

I-CEE INC.

Business Plan



Vibro-I

I-CEE INC.

Bilkent University



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1 EXECUTIVE SUMMARY

I-CEE is a company that was founded in September 2007 with issued capital of 218,500.00 \$. This Business Plan sets our strategic, operating, marketing and financial objectives.

1.1 The Company

The founders of the company are İlker Danyal Kanatlı (VP of Production Dept.), Oğuzhan Aras Bulut (VP of Production Planning Dept.), Esra Dokuzoğlu (VP of Quality&Assurances Dept.), Berk Korkut (VP of Research&Development Dept.), Ekin Kartal (VP of Finance&Accounting Dept.) and Ceren Hasağebi (VP of Design Dept.). The Vice President of the companies is a senior student at Bilkent University. Vice Presidents of Production and R&D are members of Electric and Electronic Engineering Faculty, the Vice Presidents of Production Planning and Finance&Accounting Departments are members of Industry Engineering Faculty, Vice Presidents of Quality&Assurances and Design Departments are members of Computer Engineering Department.

1.2 The Product

VIBRO-I aims to rehabilitate the psychology of the visually impaired by eliminating the need for the cane. Instead, VIBRO-I just provides an inner belt (worn under clothes) and wrist bands which are the only visible component of the product. VIBRO-I enables visually impaired to view the world as if they do not have a vision defect by vanishing the cane!

VIBRO-I consists of two wrist bands which both have vibrator devices on them and a waist belt. Vibration devices on one band denote all directions according to signals received from the image processing device (a mini camera) fixed on the belt. Devices on the other band vibrate



according to signals received from sensors (fixed on the belt) when obstacles encountered. The product gives object recognition, object distance, object direction, and independence.

1.3 Corporate Strategy:

In order run the business, we have forecasted our estimated sales. According to these forecasts, we have observed that our company would be successful with respect to the following corporate strategies. First of all, the company members have to be highly motivated and have team spirit. The customer satisfaction has a big importance determined by both quality control and after sales departments.

1.4 Financial Projections:

The cash flow is seen to turn positive by year 2008. Operating expenses stay approximately the same level while profitability is increasing. Company will finance its investment costs in a balanced loan pay back for 5 years.

2 BASIC CORPORATE DATA

Name of the company	I-CEE Inc.
Capital	Authorized: 218,500.00 \$
Registered Office	Konak Izmir, Beşiktaş İstanbul
Head Office	Ostim Ankara



2.1 Vision:

- I-CEE primarily aims to help visually impaired people to move about independently,
- I-CEE values human psychology: VIBRO-I is specially designed to provide a new vision experience without the cane for visually handicapping people.

2.2 Mission:

- I-CEE aims to maximize the customer satisfaction by providing high quality and low prices,
- I-CEE aims to fulfill responsibilities to humanity and environment

2.3 Company Values:

I-CEE:

- cares for customer rights,
- highly values public trust and customer feedback,
- is open to new ideas throughout the development,
- operates within strict legal and ethical rules,
- relies on human resources,
- provides a democratic arena where employees share ideas,
- improves teamwork within the organization.

3. ORGANIZATION AND MANAGEMENT

The Organizational Chart and organization of the company can be seen at Annex B.

3.1. Chief Executive Officer:

Chief Executive Officer is responsible for all operations that are made in the company. He checks all stages of production and marketing. İlker Kanatlı rules the company as the chief. He is the last man who authorizes to confirm any operations or decisions. He is also eligible



to confirm interior decisions. Chief Executive Officer is also charged to be the president of board of directors. This is the top stage of the company and this job has a vital importance.

3.2. Chief Operations Officer:

The chief operations officer is responsible for the production planning, production, research-development and design departments. In our company Esra Dokuzoğlu is the chief operations officer so she is the bridge between these departments and the chief executive officer.

3.3. Chief Financial Officer

Oğuzhan Aras Bulut is the chief financial officer of our company and he is bounded to the CEO as well. He has the responsibility of the quality and assurances, marketing and sales and finance and accounting departments.

3.4. Production Planning Department

The Production Planning Department is headed by Oğuzhan Aras Bulut. He is responsible of calculating the amount of production, he estimates forecast. He is bounded to COO.

3.5. Production Department

Head of Production Department is İlker Kanatlı and he is bounded to COO. He has two sections under his organization; hardware and software parts of the product. These parts need to be improved separately but also they need to be connected each other. Therefore the duty of him is to check the software and hardware productions step by step, and make them not to loose the connection. In other words he will be the bridge between these works.

3.6. Research and Development Department

The Research and Development Department of our company is headed by Berk Korkut. He is the one who searches about the developing technologies about both software and hardware to



check whether they can be applicable or not for the product to make it better if possible.

Therefore he is also responsible of following the whole project in every step. His department is bounded to COO.

3.7. Design Department

Ceren Hasaebi is the vice president of Design Department and she is bounded to COO as well. She is responsible of the design of both hardware and software parts of the Project. As a computer engineer she is the heart of the software design, also she checks the hardware design that is going to be done by electrical and electronics engineers.

3.8. Quality and Assurances Department

Head of the Quality and Assurances Department is Esra Dokuzođlu. She has the responsibility of providing the quality management system. She necessarily checks the whole system in every step because the important thing is to be sure about the quality from the supplying materials till the final product. She is bounded to CFO.

3.9. Marketing and Sales Department

İlker Kanatlı is in charge as vice president of Marketing& Sales Department which is bounded to CFO. His department's general duty is to reach present and potential consumers, make new market researches, recognize new tends and take feedback to make essential changes in products, combine these studies with sales operations and promotions, create new market strategies to increase the market ratio and profit. There are two sections in this department; marketing and after sale services in which has two more sections; software services and hardware services. Vice President of this department establishes coordination between these sections and checks all studies out.



3.10. Finance and Accounting Department

Our Finance and Accounting department is headed by Ekin Kartal. She has two sections under her organization. One of these sections is Financial Section which is responsible for financial studies; analysis, reports, feedbacks of projects and investment analysis. The other section is accounting. Accounting section prepares legitimate reports for Capital Markets Board of Turkey related ministries and other related institutions. She is bounded to CFO as well.

4. COMPANY SUMMARY:

The Vibro-I is newcomer to the market of the visually impaired people helper. I-CEE is in the start-up position. The team is composed of six members who are Ilker Danyal Kanatli and Berk Korkut, students of electrical and electronics department, Esra Dokuzoglu and Ceren Hasancebi, students of computer engineering department, Oguzhan Aras Bulut and Ekin Kartal, students of industrial engineering department.

4.1. Company Ownership:

Bilkent Students Ilker Danyal Kanatli, Esra Dokuzoğlu, Ekin Kartal, Oğuzhan Aras Bulut, Berk Korkut and Ceren Hasancebi own I-CEE INC.

4.1.1. Start-up Company:

Start-up cost of the company is given in table 1. According to this table, the total investment cost of the company is the sum of land, current assets and capital assets, which makes 218,500.00 \$. Total land cost consists of the Head Office in Ankara, two offices in Istanbul and Izmir and factory in Ankara; and it is 73,000.00 \$. Current assets are electricity, waterworks, telephone and Internet connections and so on; which makes 28,500.00 \$. Capital assets consist of office equipments, software system and factory equipments that is computed to be 117,000.00 \$.

**Table: Start-up (Normal)****Start-up**

Requirements

Start-up Expenses

Land	\$73,000.00
Stationery, forms	\$0.00
Total Start-up Expenses	\$73,000.00

Start-up Assets Needed

Cash Balance on Starting Date	\$0.00
Start-up Inventory	\$0.00
Other Current Assets	\$28,500.00
Total Current Assets	\$28,500.00

Capital Assets	\$117,000.00
Total Assets	\$145,500.00
Total Requirements	\$218,500.00

Funding

Investment



Personal Investment	\$0.00
Venture Capital	\$218,500.00
Total Investment	\$218,500.00

Current Liabilities

Accounts Payable	\$0.00
Current Borrowing	\$0.00
Other Current Liabilities	\$0.00
Current Liabilities	\$0.00

Long Term Liabilities	\$0.00
Total Liabilities	\$0.00

Loss at Start-up	\$0.00
Total Capital	\$218,500.00
Total Capital and Liabilities	\$218,500.00

4.2. Company Location:

The I-CEE Company is going to be built in Ostim. There are energy and water resources in Ostim. Raw materials, transportation network and the market is not going to be far from the factory. Labor supply and climate conditions are in good levels in Ostim. There are cheap task force and cheap land. Consequently, production cost can be minimized as far as possible in that location.

Besides the factory, the Head Office is also going to be in Ankara. There are going to be two other offices; one in Istanbul and the other in Izmir. The reason of the offices is to be able to



reach the customers' needs more quickly and have organizations of sales in those cities. The Head Office in Ankara is where all networks are going to be connected. The office is going to be 70 m² and the factory is going to be 280 m². Istanbul and Izmir Offices are going to be used for sales and distribution of the product. Each office is going to be 100 m².

4.3. Product and Service:

VIBRO-I enables visually impaired to view the world as if they do not have a vision defect.

4.3.1. Product Descriptions:

VIBRO-I consists of a wrist band on which there are vibrator devices denoting all directions according to the signals received from the image processing device (a micro camera) fixed on the waist-belt.

There are two sensors and a micro camera which are fixed on a belt.

4.3.1.1. Process of Camera:

The micro camera is used for identifying the objects in the environment.

It takes the frames and sends them to the processor board. Here the C++ interface determines the objects in the frame. (predefined 4 basic objects like body, car, stairs door.)

4.3.1.2. Process of Sensor:

The aim of sensor is to detect the place of every objects and the distance of these objects to the user.

4.3.1.3. Process of Processor Board:

There is a Linux board in order to process the images comes from cameras.

The frames are processed by the necessary codes on C++ then saved on a SD card that can plug on the Linux board. The processed information on the board will be sent to the correct vibration device.



4.3.1.4. Process of Vibration:

4.3.1.4.1. Left-Hand Wrist-Band:

3 vibration devices are located on a Wrist-Band.

- One at the front
- One at the right
- One at the left

Each vibration device vibrates according to the place of the obstacle.

4.3.1.4.2. Right-Hand Wrist-Band:

4 vibration devices are located for 4 pre-defined objects (car, human body, stairs, door).

- One at the front
- One at the right
- One at the left
- One at the back

Each vibration device is objected to vibrate for each pre-defined different objects.

4.3.2. Hardware of the System:

- Sensors
- Micro Camera
- Board Computer
- Vibration devices
- Belt
- Wristbands

The *sensors* and the camera work separately but simultaneously. Sensors are for detecting the obstacles around the environment and transfer the data to the vibration devices which are fixed



on the wristbands. The data includes the distance of an obstacle to the sensors. It is transferred to the vibration devices with variable current values. This variable current is zero if the sensors do not sense any obstacle. When the sensors detect any obstacle, the current begins to increase with the change of the distance between the user and the obstacle. *Vibration devices* are sensitive to the current received. If the current increases, the vibration amount of the devices will increase too. This will help to the user to determine the distance of the obstacle to him or her.

The *micro camera* helps the user to determine what the obstacles are around himself or herself. It sends the video frames to the *board computer* and the frames are processed in the processor by Digital Image Processing (DIP) and with the previously written C++ code, the predefined objects are searched in the video frames. If one or more objects are founded in any frames, the signals are sent to the vibration devices. On the wristband there are 4 vibration devices. Each device is defined for one exact object. Therefore if any object is detected in a frame, this will vibrate the related *vibration device*. In that way, user can determine if any obstacle is around him or her and what this object is.

4.3.3. Software of the System:

Our system will use C++ or Matlab for digital image processing. We need to scan every frame of the video to detect the predefined objects. The frames will be scanned by C++ or Matlab by the processor on the board computer and will send to the vibration devices if a predefined object is detected.



4.3.4. Service Description:

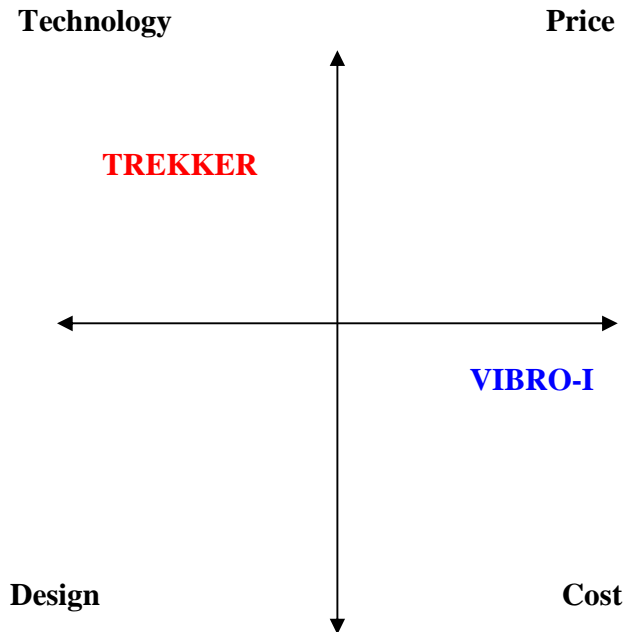
The Head Office in Ankara and the other two offices in Istanbul and Izmir provide the distribution of Vibro-I. Also, medical shops, hypermarkets and drugstores provide the service of Vibro-I. Furthermore, the foundations are going to be mediators if the agreement is satisfied.

5. MARKET AND COMPETITIVE ANALYSIS

5.1. Industry and Product Classification:

5.1.1 Industry Classification:

The market is composed of four dimensions. The products can be classified as being low pricey, well designed, technological and costly advantage. As a product Vibro-I has low prices and low cost. Instead of having high cost and high price due to high technology, we give importance to the cost differentiation.



The product class is in the electric and electronic sector. This sector is divided into some subtitles, which contain medical electronic sector that our product belongs to. Furthermore, according to the agreements with 6 Nokta Körler Derneği, Ophthalmology Association and



health magazines will be source of advertisement. By installing the advertisement of the firms to the receivers, the investors will make money out this. Therefore, it will make advantage according to the other competitor.

5.1.2. Product Classification:

Technology, price, cost and design are the four basic units that make up the market. The property of I-CEE products is to have less manufacturing cost and less price for the customers.

5.2. Market Segmentation:

There are about 412.000 blind people in Turkey. As a company, for the first segment in which cables are used to combine the belt and the wristband, our aim is to address to the customers, who have middle, upper and higher income levels. We have assumed that middle income blinds may also be willing to get our product since it has a positive psychological effect due to the fact that this item prevents the blind people to be able to be free of canes and do not allow others to understand the blindness. It is an important issue since everybody would feel sorry for blind people however they do not need any kind of pity.

For the second segment, the customer income levels change a little bit; we address only for the upper and higher income level customers because the price increases much more than the product of the first segment, due to the increase of the cost of the item to our company. The main issue of the second segment is that the cable is going to disappear, whenever the wireless system takes place of it. The advantage of this is to make the customers more comfortable since they will not have to carry the cable, and doing motions with a cable that connects a belt and a wristband may not be so easy; at least wireless technology will be much easier. Also, wireless system simplifies the data flow much more than a cable. Finally, for the cameras, 75 objects can be defined by using Matlab or C++ . By this way, the camera can identify the



specific objects and transfers them to the headphones. The person is going to hear it on the headphone. If we consider it with an example, the blind person will know that there is a specific object in a specific distance by hearing from the headphone.

5.2.1. Market Needs:

The most important issues that build up market needs consist of four elements, which are low price, high quality, and wide range of service network and availability of products. As a company, our aim is to meet these needs as much as possible. Low price need is going to be satisfied since especially the first segment product has a low cost. The Quality Control Department checks quality and products that do not satisfy the required qualification are going to be dropped. Service network and availability issues are going to be provided by connection of three offices, of which the Head one is in Ankara and the others in Istanbul and Izmir.

5.2.2 Market Trends:

The life styles of disabled people are not the same as before. They have their own needs and desires. They do not want to be felt differently and the most important thing is that they want to live like a normal person. So, our product is going to provide them safety and comfort by noticing the objects around. Warning and safety system is going to be done by sensors. A lot of organizations and events are done for the disabled people, which mean our market is huge. All above stated conditions mean that we are going to be able to satisfy both the market needs and the market trends.

5.3. Industry Analysis:

As an industrial approach, our aim is to minimize the danger of the environmental factors and the psychological effects due to blindness and deafness in the second segment, whereas maximizing the morale and safety of the customers. By alerting the customers for the objects



around the danger is going to be minimized. The product is going to make the customers get rid of the cane, so the effect of thinking than people around know that the person has a disability is going to be also minimized. Being able to be much more comfortable and less necessity of the help of people around will increase both morale and safety of our customers.

5.4. Sector Partners:

5.4.1. Participants in Industry:

Our product is going to be sold in below stated participants:

- Medical shops
- Hypermarkets (such as Real)
- Drugstores

5.4.2. Distribution Partners:

The product is for the use of blind people in order to save them from the cane and let them be aware of the objects around. Consequently, blind people are the customers of our product. In order to reach them, we will use the foundations as distribution partners. These foundations such as Alti Nokta Korler Dernegi will help us reach customers and help customers reach us.

5.4.3. Competitors:

According to our research about existing competition in the world about blinds, we have only one competitor which is GPS Trekker. It integrates off-the-shelf hardware for GPS input with voice output to provide instructions and optional voice input for entering notes. However, the real advantages of Trekker are its software features and adaptation to meet the needs of the visually impaired.

Main features of Trekker are voice-information control features are user-defined location

¹ <http://www.nanopac.com/GPS%20Trekker.htm>



marks, route planning and recording, access to GPS status information, flexibility in information presentation and guidance to allow for various levels of users (beginner, normal, advanced) and familiarity with a given environment.

5.5 Competitive Advantages:

Our research indicates that the Vibro-I has three main competitive advantages. These are low cost advantage, low price advantage and high advantage. The unit cost for product is 340.60 \$ which provides cost advantage toward our competitor. Secondly the average price for Vibro-I is 371.00 \$, which makes the company achieve the price differentiation in the market. Furthermore, we differentiate ourselves by high technology. We are planning to manufacture specialized products, such as loading GPS and using wireless connection, according to customers' financial status.

6. BUSINESS STRATEGY

6.1. Marketing and Sales Department Strategies:

6.1.1. Product Strategy:

Vibro-I has low cost, it allows low price for its customers. The product technology will increase by the development of the technology so we cannot say that the product has high technology at the moment. Since the product consists of a belt and a wrist band, special designs can be made according to orders. When GPS technology starts to be fully used in the country, we can have a competition with GPS Trekker, the only competitor in the world.

6.1.2. Price Strategy:

The product price is as low as we can hold due to the facts stated below:

- The customers are visually impaired people, so their income levels are much lower than the income levels of others.



- The company uses market-pull strategy that means we offer the product to the consumers, before their demand.
- 371.00 \$ price

6.1.3. Distribution Strategies:

The company I-CEE is going to make agreements with two types of costumers. The first target costumers have middle income levels. Secondly we will focus on upper and higher income leveled visually impaired people, who will have a chance of using the more technological item.

6.1.4. Promotion Strategy:

The product is firstly going to be introduced to communities. These communities contain Altı Nokta Korler Derneği and Ophthalmology Association. We are planning to reach to our final consumers by these communities. We are also planning to make advertisements in health magazines.

6.2. Financial Strategies:

Financial and Accounting Department deals with the financial strategies in order to run the business. The department is therefore responsible of balance flow of payments and cash flows, while doing marketing jobs. The first important thing to achieve is to pay the loans back. Then solutions for financing company operations are going to be found. Later on, cost reducing is going to be done since it is essential to make analysis for all activities, profitable or not. Also, it is going to be found out whether the company may have a lower level cost or not by cost reducing. All above stated analysis are going to be reported and the reports are going to be submitted to the related ranks.



6.3. Administration Strategies:

The department deals with personnel hiring newcomers. Also, it provides education programs for both newcomer personal and current working personnel. The program allows personnel to increase employment power in order to increase productivity. It is also responsible of increasing motivation of the employees. Finally, finding out better strategies in order to increase productivity, recovering delivering problems and minimizing distribution costs are the duties of this department.

6.4. Software Strategies:

The software department controls the hiring of software engineers in order to hire enough experienced engineers in related programs. The engineers are then going to be transferred to R&D department, since the product maintenance is going to be mostly done on the hardware system. The improvements of the current product are going to be done by the R&D department. Related researches are going to be made. It is also going to work on the up coming projects of the company.

6.5. Production Strategies:

Our factory's capacity has been decided based on the market research. First year's (2007) market share is thought as 4000 units. Therefore, the capacity will be 333.3 units/month or in other words 16 units/day. This amount can be met by only one shift per day (eight hours). Moreover, two assemble lines will be sufficient at the beginning stages of production. These lines will assemble camera and sensors to belt, and vibration devices to wrist band. Capability of the machines to produce both types of products makes the process flexible. Schedule will be made with respect to the total amount that we want to produce. Since our plan is to produce



4000 products first year, the assemble line must produce products for 20 days in a month. The sequence may be changed with respect to the unexpected events or demand. Our workforce includes 5 workers per line and all the workers must be skilled and experienced since our tasks are all about electronics.

Quality Control Department is one of the most important departments of the firm. The quality of the product has to be as high as possible due to the fact that it is a product for the safety of our customers. The required tests are going to be done on the test machines by employees who have gained enough skills on their jobs. There are two test passing requirements. The first one is for the products to meet the design requirements. The second one is whether the product has enough performance. Samples from specific amounts of finished products are going to be taken and tests are going to be applied on these samples.

The products are going to be manufactured on our own, which means we are not going to use outsourcing. There is not going to be a complex layout, and all the process is going to be done in the same building.

Inventory levels will be low for both raw materials and finished goods. They will be stored in a room inside the building. Providing sufficient supplier linkages and implementing just-in-time techniques will be helpful to decrease the number of work-in-process inventory, set up time, holding and set-up costs, and increase the efficiency of the line.

7. SALES FORECAST

Turkish population has an average growth rate of %2.26. Its reflections can be seen in population of visually impaired people. Researches that were made by Republic of Turkey, Prime Ministry, management of impaired people by the end of May, 2006, total amount visually impaired people is 412.312. Our target costumer is middle, upper and higher income



leveled visually handicapping people. Again, according to same research, the number of visually impaired people and their social status are given below:

Social Status	Number of Visually Impaired People
Student	21864
Housewife	103845
Retired	65252
Have Income	16734
Not Able to Work	41211
Not Have a Job	12041
Expected to Work	513
Other	150851
Total	412312

16.9% of the visually impaired people are retired, 2.5% have income, 0.2% are expected to work; which approximately makes 19.6% that makes 80.000 people. According to our estimations, we are going to reach to 4000, approximately 1% of the market potential. Our company plans to grow at the same rate of population growth rate, which is approximately 2.3% per year. Also, 63.7% of these people have registered to Social Security Foundation. Two years after the sales, we are planning to deal with this foundation to increase our sale quantity.

7.1. Cost Calculation:

The investment analysis includes both variable and fixed costs for production sections. Wages, salaries and other costs are added to these numbers in order to find cost function of Vibro-I.

² <http://www.ozurluler.gov.tr/arastirma/troailerianaliz.htm>



Marginal cost and after marginality calculations are done. The total cost calculations are calculated with respect to the estimated production capacity numbers and the price is determined according to the total cost calculations.

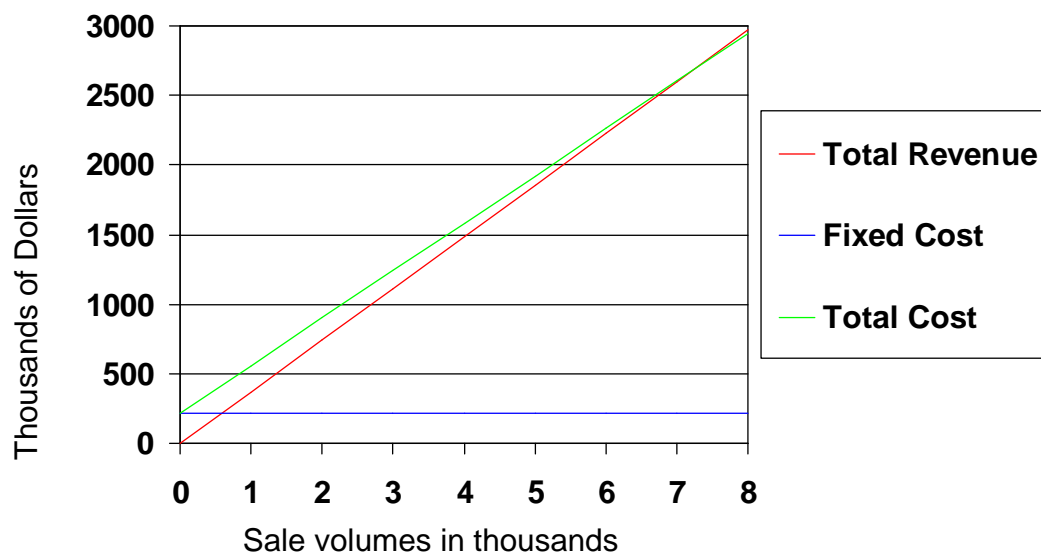
8. FINANCIAL ANALYSIS

8.1. Break Even Analysis:

The break even point is passed by 7188 units, which is given in Break Even Analysis Table. Our variable unit cost is \$340.6, which contains production variable cost, maintenance cost, waged and salaries. Our total fixed cost is \$218.500, which contains production fixed cost, facility and equipment costs.

Break-Even at 7,188 Units

Variable Unit Cost	: 340.6\$	Total Variable Costs	: 2,724,800\$
Fixed Cost	: 218,500\$	Total of All Costs	: 2,943,300\$
Expected Unit Sales	: 4000	Total Revenue	: 2,968,000\$
Price per Unit	: 371\$	Profit	: 24,700\$





8.2. Capital Spending:

We will minimize the capital outlays by using the second hand machines. On the other hand the 280-meter square factory building will be owned in order to decrease the total cost.

The company will run 10 employees at the beginning. Our major operating costs relate to the staffing are at the Table of Staff Cost (full details are in Annex A).

Other Operating Costs:

Table of Operating Expenses Shows the detailed analysis of Operating Expenses. (full details are in Annex A). It includes the total occupancy expenses, total office expenses, total commission expenses, total computer expenses, total marketing and sales expenses, total professional expenses and at last insurance expenses.

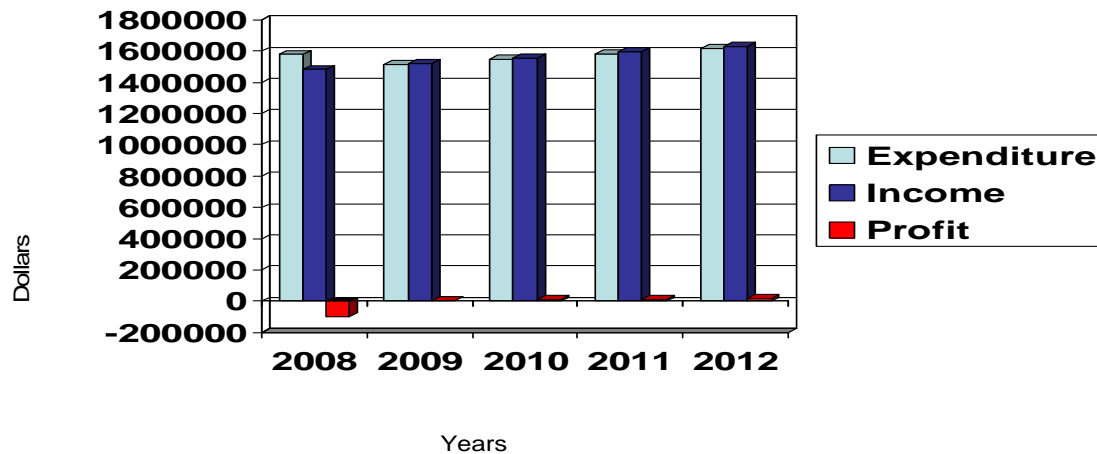
8.3. Profit and Loss Account:

The table below describes the expenditures, incomes and profits annually. However, there is a detailed table explaining can be found in Annex A. Our estimated sales show that the net profit at year 1 will turn out to be a lost, which is \$96,900.00. However it turns out to be positive by the second year. The following profits are 5100, 8340, 11580 and 14820 respectively.

	2007	2008	2009	2010	2011
Expenditure	\$1,580,900.00	\$1,516,000.00	\$1,549,860.00	\$1,583,720.00	\$1,617,580.00
Income	\$1,484,000.00	\$1,521,100.00	\$1,558,200.00	\$1,595,300.00	\$1,632,400.00
Profit	(\$96,900.00)	\$5100.00	\$8,340.00	\$11,580.00	\$14,820.00



Profit Analysis



9. RISK ANALYSIS

9.1.1. SWOT ANALYSIS

9.1. Strengths:

In Turkey, there is no firm that deals with visually impaired people by preventing them to use canes. So, we are going to be strong in the market. Both of the facts that it is against a handicap and it has a low cost determine that the purchasing ratio would be high. The Head Office in Ankara simplifies the distribution among the whole country, whereas the other offices in Izmir and Istanbul simplify the distribution among other countries. Consequently, location is strength by the help of the offices.

9.1.2. Weaknesses:

It is hard to determine the market volume, and so the forecast calculations, due to the fact that our consumers have handicaps, whose exact values are hard to be found. The certain values



about these people are not found and the existing values are resulted only by the registered ones. Consequently, our weakest point is forecast calculations.

9.1.3. Opportunities:

The technology is improving day by day. Turkey also is not so far from the technology, by which we are waiting for the GPS technology to arrive to our country. We mean map of Turkey is not fully recorded in GPS navigation system (except map of Istanbul city) when we refer to GPS technology. This technology provides us to load certain maps in the system. So, whenever the GPS technology is reached, we can use it in order to let our customers reach maps of locations and find locations more easily.

9.1.4. Threats:

The easy imitation of the technology is the most important threat of our company. Because of the fact that we are going to use pull system in our production system, we need to have good advertising processes in order for our product to be sold.

9.2. Critical Success Factors:

In order to keep the business going, there have to be strategies that are owned throughout the departments. To get along with Alti Nokta Korler Dernegi is our critical success point. We have no chance to make advertisements for our customers, so foundations are going to be our helpers to reach our customers. For the above stated reasons, we have to have good relationships with foundations in order to let them make our advertisement.



9.3. Limiting Factors:

Reaching the visually impaired people is one of the limiting factors for us. We know that usual advertising methods such as television or advertisement boards would not be logical to take attention of blind people. The other limiting factor is low income level of these people, and also the thoughts of people in general against blinds such as they cannot work as well as a normal person; so their income levels are not in their hands.

9.4. Alternative Scenarios and Strategies:

The scenarios for the forecasting sales, production and financial are for normal cases. However it is discussed that some factors that are not under control, may affect the sales of our company. In a worst scenario, sales number fail to cover break even numbers, we will reach our consumers directly and sell the product both market participants and consumers.

10. CONCLUSION

The business appears to be realistic and viable by the business plan done in the most sensible analysis under all scenarios. As a firm, we believe that we have identified a new business on a new technology with unique opportunities. The competing product is in an other country, more expensive and has less flexibility due to the cane fact. According to the above stated facts, it is not going to be so hard to have a position in the market. The probable risks are examined and eliminated. These risks may even turn into opportunities.

The business organization is straightened with respect to the needs of the company. This organization allows the company to grow more rapidly. The company is composed of dynamic team spirit with high motivation. Also, the additional hired personnel is chosen according to their performance and experience levels.



The financial projections seem to be profitable and conservative enough. We believe to be able to meet these projections.



3 ANNEX

A.1 PRODUCTION AND SALES

Production and Sales

	2008	2009	2010	2011	2012
Cost and Prices					
Production cost per unit	37	37	37	37	37
Sales prices per uniy (avarage)	371.00	371.00	371.00	371.00	371.00
Inventory Volume					
Opening Stock	0.00	0.00	0.00	0.00	0.00
Addition	0.00	0.00	0.00	0.00	0.00
Reduction	0.00	0.00	0.00	0.00	0.00
Inventory Value					
Opening Stock	0.00	0.00	0.00	0.00	0.00
Additon	0.00	0.00	0.00	0.00	0.00
Reduction	0.00	0.00	0.00	0.00	0.00
Gross Sales	1,484,000.00	1,521,100.00	1,558,200.00	1,595,300.00	1,632,400.00
Cost Of Sales	148,000.00	151,700.00	155,400.00	159,100.00	162,800.00
Gross Profit	1,336,000.00	1,369,300.00	1,402,800.00	1,436,200.00	1,496,600.00
Gross Profit %	0.90	0.90	0.90	0.90	0.91



A.2 CAPITAL OUTLAYS

	2008	2009	2010	2011	2012
CAPITAL OUTLAYS					
Land	73000	0	0	0	0
Office Fittings	109500	0	0	0	0
Office Furniture&Equipment	7500	0	0	0	0
Factory Equipment	13500	0	0	0	0
Computers Ext.	10000	0	0	0	0
Motors Vehicles	5000	0	0	0	0
TOTAL CAPITAL OUTLAYS	218500	0	0	0	0
DEPRECIATION SCHEDULE					
Office Fittings	10950	21900	21900	21900	21900
Office Furniture&Equipment	750	1500	1500	1500	1500
Computers Ext.	1000	2000	2000	2000	2000
Motors Vehicles	500	1000	1000	1000	1000
TOTAL	13200	24600	24600	24600	24600



A.3 STAFF COSTS

Staff Costs						
		Staff Salaries				
		Year 1	Year 2	Year 3	Year 4	Year 5
Staff	Numbers					
General Manager	1	36000	39600	43560	47916	52707
Manager	6	126000	138600	152460	167706	184477
Engineer	5	90000	99000	108900	119790	131769
Accountant	1	15600	17160	18876	20763	22839
Worker	10	60000	66000	72600	79860	87846
Office boy	2	1200	1320	1452	1597	1756
Assistant	7	33600	36960	40656	44722	49194
Total	32	362400	398640	438504	482354	530590



A.4 Non- Staff Operating Costs

OPERATING COSTS

	2008	2009	2010	2011	2012
Premises rental	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Utilities	\$1,350.00	\$1,350.00	\$1,350.00	\$1,350.00	\$1,350.00
Total Occupancy	\$1,350.00	\$1,350.00	\$1,350.00	\$1,350.00	\$1,350.00
Office Furniture&Equipment	\$7,500.00	\$0.00	\$0.00	\$0.00	\$0.00
Office Fittings	\$109,500.00	\$0.00	\$0.00	\$0.00	\$0.00
Factory Equipment	\$13,500.00	\$0.00	\$0.00	\$0.00	\$0.00
Dep/ Office Fittings	\$10,950.00	\$21,900.00	\$21,900.00	\$21,900.00	\$21,900.00
Dep/ Factory Equipment	\$1,350.00	\$2,700.00	\$2,700.00	\$2,700.00	\$2,700.00
Dep/ office furniture&equioment	\$750.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
Periodacals	\$250.00	\$250.00	\$250.00	\$250.00	\$250.00
Total Office	\$143,800.00	\$26,350.00	\$26,350.00	\$26,350.00	\$26,350.00
Telephone& Fax	\$6,000.00	\$6,000.00	\$6,000.00	\$6,000.00	\$6,000.00
Postage and Courier	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00
Total Comms	\$9,000.00	\$9,000.00	\$9,000.00	\$9,000.00	\$9,000.00
Computers	\$10,000.00	\$0.00	\$0.00	\$0.00	\$0.00
Dep/ of Computers	\$1,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
Total Computers	\$11,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
Product Distrubution	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00
Brochure and Printing	\$3,500.00	\$3,500.00	\$3,500.00	\$3,500.00	\$3,500.00
Promotional Items	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
Total Marketing&Sales	\$8,000.00	\$8,000.00	\$8,000.00	\$8,000.00	\$8,000.00
Vehicles	\$5,000.00	\$0.00	\$0.00	\$0.00	\$0.00
Dep/ of Vehicles	\$500.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Total TS&E	\$5,500.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Audit Fees	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00
Legal Fees	\$380,576.00	\$573,433.82	\$699,077.66	\$847,337.38	\$878,283.85
Total Professional	\$392,576.00	\$585,433.82	\$711,077.66	\$859,337.38	\$890,283.85
Insuarance	\$24,940.00	\$24,940.00	\$24,940.00	\$24,940.00	\$24,940.00
Total Other	\$24,940.00	\$24,940.00	\$24,940.00	\$24,940.00	\$24,940.00
Total Expenditure	\$594,816.40	\$733,473.82	\$859,117.66	\$1,007,377.38	\$1,038,323.85



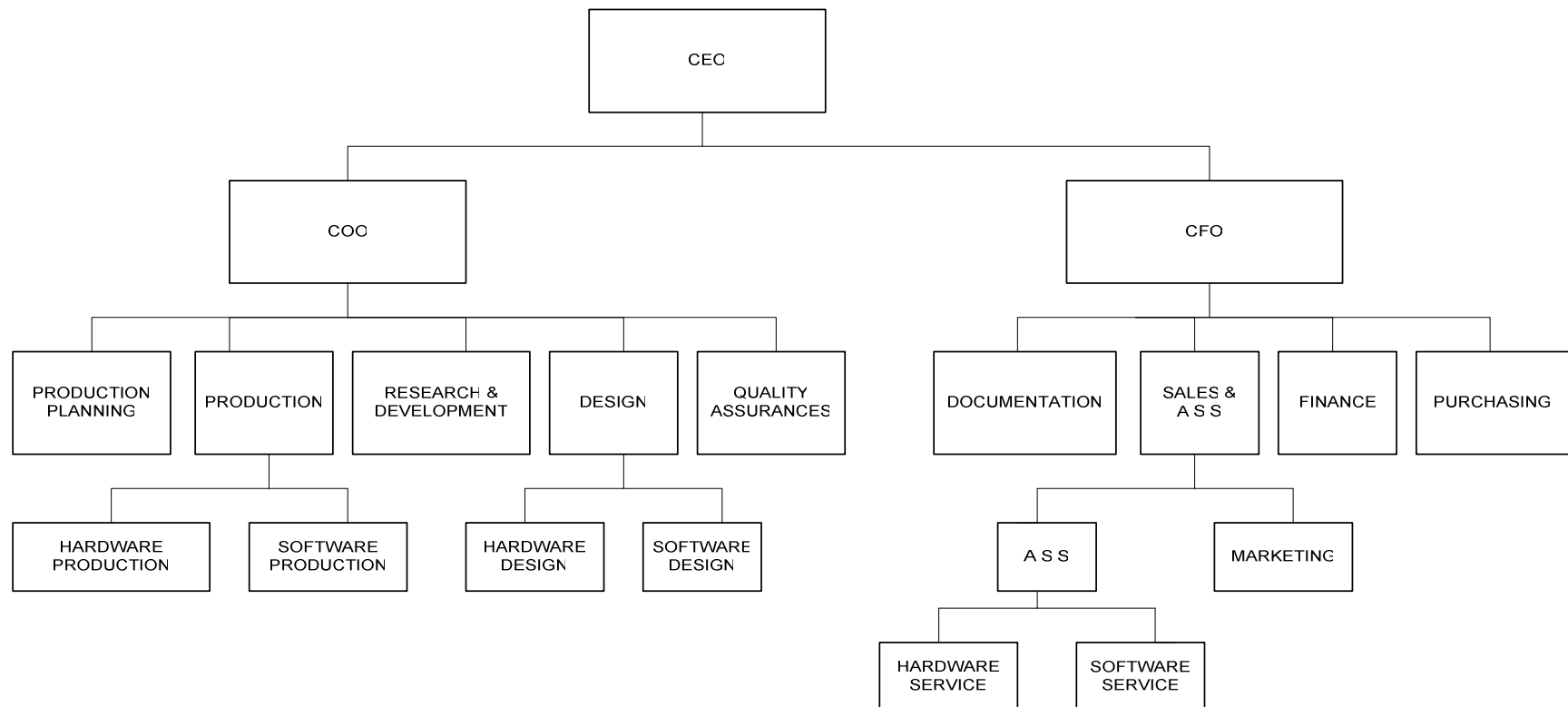
A.5 BALANCE SHEET AND INCOME STATEMENT/ ROE

BALANCE SHEET	2008	2009	2010	2011	2012
CURRENT ASSETS	0.00	72,300.00	83,799.97	123,209.10	181,117.38
Liquid Assets	0.00	72,300.00	83,799.97	123,209.10	181,117.38
Short Term Trade Receivables	0.00	0.00	0.00	0.00	0.00
LONG TERM ASSETS	218,500.00	218,500.00	218,500.00	218,500.00	218,500.00
Tangible Fixed Assets	203,950.00	189,400.00	189,400.00	189,400.00	189,400.00
Intangible Fixed Assets	0.00	0.00	0.00	0.00	0.00
Other Long Term Assets	0.00	0.00	0.00	0.00	0.00
Accumulated Depreciation	14,550.00	29,100.00	29,100.00	29,100.00	29,100.00
TOTAL ASSETS	218,500.00	290,800.00	302,299.97	341,709.10	399,617.38
TOTAL LIABILITIES & SHAREHOLDERS' EQUITY	218,500.00	290,800.00	302,299.97	341,709.10	399,617.38

INCOME STATEMENT	2008	2009	2010	2011	2012
NET SALES	1,484,000.00	1,521,100.00	1,558,200.00	1,595,300.00	1,632,400.00
COST OF SALES (-)	148,000.00	151,700.00	155,400.00	159,100.00	162,800.00
GROSS PROFIT (LOSS)	1,236,000.00	1,369,400.00	1,402,800.00	1,436,200.00	1,469,600.00
OPERATING EXPENSES (-)	1,120,000.00	1,148,000.00	1,176,000.00	1,204,000.00	1,232,000.00
OPERATING PROFIT (LOSS)	116,000.00	221,400.00	226,800.00	232,200.00	237,600.00
INCOME & PROFIT FROM OTHER OPERATIONS	0.00	0.00	0.00	0.00	0.00
EXPENSES & LOSSES FROM OTHER OPERATIONS (-)	0.00	0.00	0.00	0.00	0.00
FINANCIAL EXPENSES (-)	212,900.00	212,900.00	212,900.00	212,900.00	212,900.00
PROFIT BEFORE EXTRAORDINARY ITEMS & TAX	-96,900.00	8,500.00	13,900.00	19,300.00	24,700.00
EXTRAORDINARY INCOME & PROFIT	0.00	0.00	0.00	0.00	0.00
EXTRAORDINARY EXPENSES & LOSSES (-)	0.00	0.00	0.00	0.00	0.00
PROFIT BEFORE TAX	-96,900.00	8,500.00	13,900.00	19,300.00	24,700.00
TAX & OTHER LEGAL LIABILITIES (-)	0.00	3,400.00	5,560.00	7,720.00	9,880.00
NET PROFIT AFTER TAX	-96,900.00	5,100.00	8,340.00	11,580.00	14,820.00

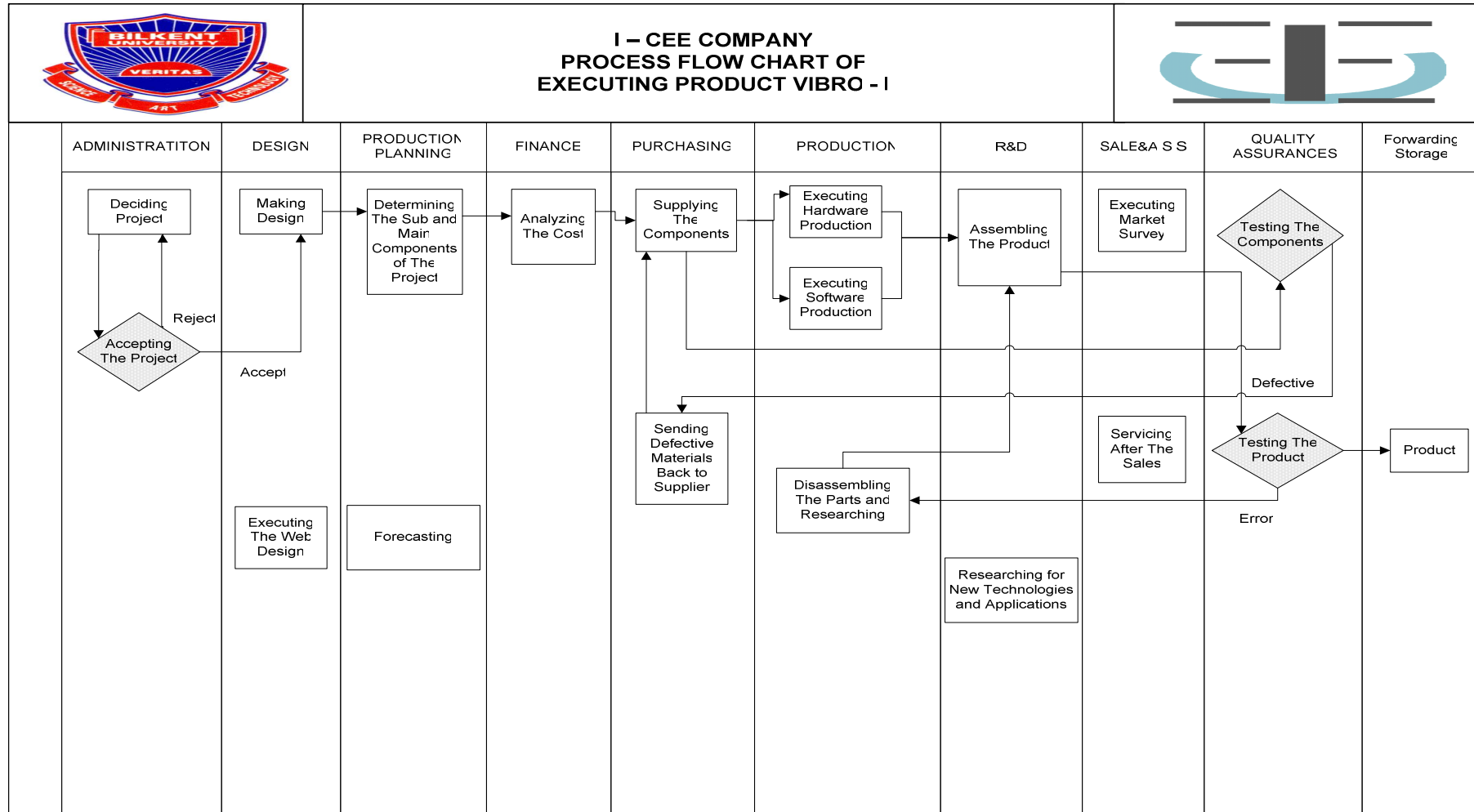


ANNEX B1

**I – CEE
ORGANIZATION CHART**



ANNEX B2



ANNEX C Management Biographies

İlker Danyal Kanatlı

Born in 11 August 1984 in Antakya. He graduated from Antakya Osman Ökten Anatolian High school. He will graduate from EE department from Bilkent University. He worked in Turkcell GSM Operator Company in planning and Base Station Department and worked in Vestel A.Ş in AR-GE department. He knows fluent English and Arabic as foreign languages.

Oğuzhan Aras Bulut

Born in 10 February 1985 in Samsun. He is going to graduate from Bilkent University, Industrial Engineering Department. He worked as intern in Hidromek Company Asst. Production Man., Polisan Company Asst. in Quality & Environment Dept. He has German upper level certificate from TÖMER. He was the captain of Samsun Anatolian High School Basketball Team that had a second degree in Turkey (2000).

Esra Dokuzoğlu

Born in Antakya in 21 June 1985. She is going to graduate from Bilkent University, Computer Science Department. She has worked as a software engineer in Qbit Gmbh in Germany for a month in 2007 summer. She is also working as a professional dancer for 13 years. Lastly she won the dance competition of Nike in 2007. She is planning to get a master degree from Graphic Design Department.

Ceren Hasaebi

Born in Ankara in 15 April 1986. She is going to graduate from Bilkent University, Computer Science Department. She has worked as a software engineer intern in Information System departments of Roketsan Defense Corporation for a month in 2006 summer and of Central Bank of the Turkish Republic for two months in 2007 summer. She knows fluent English and basic Spanish. She was a licensed swimmer during middle and high school years. She is planning to get a master degree from Computer Science Department.

Berk Korkut

Born in Eskisehir in 25 July 1986. He is going to graduate from Bilkent University, Electrical Electronics Engineering Department. He has worked in R&D department of the Kardiosis & Tapa Biomedical Company for internship during 2007 summer. He knows fluent English, German, basic Spanish and French.

Ekin Kartal

Born in 14 April 1986 in Sakarya. She is going to graduate from Bilkent University, Industrial Engineering Department. She worked as intern in Otokar Bus Carouser Company in Product Engineering Dept. and in Ormaksan Machine Engineering Company in Quality&Assurance Dept. She knows high-level English and basic-level German.