares in each country, as well as supply foreign markets. Based on the available information, total capacity of production plants varies between 150,000 - 180,000 tons per year

Some of the above listed companies supply only the domestic market (for example, OOO Kraski Teks) and some of them sell their production on exports as well (e.g. Jotun Boya Fabrikalari and Kayalar Kimya A.S.)

The production in Armenia, Azerbaijan and Central Asia countries is not significant.

Georgia’s competitive advantage in manufacturing the chemical product



- *Strategic location* – Georgia’s strategic location is an asset to any investor. As a bridge between Europe and Asia, Georgia offers direct access to European, GCC and CIS markets. Its three major oil and gas pipelines, Black Sea ports, well-developed railway systems, together with its airports are playing an increasingly important role in linking the East and West
- *Stable macroeconomic environment* – even though macroeconomic situation in the region is unstable, Georgia demonstrates positive expected economic growth of 2.5% in 2015, whereas in neighboring countries either economic contraction or growth close to zero is expected
- *Liberal Trade Regimes* – Georgia has low tariffs and streamlined border clearance procedures. With a range of Free Trade Agreements, Georgia has access to a 900 million market that is not subject to customs tax, including Turkey, CIS and EU countries
- *Free Industrial Zones* – Georgia has two industrial zones, in which businesses are exempted from all tax charges, except personal income tax
- *Low electricity cost* – The highest tariff for industrial consumers of one KWh energy in Georgia in 2014 was around USD 0.045 which is lower than in neighbor countries (in Armenia the price is around USD 0.069/per KWh, in Turkey USD 0.093/per KWh and in Azerbaijan 0.057/per KWh).*
- *Labor cost* in manufacturing industry is low amounting to 410 USD monthly on average
- *Legal*: No legal restrictions for importing/exporting and producing paints and varnishes in Georgia and in the region
- *Raw materials* – Georgia itself may not be the producer of the key raw materials, however solvents (primarily methanol) and resins can be easily obtained. Based on obtained data for 2013, Azerbaijan represents the net exporter of Resins with the amount of 26 thousand tons. AzMeCo together with Poti Terminal Holding, has finished construction of Methanol Terminal in Poti that will be able to handle more than 60 thousand tons of Methanol per month
- *Special Customs regime for exporters* - “Internal Processing Customs Regime”, which offers tax incentives for exporting companies. A company may get a license from the Ministry of Finance about “Internal Processing Regime” and receive an exemption from VAT and from import/customs tax on raw materials. If an exporting company sells the products in Georgia, then it has to pay VAT and import/customs tax only for these products.
- *Corporate profit tax* is flat at 15%. *Personal income tax* is 20% and there is no social tax.
- *Depreciation of capital assets*– Based on the Tax code legal entities are able to fully depreciate their assets in the year in which they are put into operation. As a result, significant amount of tax loss-carry forward is generated which could be used during the first years of operation

** Note: The prices are converted to USD based on the exchange rates as at 29 April 2015 (GEL/USD - 2.31, AMD/USD - 475.94, AZN/USD – 1.05, TRY/USD – 2.67)*

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Potential expert database

Paints or varnishes production sector had 92 employees in 2013

We obtained the official data on the average number of people working in chemical production.

The number provided below on the average number of people include not only chemists, but also other positions working in the sector (technical staff, administration etc.). The separate data on chemists is not separately available.

Annual average number of people working in chemicals production 2012-2013 (Declared Data)		
Person		
	2012	**2013**
Chemicals production	5,560	5,414
From above		
Paint or varnish production	116	92

As of 2013 the number of people employed in the chemical production sectors was 5,414. The number of people in paints or varnish production sub-sector was 92.

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Key assumptions

Based on the data gathered and analyzed in the previous stages, we performed high level financial calculations for the potential project on producing Paint and Varnish in Georgia. The more detailed description of the assumptions and relevant calculations are provided further on

- Construction period was forecasted to last one year
- Capacity utilization was forecasted to reach 25% in the second projection period and further increase by 25% annually reaching 100% in the 5th projection period
- The delay in the launch of the production is due to the forecasted plant construction period. The delay in reaching full forecasted capacity of the production is due to the estimated time needed for marketing the product and building brand recognition, as well as considering learning curve effect.
- During the forecasted period the maximum capacity has been estimated as the nominal capacity determined based on the analysis of the data obtained during the research, i.e. potential debottlenecking of production has not been considered.
- Maintenance capital expenditures were forecasted based on initial investment and estimated useful life of the plant of 30 years. As a result, maintenance CAPEX amounted to USD 338 thousand, further adjusted for the expected USD inflation.
- Maintenance CAPEX was assumed to be incurred starting from the 5th projection year
- As per the Georgian tax code, legal entities are able to fully depreciate their assets in the year in which they are commenced. As a result, the project will generate significant amount of tax loss-carry forward in the 1st projection year, making the project effectively exempt from corporate income tax during the first four years
- WACC is estimated to be 15% for all chemicals products
- Based data provided by Damodaran, industry average capital structure of the chemicals producing companies in the emerging markets comprises of 29% debt and 71% of equity. The capital structure of the project was assumed to be the same as industry average

Construction project details	
Investment, '000 USD	18,150
Capacity, tons	15,000
Construction timeline, years	1
Annual CAPEX, '000 USD	338
Domestic sales, %	*40%*
Export sales, %	*60%*

Source: KPMG Analysis

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Sales projections

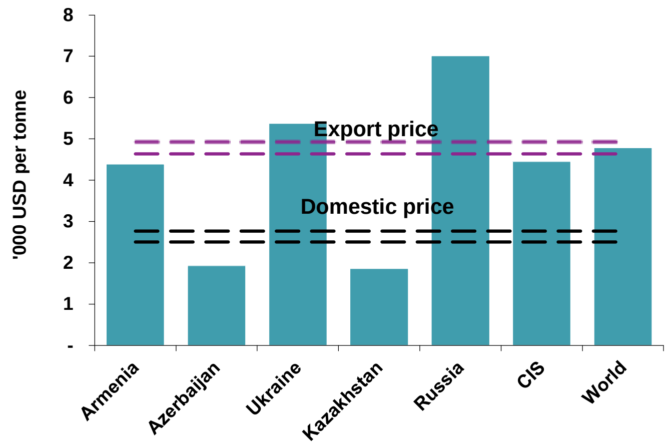
Sales volumes

Production of paints and varnishes was projected to start in Year 2 at the level of 3,750 tons further increasing to 15,000 tons in Year 5. Sales volume on the domestic market was estimated to be 40% of total production, while remaining 60% is expected to be sold on export

Seles price

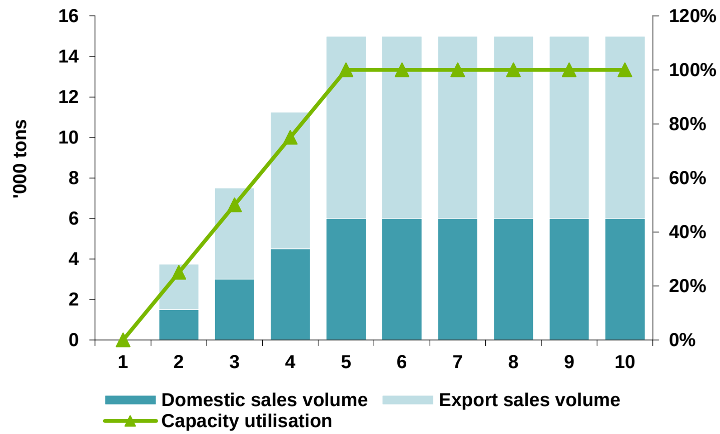
Average price per ton for the domestic market was estimated to be USD 2,633 based on average import price as provided by International Trade Centre (ITC), while export price was forecast based on average world import price per ton and amounted to USD 4,783 per ton

Selling prices



Source: ITC, KPMG Analysis

Sales volumes of the plant



Source: ITC, KPMG Analysis

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Financial performance

We have assumed projection period of 10 years, followed by terminal period. The construction of factory is expected to be finished by the end of the first projection period, after which the plant will be commenced

Gross and EBITDA margins were forecasted to amount to 27.5% and 10.3%, respectively throughout the forecast and terminal periods. EBT margin was projected to vary between 8.1% and 9.8%. The COGS and the SG&A expenses have been calculated based on the industry average margins published in CapitalIQ. Volatility of EBT margin is explained by increasing capital expenditures starting from year 5 and absence of corporate income tax till year 6.

Projected statement of Profit and Loss

'000 USD	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TP
Revenues	-	15,358	31,422	48,311	65,702	67,082	68,558	69,998	71,468	72,969	74,428
Growth			*104.6%*	*53.8%*	*36.0%*	*2.1%*	*2.2%*	*2.1%*	*2.1%*	*2.1%*	*2.0%*
COGS	-	(11,129)	(22,770)	(35,009)	(47,612)	(48,612)	(49,682)	(50,725)	(51,790)	(52,878)	(53,935)
Gross profit	**-**	**4,228**	**8,651**	**13,302**	**18,090**	**18,470**	**18,876**	**19,273**	**19,677**	**20,091**	**20,492**
Gross profit margin		*27.5%*	*27.5%*	*27.5%*	*27.5%*	*27.5%*	*27.5%*	*27.5%*	*27.5%*	*27.5%*	*27.5%*
SG&A	-	(2,641)	(5,405)	(8,309)	(11,301)	(11,538)	(11,792)	(12,040)	(12,292)	(12,551)	(12,802)
EBITDA	**-**	**1,587**	**3,247**	**4,992**	**6,789**	**6,932**	**7,084**	**7,233**	**7,385**	**7,540**	**7,691**
EBITDA margin		*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*
Financial Depreciation		(338)	(338)	(338)	(344)	(356)	(369)	(382)	(396)	(409)	(423)
EBT	**-**	1,249	2,909	4,655	6,446	6,575	6,715	6,851	6,989	7,131	7,267
EBT margin		*8.1%*	*9.3%*	*9.6%*	*9.8%*	*9.8%*	*9.8%*	*9.8%*	*9.8%*	*9.8%*	*9.8%*
Corporate Income tax	-	-	-	-	(917)	(982)	(1,004)	(1,025)	(1,047)	(1,069)	(1,090)
Net Income	**-**	**1,249**	**2,909**	**4,655**	**5,528**	**5,593**	**5,711**	**5,826**	**5,943**	**6,062**	**6,177**
NI margin		*8.1%*	*9.3%*	*9.6%*	*8.4%*	*8.3%*	*8.3%*	*8.3%*	*8.3%*	*8.3%*	*8.3%*

* For our calculation purposes, we have not adjusted corporate income tax for the changes in deferred tax

Source: CapIQ, KPMG Analysis

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COGS and SG&A expenses

Cost of Goods Sold and Selling, General and Administrative expenses were forecast based on 3 year industry average Gross and SG&A margins of 27.5% and 17.2%, respectively

78% of COGS were accounted for raw materials and remaining 22% was split between Labor (8%), Energy (4%) and Overheads, taxes and other (10%). Cost of raw materials were projected based on average composition between architectural and industrial paints and varnishes, resulting in the following shares: resins – 40%, pigments – 23%, additives 10%, solvents – 13%; others 14%

COGS and SG&A

'000 USD	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TP
COGS	**-**	**(11,129)**	**(22,770)**	**(35,009)**	**(47,612)**	**(48,612)**	**(49,682)**	**(50,725)**	**(51,790)**	**(52,878)**	**(53,935)**
Raw materials	**-**	**(8,681)**	**(17,761)**	**(27,307)**	**(37,138)**	**(37,918)**	**(38,752)**	**(39,566)**	**(40,396)**	**(41,245)**	**(42,070)**
Resins	-	(3,472)	(7,104)	(10,923)	(14,855)	(15,167)	(15,501)	(15,826)	(16,159)	(16,498)	(16,828)
Pigments	-	(1,997)	(4,085)	(6,281)	(8,542)	(8,721)	(8,913)	(9,100)	(9,291)	(9,486)	(9,676)
Solvents	-	(1,128)	(2,309)	(3,550)	(4,828)	(4,929)	(5,038)	(5,144)	(5,252)	(5,362)	(5,469)
Additives	-	(868)	(1,776)	(2,731)	(3,714)	(3,792)	(3,875)	(3,957)	(4,040)	(4,124)	(4,207)
Other	-	(1,215)	(2,487)	(3,823)	(5,199)	(5,308)	(5,425)	(5,539)	(5,655)	(5,774)	(5,890)
Labor	**-**	**(890)**	**(1,822)**	**(2,801)**	**(3,809)**	**(3,889)**	**(3,975)**	**(4,058)**	**(4,143)**	**(4,230)**	**(4,315)**
Energy	**-**	**(445)**	**(911)**	**(1,400)**	**(1,904)**	**(1,944)**	**(1,987)**	**(2,029)**	**(2,072)**	**(2,115)**	**(2,157)**
Overhead taxes and other	**-**	**(1,113)**	**(2,277)**	**(3,501)**	**(4,761)**	**(4,861)**	**(4,968)**	**(5,073)**	**(5,179)**	**(5,288)**	**(5,394)**
SG&A expenses	**-**	**(2,641)**	**(5,405)**	**(8,309)**	**(11,301)**	**(11,538)**	**(11,792)**	**(12,040)**	**(12,292)**	**(12,551)**	**(12,802)**

Source: CapIQ, KPMG Analysis

NPV analysis

The NPV of the project is positive amounting to USD 18.1 mln

Discounted cash flow results

'000 USD		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Terminal period
Total revenues		**-**	**15,358**	**31,422**	**48,311**	**65,702**	**67,082**	**68,558**	**69,998**	**71,468**	**72,969**	**74,428**
% of growth			*-*	*104.6%*	*53.8%*	*36.0%*	*2.1%*	*2.2%*	*2.1%*	*2.1%*	*2.1%*	*2.0%*
EBITDA		**-**	**1,587**	**3,247**	**4,992**	**6,789**	**6,932**	**7,084**	**7,233**	**7,385**	**7,540**	**7,691**
EBITDA margin			*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*
EBIT		**-**	**1,249**	**2,909**	**4,655**	**6,446**	**6,575**	**6,715**	**6,851**	**6,989**	**7,131**	**7,267**
Income tax (adjusted)		-	-	-	-	(917)	(982)	(1,004)	(1,025)	(1,047)	(1,069)	(1,090)
NOPAT		**-**	**1,249**	**2,909**	**4,655**	**5,528**	**5,593**	**5,711**	**5,826**	**5,943**	**6,062**	**6,177**
Cash flow adjustments												
Depreciation		-	338	338	338	344	356	369	382	396	409	423
CAPEX		(10,125)	-	-	-	(374)	(382)	(390)	(399)	(407)	(415)	(424)
Change in working capital		-	(1,536)	(1,606)	(1,689)	(1,739)	(138)	(148)	(144)	(147)	(150)	(146)
FCFF		**(10,125)**	**51**	**1,640**	**3,303**	**3,759**	**5,429**	**5,542**	**5,665**	**5,784**	**5,906**	**6,031**
WACC	*15.0%*											
Terminal growth rate	*2.0%*											
Terminal value												**46,393**
Discount period		0.50	1.50	2.50	3.50	4.50	5.50	6.50	7.50	8.50	9.50	9.5
Discount factor		0.9325	0.8109	0.7051	0.6131	0.5332	0.4636	0.4031	0.3506	0.3048	0.2651	0.265
Discounted FCFF		**(9,442)**	**42**	**1,157**	**2,025**	**2,004**	**2,517**	**2,234**	**1,986**	**1,763**	**1,566**	**12,298**
Sum of discounted cash flows	5,852											
Terminal value	12,298											
NPV	**18,150**											

Source: CapIQ, KPMG Analysis

Paint and Varnish

Key profitability factors of the Project

Based on the high-level calculations the project is feasible with IRR of 34.3%

Key profitability factors of the project											
'000 USD	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**TP**
Revenues	-	15,358	31,422	48,311	65,702	67,082	68,558	69,998	71,468	72,969	74,428
EBITDA	-	1,587	3,247	4,992	6,789	6,932	7,084	7,233	7,385	7,540	7,691
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EBITDA margin	-	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*	*10.3%*
Net income margin	-	*8.1%*	*9.3%*	*9.6%*	*8.4%*	*8.3%*	*8.3%*	*8.3%*	*8.3%*	*8.3%*	*8.3%*
NPV of the Project	18,150										
IRR	*34.3%*										
Payback period	4.3										

Source: CapIQ, KPMG Analysis

Our assumptions and analysis have been performed based on the general economic and sector indicators. The detailed calculations for Georgia, including construction costs, labor costs, specific legal and environmental costs etc have not been considered. However, the country specific taxation, as well as the CPI and the pricing data have been considered.

The results show that the project is feasible for the calculated optimal capacity and the relevant investment, as well as given costs assumptions. The NPV of the project is positive amounting to USD18.1 mln, the IRR is high amounting to 34.3%. The payback period is estimated to be 4.3 years.

KPMG

cutting through complexity