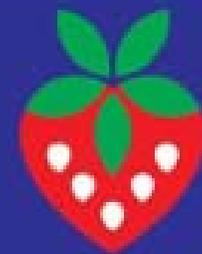


**BIGA ARMENIAN-DUTCH JV LLC**

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# **Expansion Business Plan**

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**Mirak Trading LLC**

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# 1

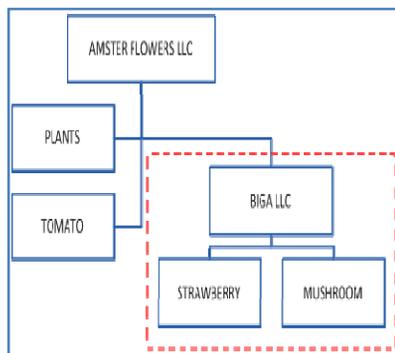
## EXECUTIVE SUMMARY





General objectives of the business are:

- To increase production capacities.
- To decrease negative seasonality effects by diversifying product line.
- To use advanced and modern technologies for intensive expansion



**Entire business is conducted through Biga Armenian-Dutch JV LLC and Amster Flowers Armenian-Dutch JV LLC.**

**Mission**

Mission of the Company is to produce high quality fresh agro-production and deliver it to the ultimate buyers both in local and foreign markets.

The Company aims to be an economically viable, consistent, sustainable and diversified business which is highly competitive both in local and export markets, which uses good agricultural practices to produce the highest quality cultivated, natural, non-GMO crops for its consumers.

**Development Plan**

**The Company intends to establish:**

- A new greenhouse of 5 hectares for strawberry growing, containing 750,000 plants for winter crop
- Open area of 5ha strawberry fields with small greenhouse for cultivating seedlings on 5 ha with 150,000 plants
- A new mushroom growing plant near the existing plant.
- A new 1ha greenhouse for tomato breeding, to be constructed near the current one.
- A special storage for keeping fertilizers, coco peat and other inventories in secure and safe conditions.
- Install new growing lights in existing tomato greenhouse

**Investments Planned**

Item	Total, USD'mln	BIGA	EBRD
Strawberry - New	12.2	1.7	8.3
Mushroom - New	4.2	0	4.2
Tomato - New	2.7	0	2.7
Hangar Construction	0.2	0	0.2
Lamps -Tomato	0.3	0	0.3
Plants	0.3	0	0.3
<b>Total*</b>	<b>19.9*</b>	<b>1.7</b>	<b>16</b>

**Concept proposal**

Currently the Company seeks a strategic partner to attract financial resources for the expansion of the business. EBRD is considered as main potential partner. Mezzanine financing of USD 16mln may be applied to successfully implement the development plan with further conversion to Company in the near future.

The financial resources anticipated to be attracted are to be fully utilized for business expansion purposes.

**\* Additionally, the cash inflows generated from the operational activity are to be invested in the business: c. USD 2.7mln**

# 2

## Company Background





**BIGA's long term vision is to increase profits by decreasing production and operational costs and increasing its market reach globally.**

**Vision**

**Quality assures long term profitability.**

BIGA Ltd is dedicated to produce the best quality fresh fruits and vegetables and thus increase brand loyalty of its customers, resulting in higher customer retention rate. All the above mentioned attributes will allow BIGA to gradually increase the production rate, and simultaneously raise the production prices. BIGA strives to be the dominant food exporter to Middle East and reflect Armenian fresh food's image in the region (Middle East).

**Long Term Goals**

- Penetrate into new markets by positioning as high quality, non-GMO product from Armenia
- Establish relationship with leading distribution companies in CIS and the Middle East
- Expand collaboration with Mirak Group by growing new vegetables (iceberg lettuce) and fruits (cherry)
- Establish R&D department to provide researches in the fields of adapting advanced technologies to (in) local environmental conditions and to develop strategy to substitute imported materials with locally produced

General objectives of the business are:

- To increase production capacities.
- To decrease negative seasonality effects by diversifying product line.
- To use intensive advanced and modern technologies



The Company was awarded with solid awards for many years

**Basic Information**

<b>Sphere:</b>	<b>Agriculture</b>
Registration Date:	24.02.2005
Registration Number:	26411007131
Tax ID:	00089298
Legal Address:	36/3 N. Zaryan Str., Yerevan, Armenia

**Short Term Goals**

- Increase productivity in existing greenhouse by using new technologies and build a new 1ha greenhouse
- Construct hangar for store in proper conditions turf and other inputs utilized for mushroom business
- Build new 12 units mushroom factory
- Build 5ha of strawberry greenhouse to utilize the high prices in winter season
- Use extensive growing technologies in newly constructed strawberry greenhouse
- Establish Accounting and Management reporting OS



Annual sales for 2013 was over USD 5mln.  
Net Profit for the same period exceeded USD 950k.

## BIGA

BIGA was registered in 2010 and is operating in Strawberry and Mushroom growing business.

Strawberry growing fields are located in Akunq Community, Kotayq Region, Armenia.

Mushroom growing plant is located in Margara, Armavir Region, Armenia. BIGA Mushroom is using the latest Dutch technologies in the production in order to achieve high quality and maximum yield.

### Existing Production Capacities

<u>Business Direction</u>	<u>Growing Area</u>	<u>Annual Yield</u>
▪ Strawberry fields	15 ha	350tones
▪ Mushroom	2,880 sqm	720 tones
▪ Tomato	10,000 sqm	362.5 tones
<i>Standard</i>	7,500 sqm	300 tones
<i>Cherry</i>	2,500 sqm	62.5 tones

## AMSTER FLOWERS

AMSTER FLOWERS was registered in 2006 and is engaged in tomato growing and decorative plants import, regeneration and distribution. Tomato greenhouses are located in Margara, Armavir Region, Armenia.

Plants business is operating from Margara, Armavir Region, Armenia (growing facilities) and 9 Arshakunyats Ave, Yerevan (Showroom).

### Investments, USD'000, 2010-2013

<u>Direction</u>	<u>Total</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Strawberry	4,512	1,203	2,005	1,003	301
Mushroom	4,265	-	2,031	2,234	-
Tomato	2,760	2,760	-	-	-
Plant*	500	-	-	-	-
<b>Total</b>	<b>12,037</b>	<b>3,963</b>	<b>4,036</b>	<b>3,237</b>	<b>301</b>

\* Actual investments were made in 2006

This business line is excluded from calculations and projections due to its small share in total volumes, instead all fixed expenses are considered.

**In 2014, BIGA and AMSTER FLOWERS will be grouped under the umbrella of BIGA AGRO GROUP to manage the whole business.**

The business owners are actively engaged in business management processes by ensuring that the business is properly managed and controlled.

**BIGA**

Shareholder Name	Share, %
Karen Gevorgyan	30%
Kim Yeganyan	25%
Garnik Petrosyan	25%
Amster Flowers JC LLC	20%
<b>Total</b>	<b>100%</b>

**AMSTER FLOWERS**

Shareholder Name	Share, %
Kim Yeganyan	45%
Garnik Petrosyan	45%
Karen Gevorgyan	10%
<b>Total</b>	<b>100%</b>

**Key Management Personnel**

Mr Samvel Petrosyan - general manager, whole businesses.

Line Managers

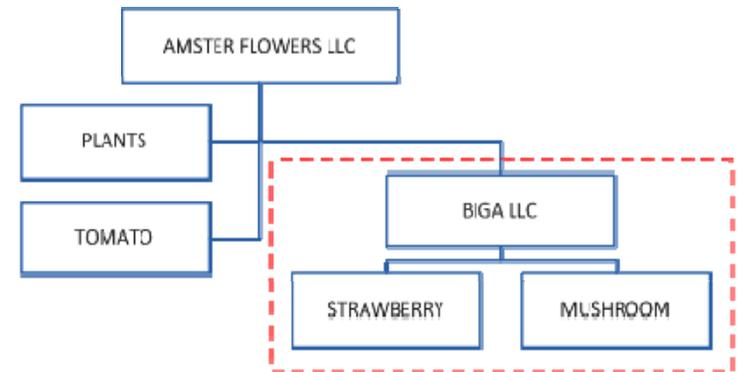
Mr. Davit Ghukasyan – Mushroom business.

Mr. Aram Asatryan – Tomato growing business.

Mr. George Gadimy\_– Strawberry business.

Mrs. Donara Kostandyan– Strawberry business.

**Current Structure**



All strategic decisions are driven by shareholders, who are actively engaged in the management processes of the whole business, while daily and operational management is conducted by experienced professionals, who carry out daily works to ensure stable management over the whole process.



*The first harvest of strawberry was received in 2012.*

## Strawberry growing fields are located in Akunq Community, Kotayq Region, Armenia.

### Strawberry Growing Fields

The Company operates on rented land plots of 15 hectares in Akunq Community, Kotayq Region, Armenia by running constructed production premises on 8 hectares of the above mentioned area.

For effective management and tax optimization purposes the properties are rented from the shareholders.

The construction process was finalized in March, 2013. Overall USD 4.5mln was invested in this business line.

The first harvest of strawberry was received in 2012.

The equipment and technological systems have been purchased from Mirak Group.

Overall 500k plants are planted on this area, which ensures 350 tones of strawberry growing annually (i.e. each plant provides 0.7kg crops annually).

Special Fast cooling System-FCS was established to prolong shelf life and deliver fresh products to local and foreign markets. The production capacity of FCS is exceeding current production volumes and can serve the expansion requirements.

### View on Strawberry Growing Facilities



### Actual Investments

Item	Value, USD
Land Purchase and Leveling	1,250,000
Greenhouse	600,000
Buildings	460,000
Equipment & Machinery	952,000
Plants	500,000
Perlit & Coco peat	260,000
Other CAPEX	490,000
<b>Total</b>	<b>4,512,000</b>

**Tomato growing greenhouses are located in Margara, Armavir Region, Armenia.**



**Tomato Growing Greenhouses**

The Company started tomato growing in 2010 and currently has two greenhouses with total growing area of 10,000 sqm, which ensure c. 360 tones of harvest annually. The greenhouses are furnished with modern equipments and technologies, purchased from Ammerlaan. The production is based on hydroponics standards. Hydroponics is the production of vegetables in modern, temperature-controlled, multi-span tunnels. In terms of implemented systems computer temperature sensors, automatic opening and closing vents, automatic misting units and temperature controlled fans are being exploited, which significantly increase the effectiveness and the efficiency of vegetable growing processes. Greenhouse/hothouse hydroponic tomatoes are used for the fresh tomato market only. While these tomatoes command a premium price in the market place, they are never used in processing. GH tomatoes would be considered trash in processed markets due to their water content. Additionally/Moreover, no bioengineered varieties are grown; most greenhouse varieties are produced by Dutch or Israeli seed companies.

*The first harvest of tomato was received in 2010.*

**View on Tomato Growing Facilities**



**Actual Investments**

Item	Value, USD
Greenhouse	2,240,964
Surroundings	24,096
Construction	240,964
Other	253,976
<b>Total</b>	<b>2,760,000</b>



*The first harvest of mushroom was received in 2011.*

**Mushroom growing plants are also located in Margara, Armavir Region, Armenia.**

**Mushroom Growing Plants**

The Company is in mushroom growing business since 2011. Currently the Company processes two mushroom plants with overall area of 2,400 sqm, containing productive shelves of 2,880 sqm, which daily production amounts to 2 tons. The mushroom plants are located in Margara, Armavir Region, Armenia.

Construction processes of the greenhouses were completed in 2010-2011, by Christiaens Group. BIGA started collaboration with Mirak Group in 2011 having a current production capacity of 2 tons per day and planning to increase the production capacity to 4 tons per day.

BIGA Mushrooms is using the latest Dutch technologies in the production of the mushrooms in order to achieve high quality and maximum yield from the said areas.

In its end Mirak Group is exporting mushrooms throughout the GCC and Asia, and looking to expand to the Southeast Asia. The mushrooms are packed in 250g punnets with 8 punnets in a carton with a net weight of 2kg.

**View on Mushroom Growing Facilities**



Source: Google Maps

**Actual Investments**

Item	Value, USD
Factory	3,598,193
Surrounding area of building	50,000
Building works	400,000
Other building works	125,000
Water drill	19,277
Road	38,554
Electrical grid & transformer	33,735
<b>Total</b>	<b>4,264,759</b>

# 3

## SWOT Analysis





**The company permanently pays attention to the improvement of its weaknesses by using its strengths and opportunities in order to properly overcome the threats.**

### Strengths

- Main shareholders actively engaged in business management
- Stable and long term relations with foreign partners
- Existence of advanced growing technologies and automated control of production process
- Brand recognition in local and foreign markets
- Highly supported by the Armenian Government
- High-quality technologies and equipment
- Professionally trained staff
- Business synergies and economies of scale due to the production varieties
- Dominant market share in local strawberry market
- Diversified business both geographically and by realization
- Professional international consultants and first hand market information
- Existence of own premises
- Existence of show room in Yerevan
- Presence in many shops and supermarkets locally and internationally
- Certificate of Non-GMO production

### Weaknesses

- Lack of financial resources to finance the potential growth of the business
- Seasonality of the strawberry growing due to the open air field

### Opportunities

- Availability of more than 40ha potential strawberry growing areas bordered with existing farm
- Huge potential in new gulf markets (Kuwait, Saudi Arabia, Qatar)
- Easier export operations to new Customs union member countries
- Increase of the demand for high quality GMO free food
- Own land in Armavir region for expanding mushroom and tomato production

### Threats

- Currency rate fluctuation
- Competition in foreign markets
- Transportation issues in case of export of vegetables;
- Emigration of population, which leads to the workforce fluctuations and decrease of local market demand

# 4

## Main Products





### **Strawberry**

The Company grows Albion, Portola and Monterey strawberry varieties. Each plant provides 0.7-1 kg crop annually. Berries are sweet flavored, red throughout, conical and evenly shaped with a high percentage of top quality fruit. This variety is considered as disease resistant and day neutral plant by ensuring 10-day shelf life, which makes the production more competitive in terms of exportation and realization. Those species produce a high percentage of marketable fruit that are quite firm and even enduring prolonged wet spells.



### **Mushroom**

The Company grows Champignon type of mushrooms, which has large consumption both in local and foreign markets and is widely used in local and foreign cuisines. Mushrooms are categorized to three sizes, by the diameter of the cap: small (3cm-4.5cm), medium (4.5cm-6cm) and large (6cm and more). Local market consumes mainly large and medium cap mushrooms while The Middle East consumes mainly small cap mushrooms. Market diversification assures high prices for all produces, whereas in Armenia the small caps are considered as immature and thus are priced very cheap.



### **Tomato**

The Company grows Cherry, Beefsteak and Standard juicy tomato varieties. Cherry tomatoes are slightly smaller and sweeter than conventional tomatoes. They are a popular variety of tomato all over the world. Beefsteak tomatoes are large, juicy tomatoes perfect for eating fresh from the harvest. Beefsteaks are typically wide tomatoes, but the more round types have a sweeter flavor.

A Cherry plant provides 25-30 kg, and a beefsteak plant provides 40-50 kg crops annually. The highest figures of yield will be reached by using the special energy efficient growing lights.

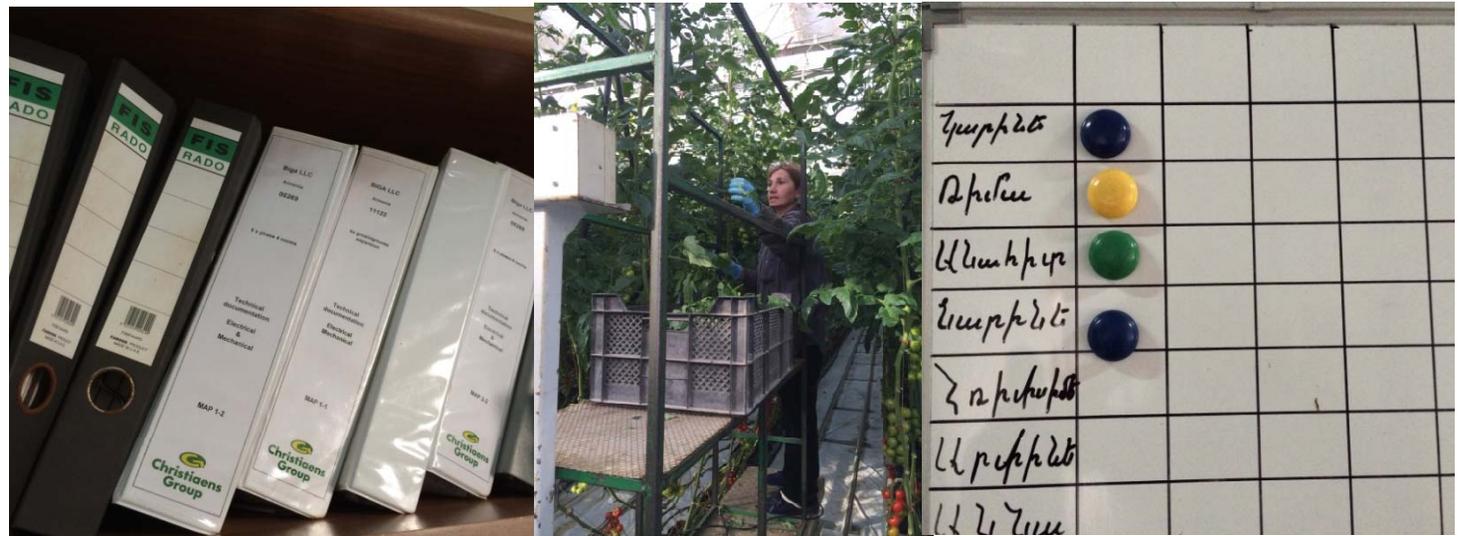
### **Decorative Plants**

The Company runs both indoor and outdoor decorative plants importation and trading business. Overall more than 100 varieties are presented to the local market based on specific volatile demand changing year over year. The plants are being imported from Holland.



# 5

## Operations and Production Plan



### Description



Currently the business owners and specialists think about increasing the efficiency and effectiveness of strawberry growing. Particularly, special pots are to be installed for constructing 8-level growing areas (overall 4 plants on each level).

The strawberry plants are being purchased from Holland, where the Company has a long term strategic partner, *Vissers Aardbeiplanten BV*.

The plants are being seat in the end of April and the first harvest is being gathered after 2 months. After the first harvest on daily basis the harvest is gathered by the collectors. The harvest season lasts till the end of November. Each plant produces up to 1kg crop, which can be increased up to 1.5kg within 1-2 years, via the improvement of production process. The strawberry farm is the only one in Armenia, which has a post harvest technology installed in house. It includes the system of fast cooling, which allows maintaining “just-picked” fresh quality of berries, facilitates the (easies) transportation and prolongs the life span of berries by extra 10 days. The berries grow open air, which makes them exposed to the direct sunlight, wind and rain and thus improves the plants’ photosynthesis and absorption of oxygen through rain. The pollination is carried out by specially imported bees. Harvesting berries in special boxes located above 80cm ground level allows eliminating the risk of various diseases that can occur by berries interacting with the soil if grown on the ground. It also increases the crop collection efficiency by workers as they do not bent to collect the crop. Closed controlled irrigation circle in place saves water and reduces quantity of mineral substances used, resulting in a better quality crop. All together, the detailed consideration and control over harvesting and post-harvesting processes extends the berries shelf life.

The foreign buyers send company specialists to Armenia to train the local staff each year for 2 months. They also follow the crop collection process and thus carry out quality control process on site. The gathered production is packaged in boxes, which ensure the products are not damaged during the transportation. The realization is being conducted by drivers, who arrange transportation of the products from the fields to the Airport for export or to the large supermarkets. To be noted that retailers and buyers of smaller volumes purchase strawberry right from the field.



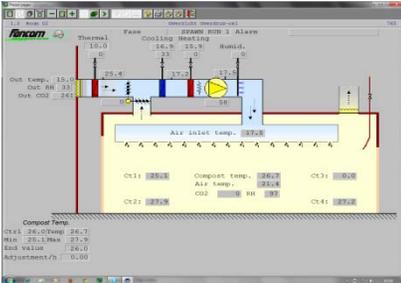


**Mushroom growing factories are furnished with equipment imported from the well-known producer CHRISTAENS GROUP to ensure high-qualified products.**

### Description

The company imports 3<sup>rd</sup> phase ready-to-grow mushroom compost from Netherlands. Other composts (Hungarian, Polish, Armenian) testing showed that the best price/quality/quantity ratio is provided by the Dutch compost. The compost is being placed on the shelves and being irrigated with water enriched with fertilizers. Special systems are installed to allow permanent control over the humidity, air conditioning and temperature in each hall, where the shelves are located.

Special software system is installed, which is used to monitor and control the productive environment. The software allows the manager to control it remotely via mobile or other devices.



As per technology the first harvest of mushroom is being received 12 days after seeding. Actually the first harvest is about 248,8 kg per sqm of the production area. The second portion of the harvest is received after 14 days. The gathered mushrooms are being packaged in special boxes for further transportation to export markets or local resellers.

There is a fast cooling system which is being utilized for keeping the gathered mushrooms' fresh product look till its transportation to the buyer.

Growing processes in mushroom business are managed, monitored and controlled by a software product, developed by FANCOM specialized Software company. The software allows setting the indicators acceptable thresholds and in case of deviations from those limits special alarms are sent to the controller.

The Company has own vehicles which are exploited for the product transportation.





## Tomato growing greenhouse is equipped with high-quality technologies including hydroponic and drip irrigation systems.

### Description

The tomato seeds are imported from the Netherlands. The plants are usually sown in July-August each year and the first harvest is gathered from September, which lasts till June (next year). Overall 50 kg of standard tomato and 25kg of cherry tomato is being gathered per 1 sqm of the growing area annually. For effective business management purposes July-August is selected as a period for plants' renewal given that the market prices are at the lowest level for that period, thus it is not economically justified and effective to grow tomato in greenhouses during those months. To arrange proper pollination within the greenhouse sections special bee-hives are being used, which are purchased from Biobest Belgium N.V. Those bee-hives are renewed every 6 weeks. Overall 8 bee-hives are installed in the greenhouse to "serve" the whole area. Given the fact that the whole harvest season is 8 months, the total quantity of bee-hives purchased is about 30 annually. A correct balance between macronutrients and micronutrients is provided to obtain the best results from tomato crops. A water reservoir is installed in the greenhouse which ensures permanent water supply to the plants. Before supply the water is being enriched with fertilizers and special medicines are being added to the water to eliminate the risk of any possible diseases.

Special software system is installed in the greenhouse, which allows to preliminarily set thresholds for humidity, air temperature, day lights, etc. In case of any deviation of those indicators special alerts are being sent to the staff members for preventive or corrective actions. In the current stage the business owners intend to install special lamps, which will ensure proper lighting in the greenhouse thus encouraging the plants grow faster and more effectively. This will also lead to the decrease in gas utilization expenses by c. 25%. There is also a special water tank located in the greenhouse where the water is being gathered during day time which in the night time is used to reduce gas utilization expenses. The Greenhouse has its own heating substation, which can independently provide heating to the whole greenhouse in case of the interruption of gas supply, based on diesel engine.

The harvest is being gathered on daily basis and immediately transported to the resellers and other buyers. Some portion of the harvest is being collected by the buyers themselves.

**Each plant has its own growing cycle which directly impacts the production volumes and cash flows of the whole business.**

**Annual yields per square meter for each crop type (kg/sqm)**

Total area of strawberry growing is arranged on the fields of 15 hectares.

Tomato is harvested on 10,000 sqm greenhouse comprising of two 5,000 sqm sections, one for Beefsteak tomatoes and the other one for Cherry.

The Mushroom production plant is in the same land plot with tomato greenhouse and has area of 1,000 sqm, with productive shelves of 2,880 sqm.



Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Strawberry	N	N	N	H	H	H	H	H	H	H	H	N
Tomato	H	H	H	H	H	H	N	N	H	H	H	H
Mushroom	H	H	H	H	H	H	H	H	H	H	H	H
Plants	H	H	H	H	H	H	H	H	H	H	H	H

*H - Harvest Season    N - No Harvest*

Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Strawberry-500k plants	0	0	0	0	0	50	50	50	70	80	50	0	350
Tomato (Beefsteak) m2	3	3	3.5	7	7	5.5	2.5	0	0	1	3	4.5	40
Tomato (Cherry) m2	1.9	1.9	2.2	4.4	4.4	3.5	1.5	0	0	0.6	1.9	2.7	25
Mushroom -m2	16,2	20,2	24,7	24,7	24,7	24,7	13,5	13,5	13,5	24,7	24,7	24,7	250



**To ensure the quality of the products is properly satisfying the standards and is within the acceptable framework the Company conducts regular quality check processes**

### Quality Assurance Actions

- ✓ On monthly basis the water utilized in the production processes of tomato growing cycles is sent to the Netherlands to get the laboratory results.
- ✓ On monthly basis the statistical data regarding the weather conditions and the quality of the product received are analyzed to reveal the impact of weather conditions on the quality and quantity of the harvest.
- ✓ Plants of strawberry (Vissers Aardbeiplanten BV), compost for mushroom growing (Walkro International BV /also from their subsidiary company - DTO/) and seeds of tomato (from the growers) are being purchased from the Netherlands.
- ✓ Coco peat is being purchased from a well-known company, located in Sri Lanka.
- ✓ Cardboard box “bee hives” are purchased from Biobest Belgium N.V., which has a good reputation in its field.
- ✓ Mirak Group, strategic partner of the Company, conducts regular visits to the production premises by analyzing the production and harvest gathering processes.
- ✓ Daily monitoring and controlling activities are being conducted by the staff in the local work stations and production facilities.
- ✓ The computer systems allow setting up required settings to manage the climate within the greenhouses by automatically changing the internal climate depending on external weather conditions, i.e. sun, light, wind, etc.



# 6

## Marketing Plan



Overall 11,406.03 tones of fresh fruits and vegetables were exported from Armenia as of March 20, 2014, against the 3,312.64 tons in the same period last year<sup>4</sup>.

Country	Volume, Tones
Georgia	8,815.58
RF	2,486.97
Iraq	66.72
UAE	36.60
Ukraine	0.16
<b>Total</b>	<b>11,406.03</b>

## Current strategy of RA government is mostly inclined to encourage the development of foreign investment and foster business cooperation with foreign companies.

### Macroeconomic Highlights

Currently the agriculture sphere is one of the vital areas of the local economy.

This strategy has a fundamental role for the full use of local economic potential.

In recent years the agricultural industry has been ensuring about 17% of GDP, which, combined with the share of agro processing, results in c. 23% of GDP.<sup>1</sup>

About 97% of agricultural production is provided by private sector.

### Current Trends

Given the small size of the local market, development of industrial agriculture in Armenia is largely contingent on the export potential.

There are c. 900 greenhouses in the country in 2013 with total area of about 130 hectares. The largest greenhouse is 5 hectares.

About 60% of their outputs are vegetables – tomatoes, cucumbers, beans and peppers, and 40% are flowers and ornamental plants<sup>2</sup>.

### Export Statistics by Product Types<sup>3</sup>

Product Type	Year	Volume, tones	Amount, USD'000
Tomato	2010	898	559
	2011	113	66
	2012	66	55
	2013	734	2,149
Mushroom	2010	531	285
	2011	660	587
	2012	830	1,293
	2013	1,347	2,284
Berry	2010	72	52
	2011	74	69
	2012	414	770
	2013	323	596
Flowers	2010	26	81
	2011	50	136
	2012	202	1,447
	2013	307	2,199

**The Company sells its products both in local and foreign markets. The export market includes mainly UAE and RF.**

The whole business can be described as export-oriented and well diversified.



The export market includes Dubai, UAE, where the Company sells through its main partner MIRAK GROUP and the Russian Federation, where BIGA LLC cooperates with AGRIFON LTD.



**Strawberry**

Local market capacity of strawberry is almost 200 tons annually, which is provided mostly by the Company (c. 85%) and a number of small local household-producers (c. 15%). In 2013, more than 50% of the produced berries have been exported to Dubai, UAE and Russia, while the rest has been consumed locally.

Local sales are conducted mainly via major supermarket chains and wholesalers, through which the Company's production is delivered up to local corner shops.

**Tomato**

Tomato grown by the Company is historically realized in local market. However, the business owners have preliminary intentions to arrange exportation of tomatoes starting from Russian market.

**Mushroom**

In terms of Mushroom growing and realization currently the Company has solid market position by being represented in all large supermarket chains and shops. As per the Company's calculations half of the production is consumed in local market, which assures c. 50% of local market volume.

The remaining part of produced mushroom is exported mainly through MIRAK GROUP to Carrefour, Waitrose and Spinney's supermarket chains in Middle East.

**Decorative Plants**

Decorative plants trading business is comparatively new for Armenia and currently there are no many large players in this market.



Given the diversification of the whole business the Company's main clientele consists of both corporate (wholesale) and individual (retail) customers. Furthermore, the Company realized the production in local and foreign markets. Currently proper arrangements are in process to get certification of organic production, which aims to strengthen the Company's market positioning.



**Strawberry and Mushroom are being exported, while Tomato and Decorative Plants are fully realized in local market.**

- Russian market for strawberry supply has no seasonality.
- Dubai market is attractive for April-September each year.

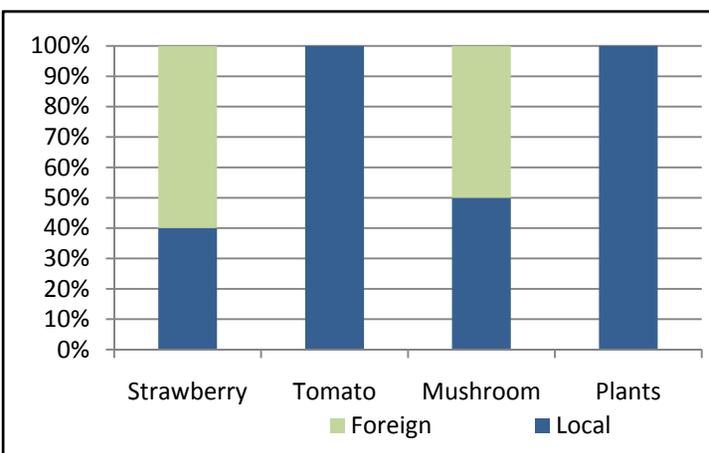
**Strawberry**

The Company has 245 tones maximum capacity of strawberry production on annual basis. Based on the market demand, the Company has selling potential up to 1,000 tons per season, mainly to UAE and Russia. MIRAK Group is ready and wiling to ensure 1,000 tones of annual purchase of strawberry.

No strawberry harvest is gathered during April-September in Dubai. For local market it is typical that the prices are very attractive and beneficial during October-November months.



**Sales Structure: Local vs. Export**



**Mushroom**

The Company has 720 tones maximum capacity of mushroom production on annual basis. Note that the market is also introduced with canned mushroom products, which take some market share. Among the main players BONDUELLE can be mentioned.

**Main Customers**

Client Name	Location	Products	Payment Method
Mirak Group	Dubai, UAE	Strawberry Mushroom	100 days after shipment
Agrikon LTD	RF	Strawberry	In cash
Supermarket Networks	Local, Armenia	Tomato Mushroom	60 days after shipment
Individuals	Armenia	Plants	In cash

Tomato prices depend on the seasonal availability and the quality of the product. This also emphasizes the competition in summer seasons, when the small farmers also enter into the local market by introducing their harvest. Furthermore, local market is introduced with imported standard tomato, mainly from Turkey and Iran.

**The Company sells its products both in local and foreign markets. The export market includes mainly UAE and RF.**

**Strawberry**

Due to its large size and existing production facilities the Company has no competitor in local market in terms of strawberry production.

There are only small farmers with little production volumes.

However, the local farmers can partly compete with the Company only in high seasons (1-2 months), by ensuring no competition in autumn months.

Armenian Harvest Promoting Center also entered into market.

**Tomato**

There are several large and small tomato growing greenhouses in Armenia and the Company has the relatively higher competition in this regard.

Main competitors in tomato market are MAVAS GROUP and GIO GROUP.

Competitor	Area, hectares	Location
MAVAS Group	4.2	Dzoraghbyur , Kotayq
BIO Group (to be constructed)	10.7	Jrvezh, Kotayq

**Mushroom**

The Company has solid market position by being represented in all large supermarket chains and shops locally. As per the Company’s calculations half of the production is consumed in local market, which assures c. 50% of local market volume.

The Company has competitors in mushroom business line, as there are several large and small mushroom growers in Armenia. The main competitor is AROGHJ SUNK Company (translated from Armenian “Healthy Mushroom”). In Dubai market the Company competes with Gulf Mushroom Products Co. (S.A.O.G), which also enjoys good market reputation by taking certain market share.

**Decorative Plants**

Regarding decorative plants business the Company’s main competitor in Armenia is BRABION Flora Service with their business line called ABIO.

# 7

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## Business Development Plan

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**EXPANSION PLAN**

- A new greenhouse of 5 hectares for strawberry growing is planned to establish, containing 750,000 plants. The planting area is used 3 times more effectively compared with open area fields
- Open area 5ha strawberry fields with small greenhouse for seed- plant growing on 5 ha will be established containing 150,000 plant
- A new mushroom growing plant will be constructed near the existing plants.
- A new greenhouse for tomato growing will be constructed near the current one (10,000 sqm).

**At the current stage of business development the company has intentions to expand the production capacities hence encouraging sales and realization volumes by also entering into new markets.**

**High-level Overview**

The Company intends to expand **strawberry** growing areas. It is planned to purchase new land plots (5 hectares) adjacent to the existing strawberry fields, construct a new greenhouse, as well as to renew the whole plants of strawberry, coco peat and fertilizers. The planned greenhouse will prolong the harvest period for strawberries.

The new **mushroom** growing plant will be constructed near the current plants by doubling the production capacities. Furthermore, a hangar is to be constructed near the mushroom growing plants covering total area of 40x12 sqm.

The new **tomato** growing greenhouse will be constructed adjacent to the existing facilities by significantly increasing the productivity. Note that special lamps are to be installed in the old and new greenhouses to ensure extra higher yield of 25-30%.

**\* Note that cash inflows generated from the operational activity are to be invested in the business: c. USD 2.7mln**

**Estimated Investments Breakdown**

Item	Total, USD'mln	BIGA	EBRD
Strawberry - New	12.2	1.7	8.3
Mushroom - New	4.2	0	4.2
Tomato - New	2.7	0	2.7
Hangar Construction	0.2	0	0.2
Lamps -Tomato	0.3	0	0.3
Plants	0.3	0	0.3
<b>Total*</b>	<b>19.9</b>	<b>1.7</b>	<b>16</b>

**Comments on Investments**

After implementation of subject business plan the Company will have:

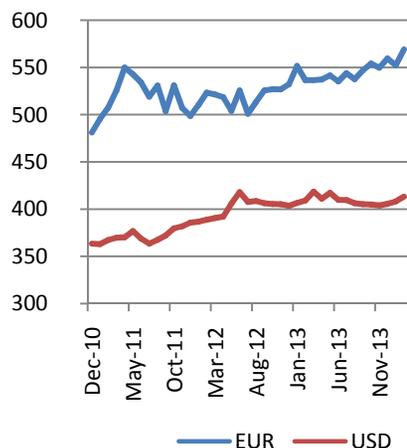
- 5,760 sqm mushroom growing area with production capacity of 4tn mushroom daily;
- 1,250 plants of strawberry with average annual 0,85 kg yield per plant (existing open area 350,000+new open area 150,000+new greenhouse 750,000);
- 20,000 sqm tomato growing area with the following productivity:
  - (i) Cherry -30 kg per sqm
  - (ii) Beefstick-50 kg per sqm

# 8

## Financial Plan



**To make the financial analysis more clear the following main assumptions are to be considered.**



▪ **The Financial Model contains information about the yield and total producing areas.**

**Main Assumptions for Projections**

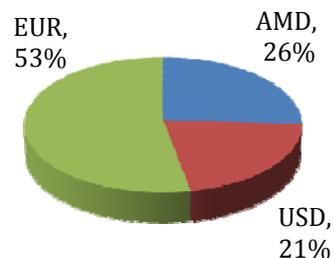
- ❑ Depreciation is calculated on a straight-line basis.
- ❑ The following terms are used in amortization calculations:
  - ✓ Land – 20 years
  - ✓ Buildings & Property – 20 years
  - ✓ Equipments - 10 years
  - ✓ Other Assets – 14 years
- ❑ Currency Exchanges Rate used in calculations are:
  - ✓ USD/AMD = 415
  - ✓ EUR/USD= 1.39
- ❑ Sales projections are calculated considering local and export prices.
- ❑ COGS for each product was calculated to make realistic calculations and projections.
- ❑ Payroll calculations are based on the number of months each position works annually.
- ❑ VAT is not included in the Model considering the fact that VAT received is always less that VAT paid ( the Company is importing materials with VAT and get VAT back as an exporter)

**Financial Model – Content**

- Assumptions
- Growing Area / Number of Plants
- Productivity per season
- Sales per market , kg
- Prices per market, USD
- Sales USD
- Input per kg of crop
- Annual per kg of yield cost calculation
- COGS
- Direct Materials and Inputs Calculations per kg
- Payroll
- Assets
- Loans
- Profit and Loss Statement
- Cash Flow Statement
- Balance Sheet

**Both companies have been granted with loans by commercial banks and are properly served in line with repayment schedules.**

**Outstanding Portfolio Structure by Currencies**

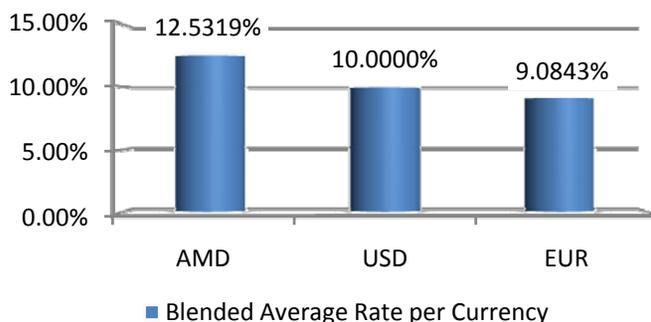


**Main Intentions**

Currently the Company is looking for a strategic partner financial institution to attract financial resources for the expansion of the business.  
 EBRD is considered as one of the potential partners.  
 Mezzanine financing may be applied to successfully implement the subject expansion plan.  
 The financial resources anticipated to be attracted are to be fully utilized for business expansion purposes.

**Actual Loan Service Highlights**

Currency	Initial Balance	Outstanding	Repaid Portion
AMD	800,000,000	532,567,458	267,432,542
USD	1,200,000	1,049,115	150,885
EUR	2,695,000	1,898,095	796,905



**Credit History & Loan Portfolio**

The Company has attracted loan facilities from commercial banks in Armenia – Ameria Bank and Ineco Bank.  
 Loan exposures of both companies have been historically served in line with the repayment schedules with no delays in terms of repayment schedules.  
 The first loan was granted in 2010.  
 The existing loans of both companies were adjusted with exchange rates to get the whole portfolio in USD.  
 CBA rates were used for calculations.

**Financial Requirements**

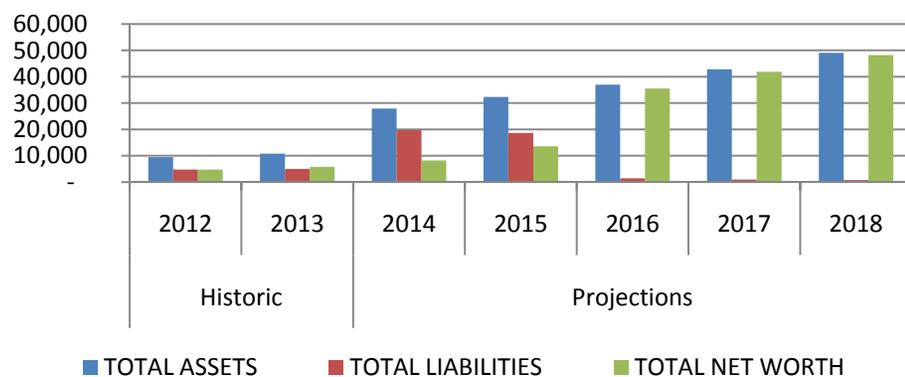
Item	m/u	Value
Amount	USD	16,000,000
AIR	%	6%
Term	Months	24

Note:  
 \* Loan of 16mln. is considered to be converted into equity in 2016. Only interest will be paid during 2 years prior to conversion.

Year	Loan Received, USD
2010	240,964
2011	3,894,578
2012	1,544,277
2013	1,181,928

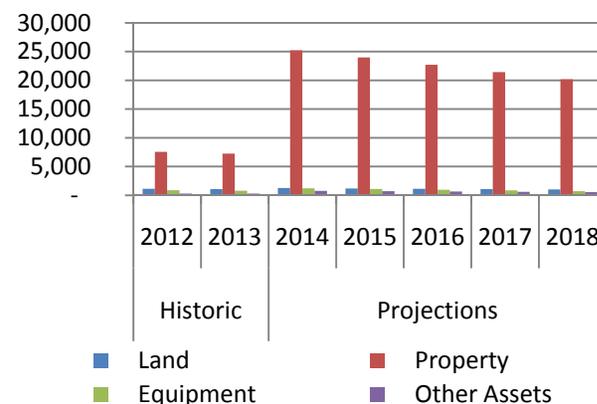
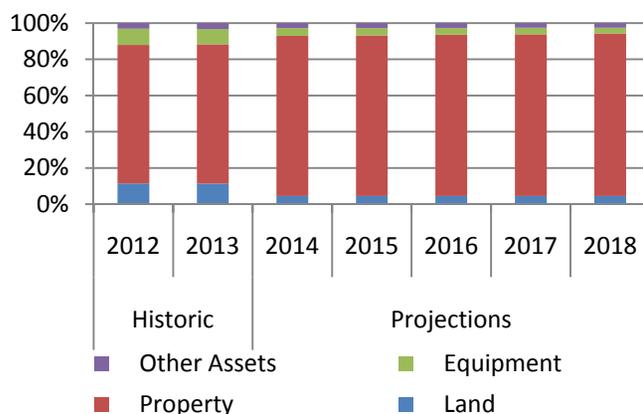
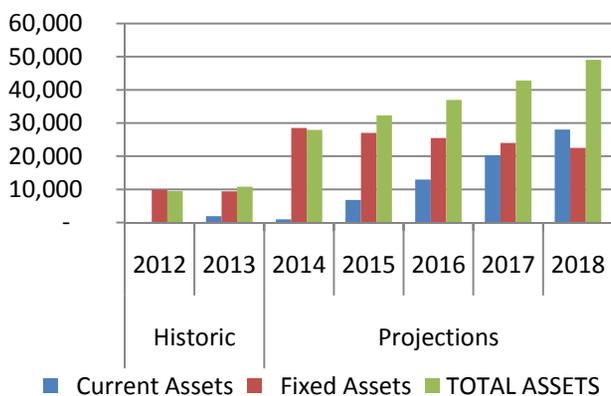
Detailed information is presented in the Financial Model, being part of this business plan.

Item	Historic		Projections				
	2012	2013	2014	2015	2016	2017	2018
<b>ASSETS</b>							
Total Current Assets	180	1,903	938	6,806	12,959	20,312	28,036
Fixed Assets	9,874	9,424	28,507	27,005	25,503	24,001	22,500
(Less) Accumulated Depreciation	- 544	- 517	- 1,502	- 1,502	- 1,502	- 1,502	- 1,502
Net Fixed Assets	9,330	8,907	27,005	25,503	24,001	22,500	20,998
<b>TOTAL ASSETS</b>	<b>9,510</b>	<b>10,810</b>	<b>27,943</b>	<b>32,309</b>	<b>36,961</b>	<b>42,812</b>	<b>49,034</b>
<b>LIABILITIES</b>							
Total Current Liabilities	180	330	367	780	782	798	798
Total Long-Term Liabilities	4,566	4,664	19,351	17,911	669	157	-
<b>TOTAL LIABILITIES</b>	<b>4,746</b>	<b>4,993</b>	<b>19,718</b>	<b>18,690</b>	<b>1,451</b>	<b>954</b>	<b>798</b>
<b>NET WORTH</b>							
Owners' Investment	5,012	5,106	6,806	6,806	6,806	6,806	6,806
Share Capital	0	0	0	0	16,000	16,000	16,000
Retained Earnings	- 249	710	1,418	6,812	12,703	19,051	25,429
<b>TOTAL NET WORTH</b>	<b>4,763</b>	<b>5,816</b>	<b>8,225</b>	<b>13,619</b>	<b>35,509</b>	<b>41,857</b>	<b>48,235</b>

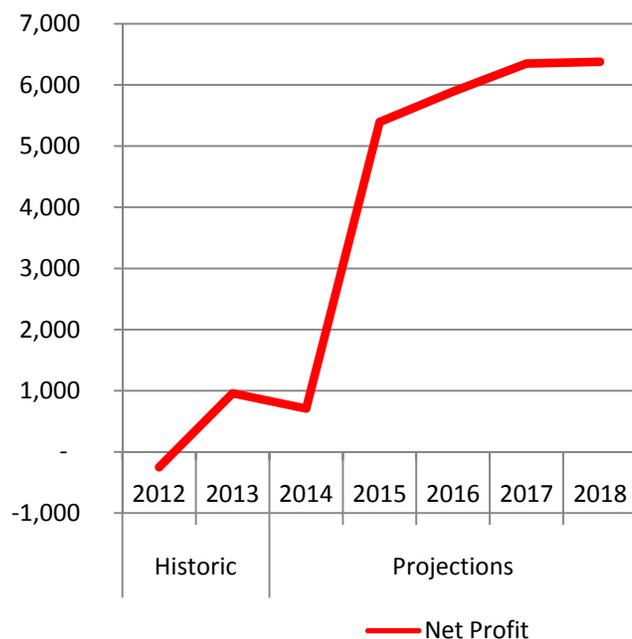


Detailed information is presented in the Financial Model, being part of this business plan.

Item	Historic		Projections				
	2012	2013	2014	2015	2016	2017	2018
<b>ASSETS</b>							
<b>Current Assets</b>							
Cash	71	1,575	550	6,006	12,157	19,494	27,217
Accounts Receivable	36	66	73	156	156	160	160
Inventory	73	262	314	644	646	658	659
<b>Total Current Assets</b>	180	1,903	938	6,806	12,959	20,312	28,036
<b>Fixed Assets</b>							
Land	1,128	1,072	1,268	1,205	1,141	1,078	1,015
Property	7,559	7,251	25,239	23,977	22,715	21,453	20,191
Equipment	884	796	1,216	1,095	973	851	730
Other Assets	303	305	784	729	674	619	564
Subtotal	9,874	9,424	28,507	27,005	25,503	24,001	22,500
(Less) Accumulated Depreciation	- 544	- 517	- 1,502	- 1,502	- 1,502	- 1,502	- 1,502
<b>Net Fixed Assets</b>	9,330	8,907	27,005	25,503	24,001	22,500	20,998
<b>TOTAL ASSETS</b>	9,510	10,810	27,943	32,309	36,961	42,812	49,034

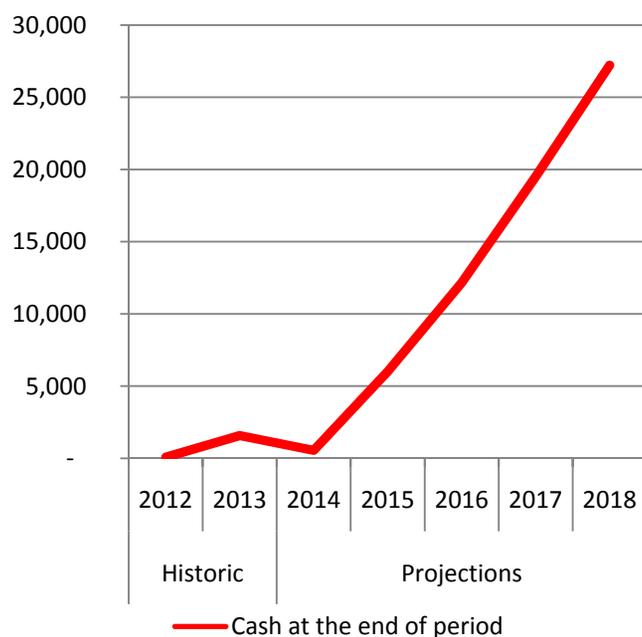


Detailed information is presented in the Financial Model, being part of this business plan.



Item	Historic		Projections				
	2012	2013	2014	2015	2016	2017	2018
<b>Sales Revenue</b>							
Strawberry	175	1,225	1,750	6,460	6,460	6,460	6,460
Raspberry	-	180	180	180	180	180	180
Tomato - Standard	352	540	390	975	975	975	975
Tomato - Cherry	360	375	1,350	2,700	2,700	2,700	2,700
Mushroom	1,560	2,880	2,880	5,760	5,760	5,760	5,760
<b>Total Sales</b>	<b>2,447</b>	<b>5,200</b>	<b>6,550</b>	<b>16,075</b>	<b>16,075</b>	<b>16,075</b>	<b>16,075</b>
<b>COGS</b>							
Direct materials and inputs	1,436	2,653	2,796	6,040	6,040	6,040	6,040
Strawberry	190	176	117	294	294	294	294
Raspberry	59	59	143	285	285	285	285
Tomato - Standard	40	277	396	1,203	1,203	1,203	1,203
Tomato - Cherry	-	23	23	23	23	23	23
Mushroom	1,147	2,117	2,117	4,235	4,235	4,235	4,235
Direct labor	254	254	343	429	429	429	429
Strawberry & Raspberry	139	139	192	239	239	239	239
Tomato - Standard and Cherry	40	40	52	65	65	65	65
Mushroom	75	75	100	125	125	125	125
<b>Total COGS</b>	<b>1,690</b>	<b>2,907</b>	<b>3,140</b>	<b>6,469</b>	<b>6,469</b>	<b>6,469</b>	<b>6,469</b>
<b>Gross Profit</b>	<b>757</b>	<b>2,293</b>	<b>3,410</b>	<b>9,606</b>	<b>9,606</b>	<b>9,606</b>	<b>9,606</b>
SGA expenses	93	110	125	125	125	125	125
<b>EBITDA</b>	<b>664</b>	<b>2,183</b>	<b>3,285</b>	<b>9,481</b>	<b>9,481</b>	<b>9,481</b>	<b>9,481</b>
Interest Commercial banks	369	466	418	277	136	44	7
Interest EBRD	-	-	480	960	480	-	-
Depreciation	544	517	1,502	1,502	1,502	1,502	1,502
<b>EBT</b>	<b>- 249</b>	<b>1,199</b>	<b>885</b>	<b>6,742</b>	<b>7,363</b>	<b>7,935</b>	<b>7,973</b>
Taxes	-	240	177	1,348	1,473	1,587	1,595
<b>Net Profit</b>	<b>- 249</b>	<b>959</b>	<b>708</b>	<b>5,394</b>	<b>5,891</b>	<b>6,348</b>	<b>6,378</b>

Detailed information is presented in the Financial Model, being part of this business plan.



Item	Historic		Projections				
	2012	2013	2014	2015	2016	2017	2018
Cash at beginning of period	-	71	1,575	550	6,006	12,157	19,494
Cash flow from operating activities							
Cash receipts from customers	2,447	5,200	6,550	16,075	16,075	16,075	16,075
Cash paid to suppliers and staff	-1,783	-3,017	-3,265	-6,594	-6,594	-6,594	-6,594
Net cash from operating activities	664	2,183	3,285	9,481	9,481	9,481	9,481
Cash flows from investing activities							
Land	-	-	-250	-	-	-	-
Property	-2,452	-71	-18,350	-	-	-	-
Equipment	-420	-	-500	-	-	-	-
Plant	-77	-23	-500	-	-	-	-
Net cash used in investing activities	-2,948	-94	-19,600	-	-	-	-
Cash flows from financing activities							
Investment from Shareholders in WC	2,000	-	1,700	-	-	-	-
Proceeds from issue of share capital	-	-	-	-	16,000	-	-
Proceeds from EBRD Loan	-	-	16,000	-	-	-	-
Converting of EBRD loan into equity	-	-	-	-	-16,000	-	-
Payment of interest on EBRD Loan	-	-	-480	-960	-480	-	-
Proceeds from Bank loans	1,544	1,192	-	-	-	-	-
Payment of long-term borrowings	-820	-1,070	-1,335	-1,440	-1,241	-513	-157
Interests on long-term borrowings	-369	-466	-418	-277	-136	-44	-7
Payment to budget	-	-240	-177	-1,348	-1,473	-1,587	-1,595
Net cash used in financing activities	2,355	-585	15,290	-4,025	-3,330	-2,144	-1,758
Net cash flow	71	1,504	-1,025	5,456	6,151	7,337	7,723
Cash at the end of period	71	1,575	550	6,006	12,157	19,494	27,217

# 9

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## Risk Analysis

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**The Company pays proper attention to the risks associated with the business and permanently ensures proper mitigation mechanisms and actions to be in place.**

**Risk Matrix**

- Given the diversified nature of the business including local and foreign markets, as well as permanent consultancies and advisory provided by their strategic partners the risks can be considered mitigated.
- The business owners are actively engaged in strategic management.
- No key-man risk exists for the business.

<b>Risk Type</b>	<b>Level</b>	<b>Description</b>
General economic environment	Medium	Given that the only strawberry fields are in open-air area, which is to be mitigated by greenhouse construction.
Political / regulatory	Low	The whole business is not related to political persons and operates in its normal way regardless the political changes in Armenia.
Changes in public opinion	Low	The Company’s products have good reputation in the market.
Buyer Risk	Low	The Company’s products are being realized by both corporate and individual clients located in local and foreign markets.
Supplier Risk	Low	The Company has long lasting and stable relationship with the suppliers of equipment, seeds, technological assistance, etc.. Each production facility is equipped with own substation to ensure heating in case of interruption of gas and electricity supply. Special water reservoirs are located near the fields to ensure permanent water supply.
Technological	Low	The business processes are being permanently monitored and controlled by outstanding experts in the fields, including visits to fields and production premises, control over the quality, etc.
Law suits	Low	There are no legislative restrictions and barriers to operate in the subject area. The Company has proper documentation regarding exportation processes.
Staffing	Medium	The Company’s management highly emphasizes staff management issues and motivation system to ensure low level of staff fluctuation. Mainly urban population is being hired to work.



## The subject business plan is prepared by Shirakamut Consulting Company.

### About Shirakamut Consulting

SHIRAKAMUT Consulting Company operates in consulting market since 2008. The company is specialized in the sphere of business and strategic planning, as well as offers such services like: tax and management accounting, loan management and consulting, investment planning and financial analysis.

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