

**American University of Armenia**  
an affiliate of The University of California  
**College of Business and Management**

## **ARAGAST B CORPORATION**

### **BUSINESS PLAN** Final Report

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## I. EXECUTIVE SUMMARY

Aragast B is a diversified software developer addressing commercial, industrial and contract development markets throughout the CIS, Europe and Middle East. Current core competencies include commercial banking software, factory automation, business productivity, sales and inventory control systems in addition to off-the-shelf multimedia entertainment and educational software. Aragast B specializes in the development of niche market software tools for emerging markets with unique linguistic and socio-economic demands.

Since its primary markets are in the CIS and the Middle East, Aragast B develops integrated software solutions such as accounting software with multilingual multimedia dictionaries, multilingual fonts (including Arabic) and features that enable emerging enterprises to operate more effectively in a rapidly changing international economic environment.

Aragast B is uniquely positioned in the "Silicon Valley of the Former Soviet Union" (*New York Times*, April 27, 1994) and, consequently, utilizes a vast pool of software development engineers and programmers formerly employed by the Soviet military-industrial complex. This large source of technical expertise coupled with the current economic transition of the entire CIS region (especially Armenia) enables Aragast to develop the highest quality software at the lowest possible cost. Additionally, Aragast B understands CIS and Middle East markets and their unique business environments due not only to geographical proximity but also due to established Armenian business communities that have fostered ARAGAST B's entry into such markets. Existing diasporan communities have already provided valuable assistance in Dubai, Russia, France, the United States and Iran.

As a well-established and dynamic enterprise, Aragast B is poised to expand rapidly into its existing markets and is seeking strategic development partners in both the US and Europe to enter these larger, more competitive markets. Aragast's fundamental strategy, therefore, is to 1) penetrate contract development and enterprise tools markets throughout the CIS and Middle East, 2) expand its marketing and sales infrastructure in CIS, 3) seek strategic partnerships and distribution arrangements to develop sales and marketing of its commercial multimedia software in Europe, the Middle East and the US, and 4) expand its research and development in the areas of medical technology and laboratory information systems and business tools in Armenia so that Aragast B may fully maximize its unrivalled development cost advantages.

In order to successfully implement the Company's following seven year plan, it expects to raise approximately \$15 million in investment capital. Detailed product development cost structure for product and service cost requirements are elaborated in the sample worksheets provided in Annex 2.

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### III. ARAGAST B OVERVIEW

#### A. Company Background

The Company was one of the first private ventures in the former Soviet Republic of Armenia and software development was its initial occupation. Independent of ARAGAST B operational activities, however, ARAGAST Holding, a separate corporation, was formed to expand into banking, insurance, agriculture, import/export, air cargo transportation and consumer products wholesale and retail and operates outlets in Yerevan and Odessa. ARAGAST B is wholly independent of ARAGAST Holding.

#### B. Management

ARAGAST senior management is comprised of its president and chief executive officer and the three vice presidents each responsible for accounting, marketing, and software research and development. This management structure has remained unchanged since the founding of Aragast B. See "V. Management" and Appendix 3, for further details.

- ② **Gurgen Martirosian**, President, Chief Executive Officer, Director and co-founder
- ② **Garegin Chookaszian**, Vice President, Marketing and Strategic Planning, Director
- ② **Sergei Solakhian**, Vice President, Software Research and Development, Director
- ② **Samvel Badalian**, Vice President, Finance and Accounting, Director

#### C. Products

Aragast B information technology enables enterprises to enhance the efficiency of operational and analytical methods, systems and controls, establish equivalent western organizational structures, and to simplify communications. All Aragast B products are copyrighted to Aragast B Corporation.

ARAGAST B intends to utilize investment capital in order to develop the following products:

##### *System Level Software*

- ② **ArBank**: Arbank is an integrated banking software tool with a modular architecture for upgrades and service options. ArBank provides mainly CIS banks with an operations and accounting interface with international banking systems and its own domestic network. Features will include credit card transaction processing, electronic funds transmission, automated teller machine interface and checking.
- ② **ARAG ACCOUNTING**: Arag Accounting is intended to be a dual accounting system software tool that integrates host-business accounting systems with US and European accounting systems and is marketed mainly to recently privatised CIS enterprises as well as small and medium-size businesses in the Middle East.

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- ② **SWICS:** SWICS (Store and Warehouse Information Control System) introduces inventory control to enterprises without standardized control mechanisms and will offer a user-friendly graphical user interface for easy start-up and operation.
  - ② **ARB Assistant:** Arb Assistant is a full suite of business operations and productivity enhancement tools that will be marketed with Aragast's systems level software as well as off-the-shelf. Tools include contract management, financial management, small business accounting, human resources management, payroll processing, marketing presentation, etc.
  - ② **SYSLAM:** Syslam is a specialized software system for the automation and organization of medical laboratory testing facilities. The principal clients for such systems are independent medical laboratories as well as those attached to hospitals or clinics.

#### *Technical Support and Customer Services*

- ② **SERVICE DEPT.:** Aragast proposes to develop a customer service department in order to provide customers of its system level software with service support for these products that it will carry out under contract to its clients.

#### *Multimedia Software*

- ② **EDUCATIONAL PROGRAMS:** Educational multimedia software titles such as "LINGUA" offer multilingual educational tools for children of all ages. More advanced titles will include mathematical education tools, nature education and other learning tools for children.
- ② **HYPERGUIDE:** Hyperguide is a program shell that Aragast B created in order to develop custom software "guides" for promotional, marketing or advertising purposes. The goal of the Hyperguide is to recreate presentation material in a compelling and more engaging format than traditional printed matter or film.
- ② **VIRTUAL MUSEUM:** Virtual Museum is a multimedia product that focuses on the presentation of artistic matter a "museum" environment. The product dynamically integrates text, images and sound that creates an artistic journey through current themes such as Armenian architecture, Iranian, Russian and European art, the Karabagh region and ancient Armenian manuscripts.
- ② **DICTA AND FONTS:** The DICTA Electronic Dictionary Series is a language and writing tool that Aragast has created as a stand-alone product as well as a complimentary software tool for Aragast system software. This tool kit is designed to support a wide range of applications in DOS and Windows environments and is currently offered in English-Russian, English-Armenian and English-Arabic. FONTS are an analogous element to the dictionary series in that they provide the essential writing tool for complex languages such as Arabic, Farsi and a variety of Asian languages.
- ② **MEDMAN:** Medman is a multimedia information and education resource tool that illustrates and explains methods of natural healing and herbal medicinal extraction. Users identify symptoms and/or

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health ailments and Medman identifies the appropriate herbal medicinals, where they are likely found, how they are prepared and the symptoms and side-effects associated with them.

In addition, ARAGAST B is researching the potential development of the following products that are not included in this business plan:

- **GEOGRAPHIC INFORMATION SYSTEMS:** GIS software provides total geographic simulation that enables the user organization to incorporate data onto geographical maps. The purpose of the system is to facilitate development, evaluate environmental impacts of certain projects, calculate harvest volumes and site survey. These systems will likely be marketed and sold to regional governments and ministries with far-flung geographic spheres of operation and management, such as energy ministries, petroleum consortia, and other expansive enterprises.
- **APPLICATION CUSTOM PROGRAMS:** For factories, organisations, state administrations, and companies.
- **COMMUNICATIONS SOFTWARE:**

A list of existing software packages is presented in Appendix 4.

#### D. ARAGAST B Major Customers

<u>Armenia</u>		<u>Europe</u>	<u>CIS</u>
<b>Organizations</b>	<b>Banks</b>		
Armenia Railway Authority	Central Bank of Armenia	Siemens	West Siberian Commercial Bank of Nadim
Yerevan Jewelry Factory	ARMEKONOMBANK	French Government	Nadim Industrial Construction Bank
US Agency for International Development	Bank METS		
United Nations (UNFP)	INVESTBANK		
United World Agency Fund for Democracy	DIABANK Bank Ararat Davit Bank World Bank Branch		



### E. Marketing Strategy Summary

The Company's market penetration strategy is the subject of subsequent chapters in this business plan and are subject to modification as the Company progresses in its endeavor to secure financing and strategic alliances. This strategy is based upon:

- ⊗ Competitive pricing, value-added innovation (including 3-D, object oriented programming), complete customer service
- ⊗ Extensive market intelligence network in both CIS and regional economies
- ⊗ Strategic alliances with western and CIS firms for collaborative marketing and distribution
- ⊗ Branch sales and service operations in all major market regions
- ⊗ Extensive distribution network of retailers, systems integrators and original equipment manufacturers and distributors
- ⊗ Maximization of competitive development advantages in niches such as low-cost animation, object-oriented programming, and a complete multimedia studio.

### F. Headcount

ARAGAST B staff totals 90-100 persons although 40-50% are technically part-time employees. The staff breakdown is as follows as of October 31, 1994:

<u>TECHNICAL/ DEVELOPMENT STAFF</u>	<u>Part- Time</u>	<u>MANAGEMENT/ ADMINISTRATION</u>	<u>Part- Time</u>
<u>Programmers</u>		Senior Managers	4 0
Windows:	15 7	Marketing/Sales	5 2
Database:	<u>15</u> <u>7</u>	Consultants /Advisors	5 5
TOTAL:	30 14	Administration	10 7
		Maintenance	<u>7</u> 0
<u>Multimedia Studio</u>		TOTAL:	<b>31 14</b>
<u>Department</u>			
Software/Graphics Designers	6 6	<b>TOTAL STAFF:</b>	<b>97 46</b>
Animators	3 3		47%
Musicians	1 0		
Chief Designer	1 0		
Technical Staff	<u>10</u> <u>3</u>		
TOTAL:	21 12		
Engineers/Tech Support	<u>15</u> <u>5</u>		
	<b>66 32</b>		

### G. Risk Factors

This table shows how risk has been evaluated, where it stems from, and which areas are most dangerous. It allows one to compare the exposure, given various assumptions. The "weights" shown in the table below reflect how elements of risk affect the business. The Overall Risk has a weighting equal to 1.0. The individual elements of risk are described in Section G (below).

Elements of Risk	Degree of Risk			Weight	Total
	Low	Med	High		
Market Saturation			10	.05	.50
Economic			10	.05	.50
Disruptions		5		.10	.50
Political Upheaval	1			.20	.20
Software Piracy		5		.10	.50
Increasing Costs	2			.20	.40
Price/Margin	2			.20	.40
Quality Control		5		.05	.25
Market Isolation		5		.05	.25
Overall Risk				1.00	3.50

### H. Rationale

Market Saturation: The market for software products is growing very rapidly and can be expected to continue to do so. Nonetheless, competition is fierce and to face this risk ARAGAST B will conduct extensive research and development resources to maintaining its current position at the leading edge of the software industry, employing the best foreign consultants and further developing its strategic partnerships with other firms. Whilst concentrating on the production of major innovative products, it will at the same time be exploiting each major customized product for the development of more generalized versions for off-the shelf sales. Certain basic programming shells already developed will ensure a marketing edge for its products for some years to come. Moreover ARAGAST B has a strategic geographical and cultural advantage over its competitors for certain markets.

Economic Upheaval: Although the risk of economic upheaval is high, it has also been high in the recent few years but notwithstanding ARAGAST B has thrived in this environment. In fact many of ARAGAST B's products are of a critical benefit to companies (and countries) experiencing economic upheaval because they address themselves to basic social and economic problems. In addition, the market for ARAGAST B's products is very broad and not overconcentrated in a single country.

Disruptions: ARAGAST B has already experienced disruptions of communications which it has overcome with extensive use of fax and Email. Transport disruptions could not have been more devastating but services have shown a steady improvement in recent years, and, with political improvements in sight, are likely to continue to improve. In fact, transport considerations are relatively

unimportant for software companies. Disruptions in energy supply do indeed affect the smooth functioning of software companies, and electricity cuts have been frequent in the last few years. ARAGAST B already protects itself from this risk by using its own electricity generator.

Political Upheaval: When compared with neighbouring CIS states, and taking into account the homogeneity of the ethnic, linguistic, cultural and religious composition of the population, political upheaval is highly unlikely.

Software piracy: This is a risk facing all software companies. ARAGAST B protects itself by copywriting its key products and supporting the efforts to have copyrights protected. This risk does not apply to its customized products.

Increasing Costs: Whilst the risk that increasing costs will affect current competitiveness is very low in the short run, this factor must be given a high weighting because of its obvious relation to the economic viability of the Corporation.

Price and Margin Pressure: as with increasing costs, the weighting of this risk is high because it affects profitability so directly. To countenance this risk ARAGAST B has a strategy of maintaining a wide margin and a marketing approach designed to give it a market penetration to ensure its market position.

Quality Control: ARAGAST B will have to ensure that it keeps abreast of technological and software developments in the West (where most innovations come from). It plans to maintain and further develop its links with leading manufacturers of the industry.

Market Isolation: Its geographical location gives Armenia both advantages and disadvantages. On the one hand it is well located to exploit the CIS and Middle Eastern markets, whilst on the other it will need to build up its marketing strength (through strategic alliances with local firms) in Western Europe and Northern America.

#### IV. COMPETITION

##### A. Competitive Environment

In its broad range of business activities, Aragast B faces different levels of competition from a variety of sources. Many newly-formed software companies in the former Soviet Union are offering high-quality products at affordable prices to western clients, in addition to meeting demand in their home market. However, ARAGAST is able to 1) undercut even Russian prices, 2) provide a more

dynamic and productive work environment and utilize a diasporan network of contacts that far outreach those of Russian competitors. The competition in the field of multimedia is also formidable. At the same time, niche markets such as Armenian and Persian art offer virtually uncontested opportunities for sales of new products.

The Company is aware of no other software houses in Armenia although some enterprises have in-house staffs and individual programmers are available. No other organization in Armenia possesses the depth and breadth of computer skills and experience as Aragast B. As any real competition is international, Aragast B products can and will compete on the basis of quality, originality and, emphatically, on price. Aragast B produces a high quality product at a very competitive price.

Internationally, this industry competes on distribution channel control, ease-of-use, functionality, and quality of product, attractive packaging (in retail outlets) and adequate shelf space, and price (with deep discounts from artificially high list prices). Whilst start-up companies in all industries face great difficulties most of the successful companies on the international market have been start-ups within the last 10 years. Companies with reasonable capitalization and a good product stream usually succeed by themselves or by profitable merger into larger companies.

#### **B. Aragast B's Competitive Advantage**

The key to Aragast B's success lies in five important factors:

- a. Yerevan, the capital of Armenia, was a centre for computer research of the former Soviet Union, with many institutes devoted to the development of military technology. As a result, Armenian experts received the highest level of training and expertise. Most of Aragast's technologists come from these institutes and research centres. In addition, Aragast B is known within scientific circles in Armenia as a leading-edge technology house, and the company has cultivated joint-development relationships with experts in fields ranging from geophysics to art history.
- b. Aragast B has entered into a cooperative relationship with the Yerevan Computer Research Institute (YCRI), the most respected of the above-mentioned research centers. Aragast B has moved its product development group to the Institute in order to collaborate with the Institute's highly qualified experts on a broad range of projects. The ultimate goal of this alliance is to enlarge Aragast B's research and development resources, at the same time stemming the "brain-drain" of YCRI's experts to countries such as Iran. The affiliation and joint-development with YCRI puts Aragast B at the forefront of computer research in Armenia.
- c. In the past two years, Aragast B's experts have attended and participated in several conferences and tradeshows in the CIS, Middle East, Europe and the United States. Each event has yielded both important contacts with renowned experts such as Terry Winograd (Stanford University), Marvin Minsky (Massachusetts Institute of Technology), Esther Dyson and Ted Nelson (Brown University/Autodesk), as well as exposure to the latest technology in the west. Aragast B's

strategic and development teams have taken advantage of these valuable resources to shape the technological direction of the company. Aragast B has recently been invited by the Ministry of Industry of France to represent the economic potential of the Republic of Armenia at a roundtable in Paris. In addition, Aragast B participated in the Conference on Technology and Education, organized by MIT.

- d. Aragast B has a cooperative commercial relationships with Aragast JV, one of the fastest growing private enterprises in Armenia, whose activities range from consumer product distribution to commodity futures brokering, insurance and a large-scale agricultural enterprise. Aragast JV's financial backing, distribution network, as well as retail outlets in Yerevan, Odessa and Moscow (2nd quarter 1993), facilitate Aragast B's development and access to markets. Finally, in the course of its diversified business activities, Aragast JV comes in contact with many leading western institutions and companies. As a result, Aragast B enjoys a greater degree of interaction with potential technology providers, distributors and clients than other software companies in the CIS.
- e. The sizable Armenian diaspora provides Aragast B with an established network of contacts all over the world, but especially in the growing Middle Eastern market. In this area of the world, experienced and connected local partners are critically important, and Aragast B has sought out and reached agreements with Armenian computer executives in new markets such as the United Arab Emirates and Iran.

All these factors along with intensive contacts with business and scientific people visiting Armenia allow Aragast B make potential customers aware of very high quality products with very low prices.

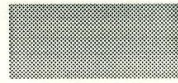
### **C. Competition by Major Region**

The following chart illustrates the foreseen competition divided by product and geographic characteristics. Aragast B is at the forefront of software development and marketing in Armenia. It has established significant marketshare in important industries such as the banking sector, and benefits from the distribution strengths of its parent company, Aragast JV. In the rest of the CIS, Aragast B faces moderate to sharp competition in selected product categories. The Middle Eastern market is quite competitive, but as it is growing, there is still plenty of room for new players. Finally, niche markets in the United States and Europe are relatively easy to penetrate. The competition for strategic development alliances, however, is much more acute.

**Market Competitiveness**

	Armenia	CIS	Middle East	Other countries
Banking/ Accountanc				N/A
Fonts				
DICTA				N/A
SWICS				N/A
Virtual Museum/ Hyperguide				
Factory Automation				N/A
Governmental Infrastructure		N/A	N/A	N/A
Presentation and Authoring Tools				
Development Alliances		N/A	N/A	
Custom Software Development				

 Slightly  
Competitive<sup>1</sup>

 Moderately  
Competitive

 Highly  
Competitive<sup>2</sup>

N/A Not Applicable

<sup>1</sup> Most advantageous to Aragast B

<sup>2</sup> Least advantageous to Aragast B

## V. MANAGEMENT

### A. Managers and Directors

ARAGAST B senior managers have worked with the Company since its founding and have guided it through the turbulent economic transitions that have characterized most former Soviet republics. In Armenia, particularly, senior management withstood the worst economic and political pressures of the early 90's and are well prepared to build ARAGAST B in the more stable economic environment that now characterizes Armenia.

All ARAGAST B senior staff and directors were former engineers, software developers and computer scientists working for Soviet research institutes and defense industry facilities in Armenia and Russia. Their respective technical expertise is matched by their founders' experience in initiating and developing profitable businesses in computer software as well as consumer product distribution, brokerage and agricultural enterprise. Gourgen Martirosian, Chief Executive Officer, founded ARAGAST B with his brother and ARAGAST B Board Chairman, Armen Martirosian. Both have built the ARAGAST mini-conglomerate into a model of private enterprise development in the Former Soviet Union.

See Appendix 3 for more information about the management team, management philosophy, initiatives, etc.

## VI. MARKETING STRATEGY

### A. Marketing Overview

ARAGAST B seeks to maximize its main competitive advantages which are 1) low-cost production, specifically programming, animation, overhead, 2) local market knowledge and market proximity to CIS and Middle East, and 3) value-added innovation and recognized quality. Based on these advantages, ARAGAST B seeks to 1) develop multiple strategic alliances with Western (North America and Europe) consumer software developers and publishing houses in order to maximize their marketing and distribution networks while providing low-cost, innovative multimedia titles and productivity enhancement tools; 2) develop a CIS-wide marketing, sales and distribution network that systematically targets emerging business sectors and effectively targets the appropriate ARAGAST tool or product suite; 3) develop retail, wholesale and original equipment manufacturer and value-added reseller distribution arrangements for ARAGAST B products in the Middle East in order to capture market share in the new computer market for both consumer and business applications; and 4) develop regional sales, marketing and service offices in Dubai, Moscow, Paris, one Eastern European city and one US location in order to establish a definitive market presence and provide the highest quality customer support.

ARAGAST B's tactical approach is based on four objectives: 1) Establish a marketing department and operational system that integrates timely market research with effective engineering cost-benefit analysis; 2) Establish distinct product teams that maximize input from research, product management, development engineers and promotion staff; 3) Establish a new business development group which solicits strategic alliances and joint-marketing agreements with both development partners and distributors; and 4) Build a coherent strategy and corporate identity based on the Company's product portfolio, competitive advantages and strategic direction.

### **B. Product and Service Strategy**

The company will capitalize on the successful products it has developed in the past two years to build a balanced portfolio around its three core competencies: business system software and tools, educational multimedia titles and electronic language tools. Consistent look and feel, ease-of-use, attractive packaging and product quality will help establish brand name equity and repeat purchase. In addition, the continual introduction of derivative products will reinforce existing market share and generate operating margin expansion. Additionally, ARAGAST B intends to develop full-service customer support and technical assistance for system-level software packages.

Detailed strategies for each product/product group are as follows:

- a. **ARAG Accounting/ARB Assistant/SWICS:** are products intended for medium- and large-size enterprises in the CIS countries that are adapting to privatization and free market competitive demands. This product suite will offer such firms the possibility of maintaining a dual system of accounts according to the Former Soviet Union system and standard western systems. Inventory control and a host of productivity enhancement tools specifically adapted to CIS markets differentiate the ARAGAST B software solution from standard western tools marketed today. The marketing strategy will be to offer a high-quality product which is easy to install, use and conform to an existing reporting mechanism and which should be the first available on the market.
- b. **Virtual Museum/Hyperguide:** The company has already developed thematic series of Virtual Museum based on Armenian art, architecture and history. ARAGAST B has already produced and marketed similar collections for the Russian, Iranian and Arabic cultures. The title "Virtual Museum" properly prefaces the next generation of this product, which will include advanced multimedia technology, and will with each new version move closer to the concept of virtual reality. Hyperguide will be at first marketed as a low-cost tourism reference product, but will eventually include wide-ranging economic, demographic and geographic information about specific countries. The marketing effort will be geared to raising the image of the product as it



- becomes a more serious business and governmental reference tool. Finally, the company will introduce its first user-friendly authoring kit.
- c. **ARBANK:** ARAGAST B will use the endorsement of major current clients such as the National (Central) Bank of Armenia to demonstrate the technical merits and aggressively market ARBANK in all CIS countries. The company will promote its strengths as a software developer and systems integrator, and will sell competitive hardware/software service contracts with each copy of ARBANK.
  - d. **SYSLAM:** In the first few years, ARAGAST B will concentrate in marketing in Middle Eastern countries in collaboration with its French partner, Codat Informatique. Extensive participation in trade shows of medical equipment will be used to identify principal customers. In later years, ARAGAST B will expand its marketing to the CIS and Europe.
  - e. **DICTA/Fonts:** DICTA and Fonts are optimally marketed in OEM (Original Equipment Manufacturer) or bundling arrangements with computer hardware retailers and wholesalers in regions where language tools are most in demand: Middle East, CIS and Europe. Every new computer sold through Dubai resellers, for example, should come with a multimedia Farsi or Arabic dictionary and appropriate fonts. ARAGAST B also intends to utilize a low-end version of both products as promotional incentives with systems software applications and business tools, where appropriate. Intended languages are English--Russian, -Farsi, -Arabic, -French, -German.
  - f. **Educational software/Medman:** ARAGAST B will likely partner with a larger western software developer in order to launch its off-the-shelf multimedia titles in western markets. These partnerships may be structured as joint development or joint marketing and distribution arrangements.

### C. Product Portfolio

ARAGAST B's products facilitate the analysis, interpretation and presentation of information across national, organizational, linguistic and media (sound, still images, text, video) boundaries. ARAGAST B will position itself as providing a portfolio of products that bridge the international information gap as well as bridge the intuitive gaps between art and technology. Therefore, it is logical to market complimentary products such as business productivity and language tools together as well as art and education titles.

A portfolio strategy, and the accompanying tactics, provide integrated solutions to consumers while they also create economies of scale for advertising, for promotional campaigns at the retail level, and press coverage. It expands the bundling capabilities while also providing a fundamental basis for introducing larger enterprise systems. The consistency of the products' image and packaging heightens the visibility and recognition of ARAGAST B. It facilitates the task of retail managers.

For example, while products such as Virtual Museum, Hyperguide and WinFont (with Armenian and Russian fonts) are marketed separately, ARAGAST B will develop "country introduction kits" that include a Hyperguide version about the country, select Virtual Museum volumes, and the appropriate language versions of DICTA and TrueType fonts. These packages will preface the introduction of the *Multiguide* series, which will offer latest-technology interactive multimedia databases for selected countries. Similarly, database products such as ArBank, ARAG Accounting and SWICS will be presented as a family of business productivity tools designed to run efficiently in networked environments.

#### **D. Strategic Alliances and Cooperative Distribution Arrangements**

In order to maximize ARAGAST B's local market advantages while also expanding its market presence throughout the world, ARAGAST B relies on strategic development and marketing partners to represent its interests in various parts of the world. For multimedia education and entertainment titles, ARAGAST B hopes to capitalize on its relationships with software developers in the US and Europe in order to develop cooperative marketing and development contracts. For Virtual Museum and Hyperguide products, ARAGAST B intends to focus on publishing houses, state tourist agencies and other information and promotion publishers to develop complimentary multimedia titles.

The company will continue to capitalize on ARAGAST B JV's distribution channels in three lucrative markets for its products: Yerevan, Moscow and Odessa. At the same time, the company's accumulated network of contacts and access to potential customers provide the foundation for a strong direct sales and marketing network. Once this infrastructure is established, the company will take advantage of the exclusive rights granted to the distributor in each region to implement a similar strategy in additional territories. It is imperative that ARAGAST B controls the image (packaging, presentation, promotional material) of its portfolio of products in all markets. Contracts with new marketing partners will ensure adherence to these goals.

ARAGAST B has developed a joint development alliance with New Technologies in Moscow in order to assist ARAGAST B in establishing a sales and marketing presence in the Russian market. In the United States, ARAGAST B has entered international distribution arrangements with Gomidas Solutions and in Dubai has entered into a similar agreement with Systronics Corporation.

#### **E. Promotion**

In the competitive software market, the differentiating factor lies in ARAGAST B's ability to communicate the value it delivers to its growing customer base. ARAGAST B aims at a wide coverage of its mission, of its products, and of its leadership. Individual product promotion will be determined by the project team and will incorporate local as well as internationally-accepted means for promoting sales.

## F. ARAGAST B Business Philosophy

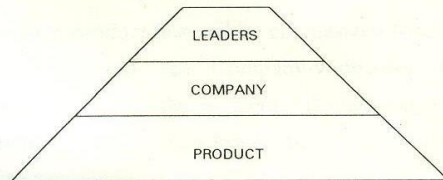
ARAGAST B will work to develop and maintain its image as the leading CIS information technology innovator and developer. By stressing the significance of Armenia's historical role at the cross-roads between east and west, this marketing theme will enhance the company's market identity as a provider of software tools that break information boundaries and build productive information links.

ARAGAST B will also emphasize its universal and educational purpose in a changing world. In its role as the leader in a new market, Armenia, will draw significant attention from the press and financial community.

## G. Marketing Methodology

### 1. Press Relations

There are three levels of visibility and recognition for ARAGAST B: 1) Products gain recognition due to performance reviews and customer satisfaction; 2) The company is recognized for its contribution to both the market, society and its employees; 3) The leaders are acknowledged for their industry insight and strategic vision.



ARAGAST B has successfully marketed the company's story to the international press with full-length articles about ARAGAST B appearing in the worlds' most widely read publications in the US, Europe, the CIS and Asia. The next step involves feature articles about the company's specific products, technical capabilities and competitive potential in CIS and regional markets. Novell gained its prominence in the network OS field because of the perception it created in the public as the inventor of a standard for communication in the workplace. They created NetWorld and other industry gatherings and became the landmark for this segment. Similarly, ARAGAST B is capable of creating a prominent identity based on the success of key products such as ARAGAST B Accounting, GIS, and its family of language tools. As the company gains more visibility in the international computer industry, it hopes to organize regional computer strategy conferences in Armenia.

## **2. Trade shows**

Trade shows have provided significant results for ARAGAST B, and will continue to play an important role in the development of a coherent marketing strategy and image. Trade shows have served as both marketing vehicles and profit centres where the on-site sales have financed exhibition expenditures. At the same time, a strict follow-up process must be executed in order to capitalize on the numerous contacts made during trade shows.

In addition, ARAGAST B has begun to participate as a speaker in different events in both academic and business environments. This added prestige corresponds to the higher profile the firm has attained because of its central role as a technology innovator in this region of the world.

## **3. Advertising**

Until now, ARAGAST B has relied on word-of-mouth advertising from satisfied customers, and its large network of contacts, to promote its products. The time has come for a selective, highly-targeted advertising campaign in several key markets. The company will rely on early success in each market to finance advertising of its products in that market. In other words, an aggressive direct sales effort will likely precede any advertising expenditure in each potential market.

A company-wide product line will be emphasized to address the issue of ARAGAST B's leadership and its large portfolio of offerings. Company-wide advertising facilitates the allocation of shelf space to a company which symbolizes the segment. It encourages easier pre-adoption by the resellers when a product is launched. Moreover, it lowers the need for costly, heavy single-product ads. It paves the way for bundling programs.

## **4. Public service promotion**

ARAGAST B's products are very well suited for public service promotions. The company has already provided copies of its Hyperguide to Armenia and Virtual Museum products to the Foreign Ministry of Armenia to present as official gifts to visiting diplomats. The company will develop high-profile promotional campaigns on Armenia in selected foreign markets.

## **H. Pricing Policy and Strategy**

ARAGAST B intends to offer the highest value for its products. However, due to general economic upheaval and rapid market evolution, the company has yet to firmly establish a uniform pricing schedule. It is the Company's intention to develop products under a cost structure which provides a 10-30% net profit margin per product based upon prices that are initially 25% of competitive offerings and gradually

migrate to 75% of competitive prices. The intention is to penetrate markets on price points as well as quality and raise prices as demand and market recognition are firmly established. The company has instituted project management and expense tracking systems for each product/product line to have a cost analysis upon which to base prices.

The pricing strategy for ARAGAST B is based upon the extremely low operating costs and a targeted rate of return based upon market assessments and an independent cost-benefit analysis. Since start-up costs are low and labor, facility and overhead expenses are some of the lowest in the world (*The Economist*, 7/30/94; Source: Towers Perrin, Werner International) the cost structure is very advantageous. The imported equipment consists of computers, many of which are bought used at deep discounts, new software and diskettes. In addition, limited quantities of state-of-the-art equipment are imported to ensure that the products of ARAGAST B keep abreast of the latest technological developments. Our strategy is to introduce new, innovative products, continually upgrade existing product lines; and, continue to compete aggressively in the price environment through our very low cost structure.

The normal industry practice is to develop price structures on new technologies and applications by optimizing a price based upon market demand, development cost plus a healthy margin that allows maneuvering space to reduce price in the face of strong competition. When entering competitive markets the above is followed with the additional parameter of the established competition's price structure added as a pricing factor. Specialized application programs for individual customers are subject to negotiation with the client. ARAGAST B follows these guidelines with additional room for motion due to the advantageous cost base.

As the plan for ARAGAST B's further success is expansion into the international marketplace exportation is a critical factor. It is not anticipated that any extraordinary complications with respect to import/export considerations will be encountered since it is not a large factor in this type of business. With Armenia's access to the Internet in the fall of 1994, ARAGAST B's capacity to export software and exchange technology and information is greatly enhanced.

#### Bundling

The company already bundles its family of Armenian and Russian fonts and intends to expand this marketing concept in the following manner: 1) Language tools such as DICTA and Fonts can be bundled with ARAGAST B's system-level software such as ArBank and ARAG Accounting as they relate to specific markets; 2) Language tools are also suitable for bundling with regional original equipment manufacturers and hardware retailers. For example, sales of new computers in Middle East countries could be sold with Arabic fonts and dictionaries which are essential tools for immediate use. 3) Multimedia titles are also suitable for mass bundling with hardware and software distributors. In the future, Virtual Museum and Hyperguide editions on similar subjects will be bundled together. Although bundling arrangements increase sales volumes at the expense of profit margin, they are also an effective

marketing tool for penetrating new markets without necessarily building a large sales and marketing infrastructure for that product.

In addition, ARAGAST B has developed a preliminary systems integration capability with its system-level software as it already procures hardware from the U.S. and Asia to install its ARBANK System and other networked database products as complete, turnkey solutions. ARAGAST B will continue this policy, and will establish long-term relationships with hardware suppliers to increase its margins on complete systems.

### **I. Marketing Department Structure**

ARAGAST B plans to establish a Product Marketing department and intends to hire 33 professionals at a management level during 1995. They will assume the following responsibilities:

- Develop marketing plans based upon market research and budget allotments
- Monitor customer needs (market surveys, focus groups)
- Attend trade shows
- Develop contacts with advertisers, retailers, industry publishers, strategic partners and competitors
- Monitor the product collaterals, inventory
- Approve final releases (after testing)
- Coordinate with Public Relations
- Plan each product's forecast sales, budget and estimated human, financial and material resources
- Appropriate Background
  - Prior expertise in software product/project management
  - Prior marketing and strategic experience in both CIS and Western country
  - Excellent interpersonal and coordination skills
  - Excellent educational background in both CIS and abroad
- Reporting

The CEO would directly supervise product marketing, which would consist of 11 product marketing managers (one for each major product family) and one VP.

## **J. New Business Development Strategy**

Until recently, ARAGAST B's products have been aimed at small, specialized markets. At the same time, the company has created a wide network of contacts around the world.

A successful new business development effort is determined by three factors:

- a. Meticulous and thorough identification of market segments and potential clients. Much "cold-calling" is wasted on prospect lists that are outdated or inaccurate. The new business development unit will spend a considerable amount of time preparing sales lists that will yield more fruitful sales calls.
- b. Professional and accurate communication with potential clients. All sales calls should be immediately followed with a personalized written correspondence that includes ARAGAST B's company literature. All outgoing correspondence should be logged, and checked by at least one person other than the originator of the letter.
- c. The sales "pipeline" should be continually fed with new contacts, and all pending relationships should be periodically, but systematically, reviewed. Salespersons should use sales meetings to compare notes and offer suggestions on particular cases and accounts.

### **1. Technology Presentation Center**

The Komitas Street offices of the company will be devoted to ARAGAST B's marketing department. An integrated information management, document generation and presentation system will allow the salesforce to maximize the company's success ratio with potential clients. The complex will include a state-of-the-art technology presentation centre to showcase ARAGAST B's software products and hardware offerings.

### **2. Distribution Channel Development**

As mentioned above, ARAGAST B has chosen to grant distribution rights to strategic marketing partners in key markets. These marketing partners may be hardware and software retailers, distributors, hardware manufacturers, software developers, publishing houses or independent organizations. The marketing department will monitor the performance of each of these partners, and will provide marketing and technical support to ensure the proper representation of the company's products in these markets. As the portfolio of products becomes more complex, the company will diversify its network of distributors in order to more effectively compete in specialized markets.

### 3. Board of Advisors

ARAGAST B derives a considerable portion of its in-depth market data, technical insight and competitive analysis from its board of technical advisors who regularly meet with ARAGAST B senior management. These advisors hold positions in both academic research institutes and private computer software development firms in the CIS and US.

## VII. FINANCIAL INFORMATION

*This chapter begins with notes and explanations of the financial tables which are presented at its end.*

### A. INCOME STATEMENTS AND PROJECTIONS

#### 1. INCOME STATEMENT FOR YEARS May - December 1992,1993,1994.

This statement presents the official income situation as reported to the fiscal authorities - Rates of exchange used for conversion<sup>\*)</sup> from roubles and drams to US dollars are as follows:

end of 1992 - 1 USD = 200 roubles

end of 1993 - 1 USD = 65 drams

May of 1994 - 1 USD = 400 drams

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<sup>\*)</sup> *These are commercial rates of exchange*

#### 2. PROJECTION OF INCOME AND EXPENSES

*(N.B. Refer also to page 3 of each product work-sheet in Annex 2, which provides additional detailed explanations of the assumptions and hypotheses used)*

#### SALES

Market growing rapidly, but not for all types of software in all regions at the same time, for example there is need for business software as tailored to the specific requirements of the Eastern market as compared to the multimedia software supplied to the Western markets. For example, the number of banking software to be sold in Russia is based on the information published in Russian periodicals (there are approximately 2,000 banks and more than 8,000 branches). Past experience, rapidly changing banking environment



and growing interest to the Aragast's banking program show that Aragast B can rely on about 10% of market share. See Annex 1.

Expected life cycle of a product is reflected through the annual sales totals;

#### **PERSONNEL COSTS**

Includes local staff and consultancy figures (as explained in the work-sheets in Annex 1). Local staff salaries make provision for an anticipated growth in course of time in order to attract and retain the best experts. Consultants' salaries are comparable to current rates in the Western countries

#### **TRAINING**

With a high innovation rate there is a permanent need for personnel training to keep pace with the latest developments in the industry.

#### **SYSTEM DEVELOPMENT**

The initial investment rate is comparatively high in the first three years, but will steadily decrease thereafter, hence indicating conversion to a maintenance mode.

- Hardware depreciation is included since figures are based on actual leasing costs

#### **MARKETING STRATEGY**

The strategy is to come out with relatively low initial prices to get established on the market. It is anticipated that the prices may be raised as the products become more widely known through new versions of the software. Strategically it is important to foresee that some products can be bundled.

#### **OTHER PRODUCTION COSTS**

Sales dependent (see worksheets in Annex 1 for each product).

#### **RESEARCH AND DEVELOPMENT**

It is assumed that the sum of system development costs and research and development equals approximately the same amount (total) for each year of the business plan, since in the later period of time the need for research and development becomes greater because of the ageing of the product. R & D costs are calculated as a percentage of total direct costs. This percentage varies between 4% and 15% according to the product. (See Annex 1).

**PREPARATION OF THE BUSINESS PLAN**

Preparation of the Business Plan has actually already occurred, and its price is comparable with the cost for preparing similar existing business plans.

*(cf. the recent Business Plan preparation budget for the establishment of a Private Investment Finance Corporation in Armenia - a much simpler plan to prepare - was estimated by the E.B.R.D. at 180'000 Ecus).*

**UNPAID RECEIVABLES**

Unpaid receivables figures are based upon the common rates used by the Western companies and are estimated at:

1% - of sales income the first two years;

2% - of sales income other years.

**OWNER / MANAGEMENT**

Have been fixed at the same level for all seven years because these are the very topmost managers whose number is not expected to increase over time (see summary table of personnel in V. MANAGEMENT).

**ADMINISTRATIVE PERSONNEL COSTS**

These figures are expected to decrease over time because the greatest product development activity takes place in early years with centralised middle management. In later years individual product managers are expected to become more autonomous and to be able to manage their activities with less central management support.

**RENTAL COSTS**

Rental costs include rent for the premises and for furniture.

Rental costs are going up due to the anticipated expansion of the staff both in Armenia and in different countries. High figures for the first two years are due to the greater use of consultants, and marketing/salesmen.

**REPAIRS**

Initial renovation of office premises is a must in Armenia including some infrastructural repairs but are somewhat less in other C.I.S. countries. That is the reason why the costs are high in the first year. Later on, during the period of expansion to other countries the rental costs will grow and the repair costs will tend to drop.

**TRANSPORTATION**

Local transport costs only.

**COMMUNICATION**

Very low initial costs, but expected to grow over the seven year period.

**BUSINESS TRIP**

Very low initial costs, but expected to grow over the seven year period.

**POWER**

Steady growth of power consumption (at estimated rate USD 5'000 a year)

**ADMINISTRATION**

Year 1 = 1% of total direct costs for year 1

Year 2 = 2% of total direct costs for year 2

Year 3 = 3% of total direct costs for year 3

Year 4 = 4% of total direct costs for year 4

Year 5 = 5% of total direct costs for year 5

Year 6 = 4% of total direct costs for year 6

Year 7 = 5% of total direct costs for year 7

**ADVERTISING**

Global advertising for Company is expected to drop slightly the last two years (the 6th and the 7th) as it is assumed that both the stable market name and position are achieved by the end of the fifth year.

**INSURANCE / LEGAL**

Our legal insurance and legal costs are expected to grow over the period.

**TAXES / PERMITS / LICENSES**

Allowance has been made for this cost to increase steadily over the seven years.

**B. BALANCE SHEETS AND PROJECTIONS**

*N.B. Value of intellectual property of Aragast B*

*Although not reflected in the balance sheet for 1992-1994, the intellectual property of Aragast B is considerable. We conservatively estimate this value as follows:*

*a) The table below shows the net income over seven years of the eleven products included in the Business Plan (ranked by size of net income).*

NET INCOME PER PRODUCT OVER 7 YEARS (1995- 2001)

Product	Net income (in US\$ 000)	Average net income (in US\$ 000)	Average net income x 50% ( in US\$ 000)
MAJOR PRODUCTS			
Accounting system	8'422	6'208	\$ 3'104
ARBANK	6'742		
Med Man	5'611		
Dicta	5'512		
SYSLAM	4'752		
MINOR PRODUCTS			
Virtual Museum	3'193	2'533	\$ 1'276
Educational products	3'185		
Hyperguide	2'951		
SWICS	2'671		
ARB Assistant	2'296		
Service Dept	1'023		
<b>TOTAL</b>	<b>46'356</b>		

b) These eleven products have been labeled as either major (revenue producing) or minor (revenue producing), and their average net revenue over seven years has been calculated as US\$ 6'208'000 for major products, and US\$ 2'553'000 for minor products.

c) However it should be noted that the figures in columns 2 and 3 exclude indirect costs which are 50% of total net income (US\$ 23 m. as compared US\$46 m.). Accordingly, the average for each category of product has been reduced by half to compensate for the indirect costs

d) If we assume that the intellectual property value of our existing products is only 10% of the total average adjusted net revenue for each class of products, we arrive at figures of US\$310'000 for major products and US\$ 128'000 for the minor ones.

*e) Using the intellectual property values explained above in paragraph (d) and excluding those of very low profitability in the table above, we arrive at the following estimates of the value of Aragast B's intellectual property in 1992, 1993 and 1994:*

	<i>Number of products</i>			<i>Estimated value (US\$ 000)</i>		
	1992	1993	1994	1992	1993	1994
<i>Major</i>	3	3	7	930	930	2'170
<i>Minor</i>	3	9	9	384	1'152	1'152
<b>Total</b>	<b>6</b>	<b>12</b>	<b>16</b>	<b>1'314</b>	<b>2'082</b>	<b>3'322</b>

#### **1. BALANCE SHEET FOR YEARS MAY-DECEMBER 1992, 1993, 1994.**

This statement presents the official income situation as reported to the fiscal authorities

#### **2. BALANCE SHEET PROJECTIONS**

Because of unstable political and economical situation it is very difficult and even not necessary to make balance sheet projections. It is just estimated that bills will be paid by clients 2 months after they are sent, and that bills will be paid by ARAGAST B one month later after they have been received.

The figure of US\$ 2'500'000 shown for intellectual property for all years, is slightly more than the average of the three years of 1992-1994 ( as explained in the italicized note above).

#### **C. CASHFLOW STATEMENTS**

(Self explanatory)

#### **D. DOWNSIDE PROJECTIONS**

The assumption for the downside projections is that sales will be only 75% of the baseline estimate of sales. The baseline estimates are already conservative, since it is anticipated that at least two of the products (without knowing which ones) may well prove to be so popular that their actual sales may be up to four times the baseline estimates. The downside percentage (less 25%) may be compared to the composite risk estimate of only 3.5% (see III, Section G).

**INCOME STATEMENT FOR YEARS MAY-DECEMBER 1992,1993,1994\***

	1992		1993		1994	
	Roub(000)	US\$	Roub(000)	US\$	Dr(000)	US\$
<b>GROSS PROFIT</b>	36954.6	105585	68610	17153	1390.8	3521
OPERATING EXPENSES	39981.3	114232	36203	9051	666.8	1688
INTEREST EXPENSE						
LOCAL BORROWING		7623	30492	7623	1239	3137
OTHER INCOME(LOSS)			1785	446	-15	-38
PROFIT BEFORE TAX (LOSS)	-3026.7	-8653	3700	925	-530	-1342
TAX			1084.8	271		
<b>NET INCOME</b>			2615	8654		

\* Figures for sales and direct costs are not available



**CASHFLOW STATEMENT BY QUARTER**

	YEAR 6		YEAR 7		YEAR 8		TOTAL				
	Q1	Q2	Q1	Q2	Q1	Q2					
<b>TOTAL SALES</b>	3,939,469	3,455,844	2,918,125	3,174,590,623	2,730,062	2,457,056	1,820,042	1,820,042	5,100,208	1,229,115	577,387,262
<b>DIRECT COSTS</b>											
PERSONNEL COST	244,063	244,063	244,063	\$976,251	204,549	204,549	204,549	204,549	\$818,195	0	\$10,492,371
TRAINING	5,971	5,971	5,971	\$23,885	4,911	4,911	4,911	4,911	\$19,642	0	\$249,603
SYSTEM DEVELOPMENT	12,176	12,176	12,176	\$48,705	5,863	5,863	5,863	5,863	\$23,451	1,804	\$2,164,662
MARKETING STRATEGY	22,612	22,612	22,612	\$90,450	10,887	10,887	10,887	10,887	\$43,550	3,350	\$4,019,982
PRODUCTION COSTS	229,089	343,634	343,634	\$1,145,447	157,889	236,833	236,833	236,833	\$789,444	63,298	\$6,442,310
RESEARCH & DEVELOPMENT	95,576	114,691	114,691	\$382,305	67,319	112,198	134,638	134,638	\$448,192	0	\$1,662,194
<b>TOTAL DIRECT COSTS</b>	609,488	743,148	743,148	\$2,667,041	451,417	496,296	597,680	597,680	\$2,143,074	68,452	\$25,031,121
<b>INDIRECT ADMIN COSTS</b>											
PREP OF THE BUSINESS PLAN	0	0	0	\$0	0	0	0	0	\$0	0	\$300,000
UNPAID RECEIVABLES	63,342	63,342	63,342	\$253,369	41,933	41,933	41,933	41,933	\$167,731	0	\$1,402,415
OWNER/MANAGEMENT	108,000	108,000	108,000	\$432,000	108,000	108,000	108,000	108,000	\$432,000	0	\$3,024,000
ADM. PERSONNEL COSTS	14,644	14,644	14,644	\$58,275	12,273	12,273	12,273	12,273	\$49,092	0	\$629,542
RENTS	81,250	81,250	81,250	\$325,000	81,250	81,250	81,250	81,250	\$325,000	0	\$1,675,000
REPAIRS	6,014	6,014	6,014	\$24,055	4,831	4,831	4,831	4,831	\$19,324	10,549	\$455,602
TRANSPORTATION	8,021	8,021	8,021	\$32,083	8,021	8,021	8,021	8,021	\$32,083	10,417	\$193,000
COMMUNICATION	2,237	2,237	2,237	\$8,949	1,875	1,875	1,875	1,875	\$7,500	4,937	\$103,698
BUSINESS TRIP	6,712	6,712	6,712	\$26,847	1,875	1,875	1,875	1,875	\$7,500	8,523	\$138,439
POWER	6,875	6,875	6,875	\$27,500	6,875	6,875	6,875	6,875	\$27,500	9,167	\$175,000
ADMINISTRATION	26,241	26,241	26,241	\$104,965	26,351	26,351	26,351	26,351	\$105,403	0	\$760,812
ADVERTISING	362,500	362,500	362,500	\$1,049,652	263,506	263,506	263,506	263,506	\$1,054,026	0	\$7,608,116
INSURANCE/LEGAL	37,500	37,500	37,500	\$1,450,000	375,000	375,000	375,000	375,000	\$1,500,000	0	\$6,450,000
TAXES/PERMITS/LICENSES	985,749	985,749	985,749	\$3,942,995	981,790	981,790	981,790	981,790	\$3,971,159	43,592	\$23,640,624
<b>TOTAL INDIRECT COSTS</b>	1,595,237	1,728,897	1,728,897	\$6,610,036	1,433,207	1,478,086	1,579,470	1,579,470	\$6,070,233	112,044	\$48,671,745
<b>INTEREST EXPENSE</b>	0	0	0	\$0	0	0	0	0	\$0	0	(\$7,040,823)
<b>CASH FLOW DEFICIT</b>	2,344,232	1,636,947	1,189,228	\$7,980,589	1,296,856	978,970	513,578	240,572	\$3,029,975	1,117,071	\$15,674,796



**CASHFLOW STATEMENT BY QUARTER**

	YEAR 3		YEAR 4		YEAR 5		YEAR 6		TOTAL 5	TOTAL 6	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
<b>TOTAL SALES</b>	3,372,889	3,693,744	3,854,342	4,175,537	4,336,115	4,518,447	4,714,901	5,107,809	5,304,463	5,796,420	4,377,137
<b>DIRECT COSTS</b>											
PERSONNEL COST	334,653	293,771	293,771	293,771	293,771	273,977	273,977	273,977	273,977	\$1,095,907	244,063
TRAINING	7,826	7,002	7,002	7,002	7,002	6,733	6,733	6,733	6,733	\$26,933	5,971
SYSTEM DEVELOPMENT	87,939	41,489	41,489	41,489	41,489	27,960	27,960	27,960	27,960	\$111,841	12,176
MARKETING STRATEGY	171,687	666,747	77,050	77,050	77,050	51,925	51,925	51,925	51,925	\$207,699	22,612
PRODUCTION COSTS	317,679	267,856	267,856	401,784	401,784	288,021	432,032	432,032	432,032	\$1,440,107	229,089
RESEARCH & DEVELOPMENT	49,866	37,999	62,332	74,799	74,799	49,866	83,110	99,732	99,732	\$332,439	57,346
<b>TOTAL DIRECT COSTS</b>	969,649	724,567	749,500	895,894	895,894	698,492	731,726	892,459	892,459	\$3,214,926	571,258
<b>INDIRECT ADMIN. COSTS</b>											
PREP. OF THE BUSINESS PLAN	0	0	0	0	0	0	0	0	0	\$0	0
UNPAID RECEIVABLES	50,377	87,779	87,779	87,779	87,779	100,839	100,839	100,839	100,839	\$403,356	63,342
OWNER/MANAGEMENT	108,000	108,000	108,000	108,000	108,000	108,000	108,000	108,000	108,000	\$432,000	108,000
ADM. PERSONNEL COSTS	20,079	17,626	17,626	17,626	17,626	16,439	16,439	16,439	16,439	\$65,754	14,644
RENTS	50,000	62,500	62,500	62,500	62,500	81,250	81,250	81,250	81,250	\$325,000	81,250
REPAIRS	11,328	7,876	7,876	7,876	7,876	7,361	7,361	7,361	7,361	\$29,443	6,014
TRANSPORTATION	6,104	7,604	7,604	7,604	7,604	8,021	8,021	8,021	8,021	\$32,083	8,021
COMMUNICATION	6,587	8,249	8,249	8,249	8,249	2,511	2,511	2,511	2,511	\$10,046	2,237
BUSINESS TRIP	6,146	6,354	6,354	6,354	6,354	6,875	6,875	6,875	6,875	\$10,046	6,712
POWER	26,830	32,451	32,451	32,451	32,451	40,149	40,149	40,149	40,149	\$160,596	26,241
ADMINISTRATION	268,300	324,515	324,515	324,515	324,515	401,490	401,490	401,490	401,490	\$1,605,959	262,413
ADVERTISING	125,000	312,500	312,500	312,500	312,500	337,500	337,500	337,500	337,500	\$1,350,000	362,500
INSURANCE/LEGAL	18,750	25,000	25,000	25,000	25,000	31,250	31,250	31,250	31,250	\$125,000	37,500
TAXES/PERMITS/LICENSES	703,884	1,003,319	1,003,319	1,003,319	1,003,319	1,144,196	1,144,196	1,144,196	1,144,196	\$4,576,783	985,749
<b>TOTAL INDIRECT COSTS</b>	1,673,534	1,727,886	1,752,818	1,899,213	1,899,213	1,842,678	1,875,922	2,036,555	2,036,555	\$7,791,709	1,557,006
<b>TOTAL COSTS</b>	(438,180)	(1,083,931)	(415,254)	(395,725)	(369,119)	(831,695)	(309,423)	(293,345)	(251,109)	(\$1,685,573)	0
<b>INTEREST EXPENSE</b>											
<b>CASH FLOW DEFICIT</b>	1,261,176	\$76,890	881,928	1,686,269	1,880,599	2,067,803	2,529,556	2,777,909	3,016,600	\$10,168,138	2,820,181

CASHFLOW STATEMENT BY QUARTER													
	YEAR 1			YEAR 2			YEAR 3			TOTAL 2	TOTAL 3	TOTAL 4	
	Q1	Q2	Q3	Q4	TOTAL 1	Q1	Q2	Q3	Q4				Q1
<b>TOTAL SALES</b>		134,758	161,709	242,564	552,030	324,468	373,138	438,032	486,702	\$1,622,340	843,222	1,855,089	2,522,667
<b>DIRECT COSTS</b>													
PERSONNEL COST	730,603	730,603	730,603	730,603	\$2,922,412	541,478	541,478	541,478	541,478	\$2,165,910	334,653	334,653	334,653
TRAINING	17,225	17,225	17,225	17,225	\$68,901	12,733	12,733	12,733	12,733	\$50,933	7,826	7,826	7,826
SYSTEM DEVELOPMENT	498,427	98,427	98,427	98,427	\$793,709	166,859	166,859	166,859	166,859	\$667,437	87,939	87,939	87,939
MARKETING STRATEGY	276,374	276,374	276,374	276,374	\$1,105,495	393,623	393,623	393,623	393,623	\$1,574,487	171,687	171,687	171,687
PRODUCTION COSTS	33,989	33,989	33,989	33,989	\$169,945	87,172	87,172	87,172	87,172	\$353,839	211,786	211,786	211,786
RESEARCH & DEVELOPMENT	2,078	2,078	2,078	2,078	\$8,311	11,220	18,700	22,440	22,440	\$74,799	24,933	41,555	49,866
<b>TOTAL DIRECT COSTS</b>	1,558,696	1,558,696	1,175,691	1,175,691	\$5,068,773	1,213,085	1,220,565	1,267,891	1,267,891	\$4,969,431	838,824	855,446	969,649
<b>INDIRECT ADMIN. COSTS</b>													
PREP. OF THE BUSINESS PLAN	300,000	0	0	0	\$300,000	0	0	0	0	\$0	0	0	0
UNPAID RECEIVABLES	1,684	1,684	1,684	1,684	\$6,738	4,649	4,649	4,649	4,649	\$18,595	50,377	50,377	50,377
OWNER/MANAGEMENT	108,000	108,000	108,000	108,000	\$432,000	108,000	108,000	108,000	108,000	\$432,000	108,000	108,000	108,000
ADM. PERSONNEL COSTS	43,836	43,836	43,836	43,836	\$175,345	32,489	32,489	32,489	32,489	\$129,955	20,079	20,079	20,079
RENTS	25,000	25,000	25,000	25,000	\$100,000	37,500	37,500	37,500	37,500	\$150,000	50,000	50,000	50,000
REPAIRS	36,141	36,141	36,141	36,141	\$144,564	37,713	37,713	37,713	37,713	\$150,853	11,328	11,328	11,328
TRANSPORTATION	3,438	3,438	3,438	3,438	\$13,750	4,438	4,438	4,438	4,438	\$17,750	6,104	6,104	6,104
COMMUNICATION	3,349	3,349	3,349	3,349	\$13,394	5,268	5,268	5,268	5,268	\$21,072	6,587	6,587	6,587
BUSINESS TRIP	3,683	3,683	3,683	3,683	\$14,734	3,065	3,065	3,065	3,065	\$12,259	6,383	6,383	6,383
POWER	3,438	3,438	3,438	3,438	\$13,750	4,896	4,896	4,896	4,896	\$19,583	6,146	6,146	6,146
ADMINISTRATION	13,142	13,142	13,142	13,142	\$52,569	25,038	25,038	25,038	25,038	\$100,153	26,830	26,830	26,830
ADVERTISING	131,422	131,422	131,422	131,422	\$525,688	250,383	250,383	250,383	250,383	\$1,001,532	268,300	268,300	268,300
INSURANCE/LEGAL	31,250	31,250	31,250	31,250	\$125,000	68,750	68,750	68,750	68,750	\$275,000	125,000	125,000	125,000
TAXES/PERMITS/LICENSES	6,250	6,250	6,250	6,250	\$25,000	12,500	12,500	12,500	12,500	\$50,000	18,750	18,750	18,750
<b>TOTAL INDIRECT COSTS</b>	710,633	410,633	410,633	410,633	\$1,942,531	594,688	594,688	594,688	594,688	\$2,378,752	703,884	703,884	703,884
<b>TOTAL COSTS</b>	2,269,329	1,569,329	1,586,323	1,586,323	\$7,011,304	1,807,773	1,815,253	1,862,579	1,862,579	\$7,348,184	1,542,708	1,559,330	1,673,534
<b>INTEREST EXPENSE</b>	0	0	0	0	\$0	(453,866)	(172,149)	(188,770)	(201,564)	\$(1,016,349)	(841,300)	(999,668)	(995,725)
<b>CASH FLOW DEFICIT</b>	-2,269,329	-1,534,571	-1,424,614	-1,343,760	\$(6,472,274)	-1,937,171	-1,614,263	-1,613,317	-1,577,441	\$(6,742,192)	-1,540,785	-103,908	460,408
Total amount needed (for 10 quarters)													
													(514,859,160)

BALANCE SHEET FOR MAY - DECEMBER 1992, 1993, 1994\*

	1992		1993		1994	
	Roub.(000)	US\$	Roub.(000)	US\$	Dr.(000)	US\$
<b>ASSETS</b>						
<i>FIXED ASSETS</i>						
Fixtures & Fittings	3318.9	9483	3419	854	20	51
	3990	11400	3990	998	19.9	50
<i>CURRENT ASSETS</i>						
Stock	513.5	1467	78738	19685	435.6	1103
Bank	11	31	9869	2467	0.3	1
Cash			216	54		
Debtors	4529.4	12941	59025	14756	1509	3820
Loss	5778.1	16509	22858	5715	958.7	2427
Investment					1000	2530
<b>TOTAL</b>	<b>\$18,141</b>	<b>\$51,831</b>	<b>\$178,115</b>	<b>\$44,529</b>	<b>\$3,944</b>	<b>\$9,982</b>
<b>LIABILITIES</b>						
Capital	10000	28571	10100	2525	50.5	128
Depreciation	645	1843	645	161	3.2	7
Local borrowing	7120	20343	42120	10530	1426	3610
Current Liabilities	375.9	1074	55830	13958	452	1144
Creditors			69420	17355	2011.8	5093
<b>TOTAL</b>	<b>18141</b>	<b>\$51,831</b>	<b>178115</b>	<b>\$44,529</b>	<b>3944</b>	<b>\$9,982</b>

\* Figures for retained earnings are not available



Schedule of Loan Repayment														
LOAN REPAYMENT	YEAR 3			YEAR 4			YEAR 5			TOTAL				
	Q4	TOTAL 3	Q1	Q1	Q2	Q3	Q4	TOTAL 4	Q1		Q2	Q3	Q4	TOTAL 5
ARAGAST(1)			1,261,176					\$1,261,176	1,008,153				\$1,008,153	\$2,269,329
EBRD(1)								\$881,928					\$881,928	\$1,434,571
EBRD(2)							881,928	\$830,725	552,643				\$830,725	\$830,725
COMMERCIAL BANK(1)							593,890	\$593,890					\$593,890	\$593,890
COMMERCIAL BANK(2)	460,408	\$460,408					883,351	\$883,351					\$883,351	\$1,343,760
ARAGAST(2)									1,059,650				\$1,059,650	\$1,937,171
EBRD(3)										422,596			\$422,596	\$422,596
EBRD(4)										868,834			\$868,834	\$1,191,667
COMMERCIAL BANK(3)								\$261,655			906,445		\$906,445	\$1,168,100
COMMERCIAL BANK(4)											445,217		\$445,217	\$445,217
ARAGAST(4)												580,193	\$580,193	\$1,577,441
EBRD(5)								997,248			300,373		\$575,643	\$575,643
COMMERCIAL BANK(5)													\$575,643	\$575,643
COMMERCIAL BANK(6)													\$389,500	\$389,500
TOTAL								\$5,709,972					\$8,688,719	\$14,859,160

Assumption 1: Loan repayments are made in the same quarter that each lender provided the funds;

Assumption 2: Capital repayments will be made as soon as the cash balance is positive.

CASH FLOW SUMMARY									
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	TOTAL
SALES	539,030	1,672,340	8,600,868	16,059,757	19,645,420	14,590,625	9,100,208	1,229,115	\$71,387,363
TOTAL DIRECT COSTS	5,068,773	4,969,431	3,633,568	3,265,855	3,214,926	2,667,041	2,143,074	68,452	\$25,031,121
TOTAL INDIRECT COSTS	1,942,531	2,378,752	2,815,536	4,013,275	4,576,783	3,947,995	3,927,159	43,592	\$23,640,624
TAKING LOAN	6,472,274	6,742,192	1,644,694	0	0	0	0	0	\$14,859,160
PAYING INTEREST	0	1,016,349	2,074,873	2,264,028	1,685,573	0	0	0	\$7,040,823
REPAYING LOAN	0	0	460,408	5,709,972	8,688,779	0	0	0	\$14,859,160
CASH FLOW OVER THE YEAR	0	0	1,261,176	806,627	1,479,359	7,980,589	3,029,975	1,117,071	\$15,674,796

ANNEX 1

**DETAILED WORKSHEETS FOR TWO SAMPLE PRODUCTS  
(INCLUDING ASSUMPTIONS AND HYPOTHESES)**





3. PRODUCTION AND DISTRIBUTION VARIABLE COSTS AND RESEARCH PROVISIONS

3.1 Estimated Product Sales p. a.

	year 1	year 2	year 3	year 4	year 5	year 6	year 7	Total
In Armenia	1	1	0	0	0	0	1	3
Other CIS	1	7	0	0	0	0	0	8
Middle East	1	2	0	0	0	0	0	3
Other countries	0	1	0	0	0	0	0	1
	3	11	0	0	0	0	1	15

Av. annual sales (units) per salesperson:

Three principal client countries:

3.2 Production (non-development) Costs

	/package	Total
Reproduction of software and packaging	5	75
Shipping and distribution	5	75
Client hotline service	2	30
... subtotals	12	180

3.3 Research & Development (% p.a.)  = US\$

4. SUMMARY STATISTICS

4.1 Total Variable Costs less R. & D. (2.5 + 3.2)

4.2 Total Variable Costs incl. R. & D. (4.1 + 3.3)

4.3 Unit Cost = US\$  (excluding fixed costs)

Unit price (for the first and second years) = US\$

for the third year

for the fourth and fifth years

for the sixth and seventh years

Competitors' market unit price \$

Sales costs : total-costs ratio:	<input type="text" value="21%"/>
Sales salaries : total-sales costs ratio	<input type="text" value="78%"/>

4.4 Total Variable Costs and Percentage Distribution by Year

	year 1	year 2	year 3	year 4	year 5	year 6	year 7	Total
Percentage	22%	21%	17%	12%	10%	6%	9%	100%
Costs	580,969	543,647	448,458	313,030	253,429	244,375	241,325	2,625,233

	year 1	year 2	year 3	year 4	year 5	year 6	year 7	Total
4.5 Revenue	75,000	275,000	0	0	0	0	30,000	380,000

4.6 Net Income (excluding fixed costs)

## 1 ARBANK

## 5. ASSUMPTIONS AND COMMENTS ON ESTIMATES

2.1 Number of persons column = No. of distinct persons required (who may be replaced during the period covered)

Man-months column = total No. of months each person would work between the start-date and the end-date of the project

Personnel costs/mo. = monthly costs of salaries plus all allowances, taxes and pensions for staff, = \$20,000 per month (major product fee rate) plus \$5,000 (travel and per diem) for consultants.

Total costs column = (No. of persons) x (Man-months) x (Personnel costs/mo.)

MAN-MONTHS	year 1	year 2	year 3	year 4	year 5	year 6	year 7
Managers	24	12	6	6	4	4	4
Analysts	18	12	6	6	6	6	6
Programmers	72	72	54	18	18	18	18
Clerks/Secretaries	12	12	12	6	6	6	6
Consultants	9	9	9	6	4	4	4

Marketing/Salesmen = total salaries for seven Marketing/Salesmen = total salaries for five years pro-rated the following way: the first year - 30%, the second year - 18%, the third year - 16%, the fourth year - 14%, the fifth year - 12%, the sixth year - 11%, and the seventh year - 9%.

No. of man-months per Technician = (estimated no. of sales / No. of technicians) (i.e. a man-month per system sale)

2.2 Staff-months = Sum (staff members x corresponding man-months)

Training man-months = Staff-months/12 (i.e. 1 man-month per staff-year)

Cost per man-month trained = \$400 per staff-year

2.3 EDP hardware purchases = \$2,800 per staff-year (technicians and clerks-secretaries count as half)

Hardware cost per staff-year = computer (\$1,500) + modem & printer (\$300) + network (\$1,000)

EDP software purchases = 15% of hardware purchases

Package design = \$10,000 (Higher rate for complex system)

Other development costs = \$800 in each of years 1-4.

2.4 Advertising costs = Total expected sales (baseline estimate)\*\$800

Communications = Total expected sales (baseline estimate)\*\$300

Documentation = \$3000 per annum

Exhibitions = Total expected sales (baseline estimate)\*\$350

Translation costs = 500(number of pages)\*\$7.5 (the average translation cost per page)\*5 (number of languages)

Travel = (number of salesman-months/12)\*\$1800 (budget for one year)

3.1 The main market foreseen is Russia (where we already have extensive experience) and other CIS republics where we have excellent commercial contacts in the field of banking and finance.

3.2 Total production costs = (Total expected sales x cost per package)

Cost per package is based on standard (actual) 1994 costs

Shipping and distribution is lower rate (because of proximity of main market)

3.3 R. & D. expenditures of competitors are expected to be of the order of

5 - 15% of turnover. The 10% provision is in the middle of this range.

This R. & D. provision is justified by the prospect of extending the scope of the system to cover new aspects of banking activities as and when they become important.

4.3 Competitors' market unit price is the minimum current price in Europe for comparable software.

4.4 The distribution by year of the cost estimates is based on the assumptions listed above for Sections 2.1 to 3.3.

MAN-MONTHS	year 1	year 2	year 3	year 4	year 5	year 6	year 7	Total
Managers	2.0	1.0	0.5	0.5	0.3	0.3	0.3	5.0
Analysts	1.5	1.0	0.5	0.5	0.5	0.5	0.5	5.0
Programmers	6.0	6.0	4.5	1.5	1.5	1.5	1.5	22.5
Clerks/Secretaries	1.0	1.0	1.0	0.5	0.5	0.5	0.5	5.0
Marketing	7.3	6.6	5.9	5.1	4.4	4.0	3.3	36.7
Technicians	0.3	0.3	0.3	0.3	0.1	0.1	0.1	1.3
Consultants	0.8	0.8	0.8	0.5	0.3	0.3	0.3	3.8

**BUSINESS PLAN FORECAST ESTIMATE WORKSHEET: ARAGAST B Corporation**

Product Family No. 2 Start date: 1-Jan-95  
 Product Name SWICS End date: 31-Dec-01 Currency:- US\$ (constant 1994)

**1. PRINCIPAL STEPS**

		year 1	year 2	year 3	year 4	year 5	year 6	year 7
2.1	Module to control Work-in-Progress (WIP)	x						
2.2	Module to control & Distribute raw materials/sub-assemblies		x					
2.3	Conform product to MRP II		x	x				
2.4	Migration to Windows, OS/2 and UNIX			x				

**2. PRODUCT DEVELOPMENT AND MARKETING VARIABLE COSTS OVER SEVEN YEARS**

**2.1 Personnel Costs (Direct)**

Type	Number of persons	Man - months	Personnel costs/mo.	Total costs	year 1	year 2	year 3	year 4	year 5	year 6	year 7
Managers	1	57	1,500	85,500	18,000	18,000	13,500	9,000	9,000	9,000	9,000
Analysts	2	13	1,200	31,200	14,400	9,600	2,400	1,200	1,200	1,200	1,200
Programmers	6	21	950	119,700	57,000	45,600	5,700	3,800	1,900	3,800	1,900
Marketing/Salesmen	8	18	900	129,600	25,920	23,328	20,736	18,144	15,552	14,256	11,664
Technicians	3	3	1,000	10,000	2,167	7,833	0	0	0	0	0
Clerks/Secretaries	1	44	300	13,200	3,600	3,600	1,200	1,200	1,200	1,200	1,200
Consultants	1	5	20,000	100,000	40,000	40,000	20,000	0	0	0	0
<b>NON-STAFF</b>											
		22		489,200	161,087	147,961	63,536	33,344	28,852	29,456	24,964

**2.2 Training Requirements for Staff**

staff	staff-months	training man-months	cost US\$ (\$400/m-m)
21	407	34	13,567

**2.3 System Development Costs**

EDP hardware purchases	88,667
EDP software purchases	13,300
Package design	10,000
Other costs for development	2,800
...subtotal	114,767

**2.4 Marketing Strategy and Costs**

(Description of strategy)..... Exhibitions, personal contacts, fax, use of existing sales network in client countries

Advertising costs	4,500
Communications	1,500
Documentation preparation and reproduction	21,000
Exhibitions	1,800
Translation costs	18,750
Travel	21,600
...subtotal	69,150

**2.5 Subtotal (2.1 + 2.2 + 2.3 + 2.4)** 686,683

## 3. PRODUCTION AND DISTRIBUTION VARIABLE COSTS AND RESEARCH PROVISIONS

## 3.1 Estimated Product Sales p. a.

	year 1	year 2	year 3	year 4	year 5	year 6	year 7	Total
In Armenia	5	10	0	0	0	0	0	15
Other CIS	45	150	0	0	0	0	0	195
Middle East	10	50	0	0	0	0	0	60
Other countries	5	25	0	0	0	0	0	30
	65	235	0	0	0	0	0	300

Av. annual sales (units) per salesperson:

25

Three principal client countries:

1. Russia	2. U.A.E.	3. Ukraine
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## 3.2 Production (non-development) Costs

	/package	Total
Reproduction of software and packaging	5	1,500
Shipping and distribution	2	600
Client hotline service	2	600
... subtotals	9	2,700

## 3.3 Research &amp; Development (% p.a.)

10%

= US\$ 68,938

## 4. SUMMARY STATISTICS

## 4.1 Total Variable Costs less R. &amp; D. (2.5 + 3.2)

689,383

## 4.2 Total Variable Costs incl. R. &amp; D. (4.1 + 3.3)

758,322

## 4.3 Unit Cost = US\$

2,528

Unit price (for the first and second years) = US\$

499

(excluding fixed costs)

for the third year

699

for the fourth and fifth years

799

for the sixth and seventh years

699

Competitors' market unit price US\$

1,000

Sales costs- : total-costs ratio:

26%

Sales salaries- : total-sales costs ratio

65%

## 4.4 Total Variable Costs and Percentage Distribution by Year

	year 1	year 2	year 3	year 4	year 5	year 6	year 7	Total
Percentage	31%	29%	13%	8%	7%	7%	6%	100%
Costs	233,135	219,372	99,779	57,484	52,636	49,807	46,109	758,322

## 4.5 Revenue

	year 1	year 2	year 3	year 4	year 5	year 6	year 7	Total
	32,435	117,265	0	0	0	0	0	149,700

## 4.6 Net Income

(excluding fixed costs)

	(200,700)	(102,107)	(99,779)	(57,484)	(52,636)	(49,807)	(46,109)	-608,622
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## 5. ASSUMPTIONS AND COMMENTS ON ESTIMATES

2.1 Number of persons column = No. of distinct persons required (who may be replaced during the period covered)

Man-months column = total No. of months each person would work between the start-date and the end-date of the project

Personnel costs/mo. = monthly costs of salaries plus all allowances, taxes and pensions for staff;

= \$20,000 per month (major product fee rate) plus \$5,000 (travel and per diem) for consultants.

Total costs column = (No. of persons) x (Man-months) x (Personnel costs/mo.)

MAN-MONTHS	year 1	year 2	year 3	year 4	year 5	year 6	year 7
Managers	12	12	9	6	6	6	6
Analysts	12	8	2	1	1	1	1
Programmers	60	48	6	4	2	4	2
Clerks/Secretaries	12	12	4	4	4	4	4
Consultants	2	2	1	0	0	0	0

Marketing/Salesmen = total salaries for seven years pro-rated the following way: the first year - 20%, the second year - 18%, the third year - 16%, the fourth year - 14%, the fifth year - 12, the sixth year - 11%, and the seventh year - 9%.

No. of man-months per Technician = (estimated no. of sales / No. of technicians / 30)  
(i.e. half a man-month per system sale)

Staff-months = Sum (staff members x corresponding man-months)

Training man-months = Staff-months/12 (i.e. 1 man-weeks per staff-year)

2.2 Cost per man-month trained = \$400 per staff-year

2.3 EDP hardware purchases = \$2,800 per staff-year (clerks-secretaries count as half)(based on actual leasing costs).

Hardware cost per staff-year = computer (\$1,500) + modem & printer (\$300) + network (\$1,000)

EDP software purchases = 15% of hardware purchases

Package design = \$10000 (Higher rate for complex system)

Other development costs = \$933 in each of years 1-3.

2.4 Advertising costs = Total expected sales (baseline estimate)\*\$15

Communications = Total expected sales (baseline estimate)\*\$5

Documentation = \$3000 per annum

Exhibitions = Total expected sales (baseline estimate)\*\$6

Translation costs = 500(number of pages)\*\$7.5(the average translation cost per page)\*5(number of languages)

Travel =(number of salesman-months/12)\*\$1800(budget for one year)

3.1 The main market foreseen is the CIS where we already have sold more rudimentary versions of SWICS. We will be targetting medium- and large-sized private companies (of which, in Russia alone, by 1 July 1994 more than 14,000 had been created).

3.2 Total production costs = (Total expected sales x cost per package)

Cost per package is based on standard (actual) 1994 costs

Shipping and distribution is lower rate (because of proximity of main market)

3.3 R. & D. expenditures of competitors are expected to be of the order of

5 - 15% of turnover. The 10% provision is in the middle of this range.

This R. & D. provision is justified by the prospect of extending the scope of the system to keep it abreast of market developments in coming years.

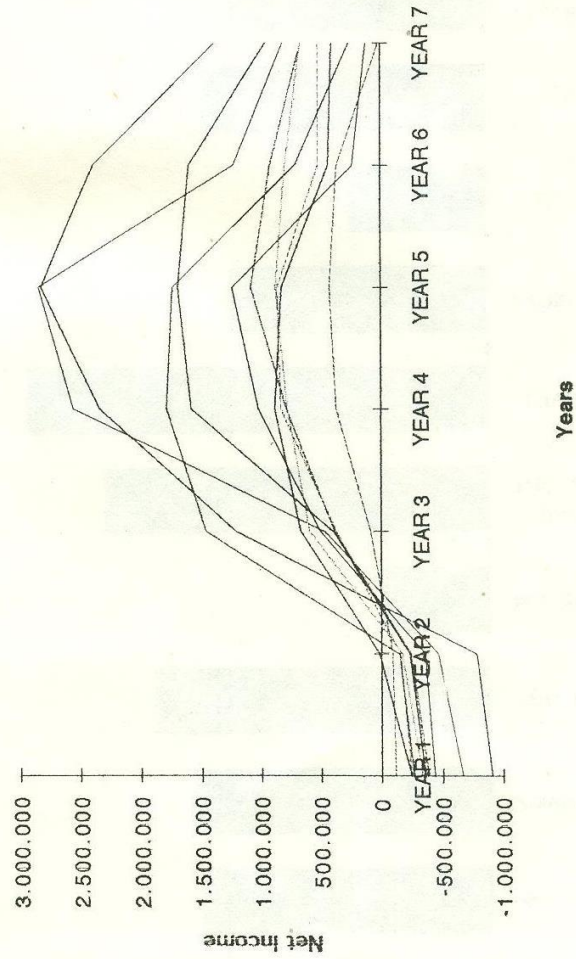
4.4 The distribution by year of the cost estimates is based on the assumptions listed above for Sections 2.1 to 3.3.

MAN-MONTHS	year 1	year 2	year 3	year 4	year 5	year 6	year 7	Total
Managers	1.0	1.0	0.8	0.5	0.5	0.5	0.5	4.8
Analysts	1.0	0.7	0.2	0.1	0.1	0.1	0.1	2.2
Programmers	5.0	4.0	0.5	0.3	0.2	0.3	0.2	10.5
Clerks/Secretaries	1.0	1.0	0.3	0.3	0.3	0.3	0.3	3.7
Marketing	2.4	2.2	1.9	1.7	1.4	1.3	1.1	12.0
Technicians	0.2	0.7	0.0	0.0	0.0	0.0	0.0	0.8
Consultants	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.4

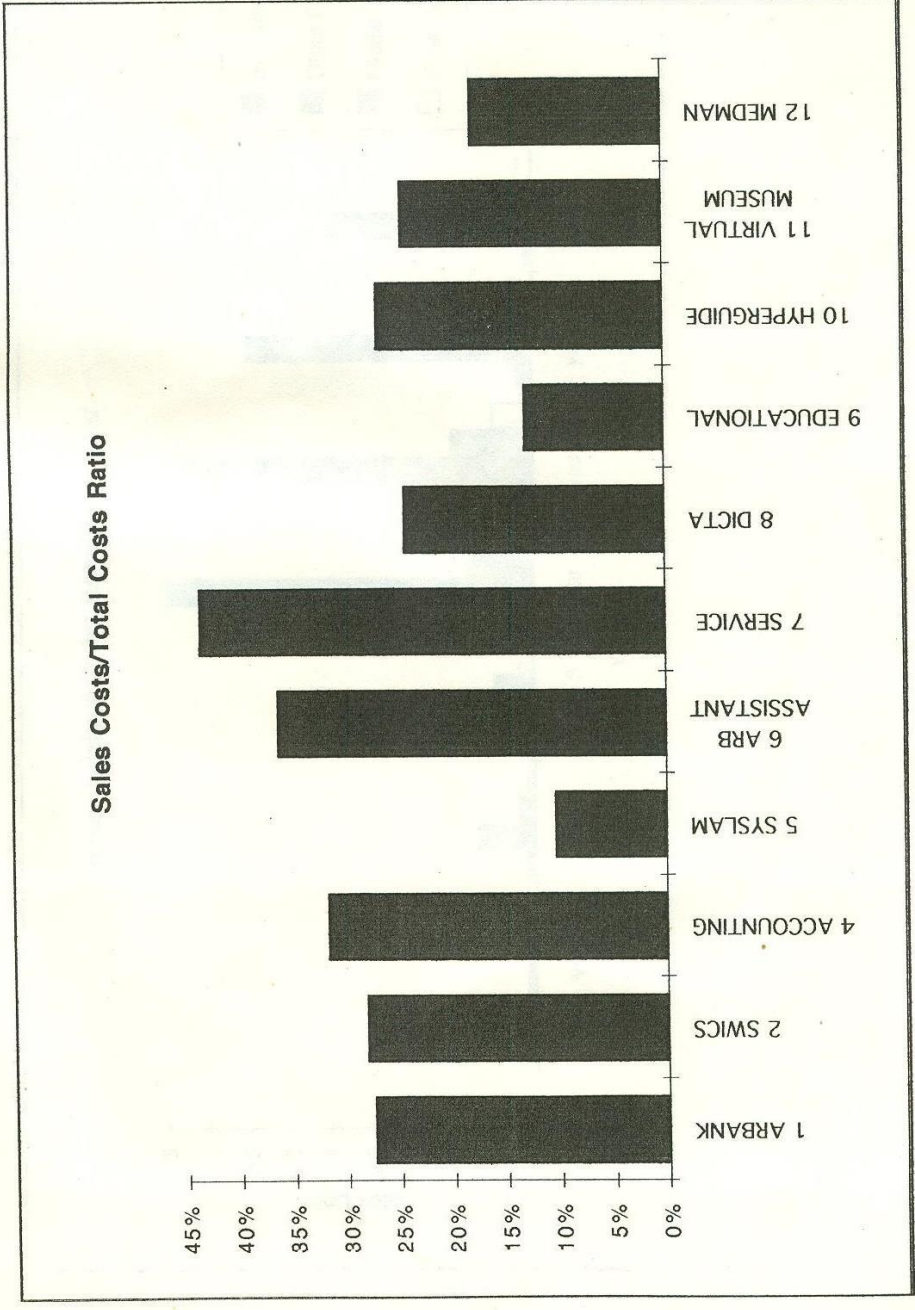
ANNEX 2

**GRAPHICAL REPRESENTATION OF WORKSHEETS**

### Net Income by Year



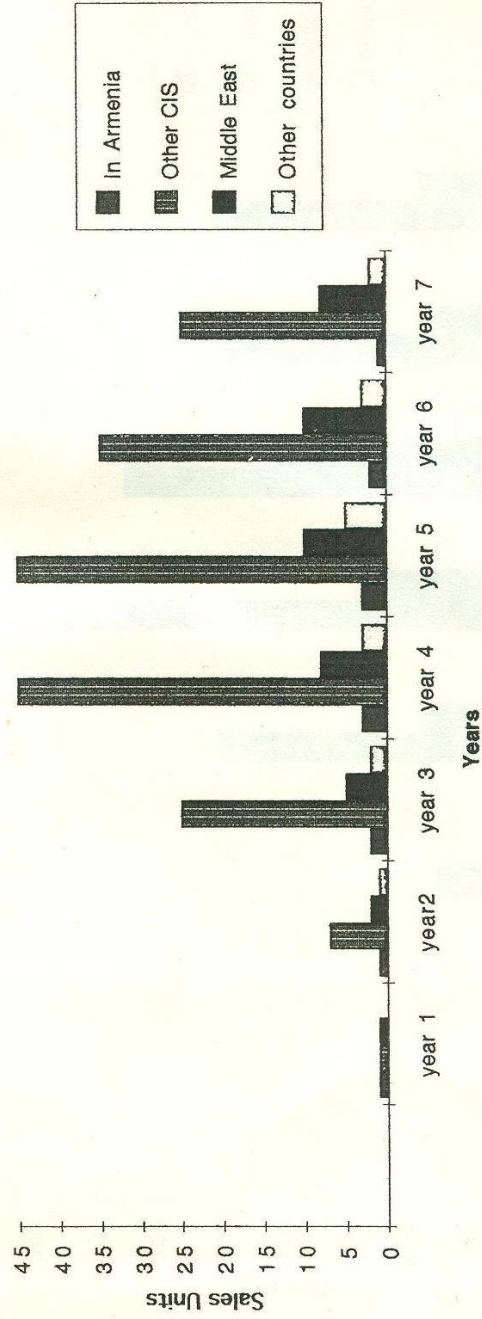
- 1 ARBANK
- 2 SWICS
- 4 ACCOUNTING SYSTEM
- 5 SYSLAM
- 6 ARB ASSISTANT
- 7 SERVICE DEPARTMENT CREATION
- 8 DICTA
- 9 EDUCATIONAL PRODUCTS
- 10 HYPERGUIDE
- 11 VIRTUAL MUSEUM
- 12 MEDMAN



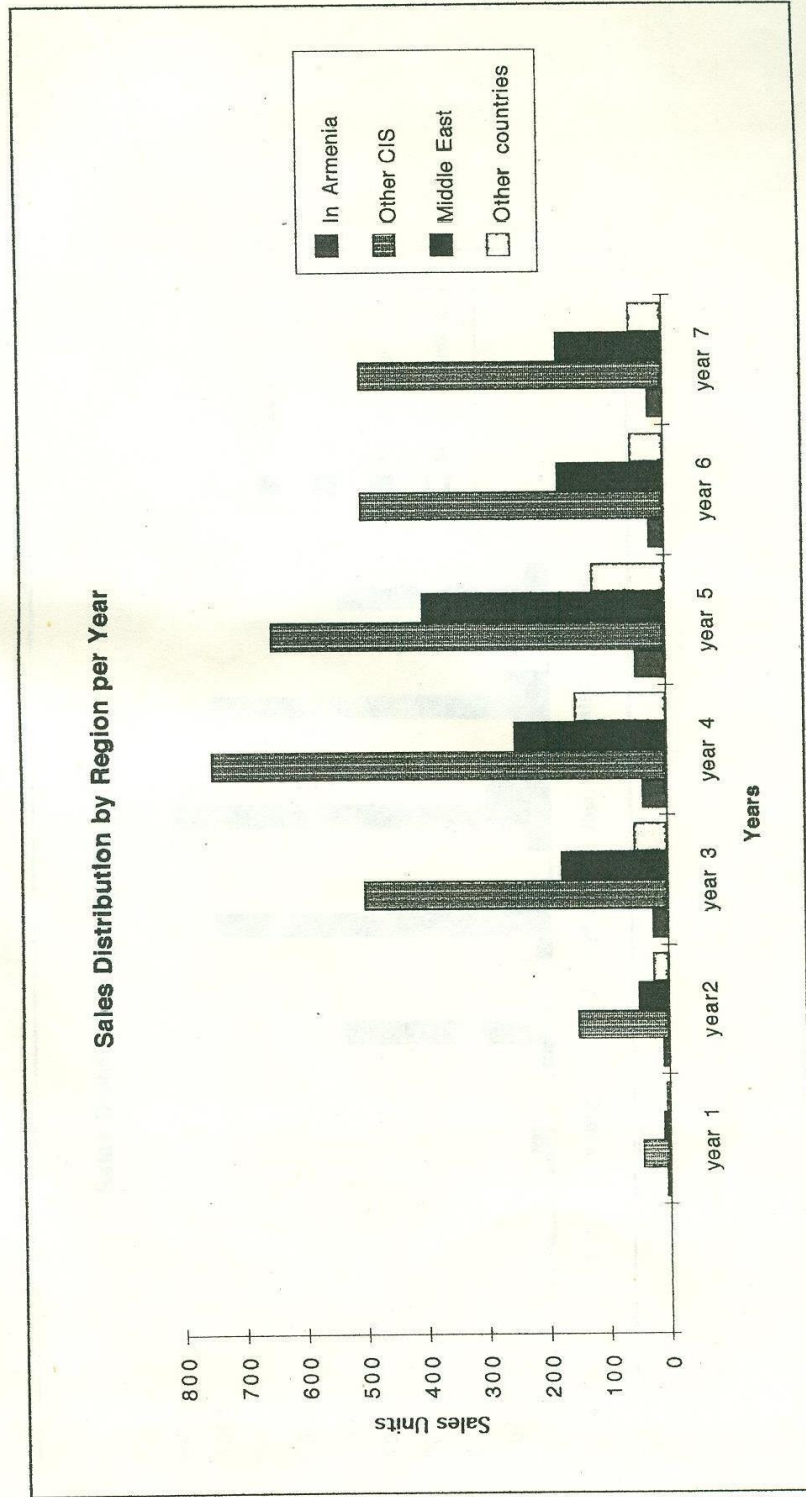


ARBANK

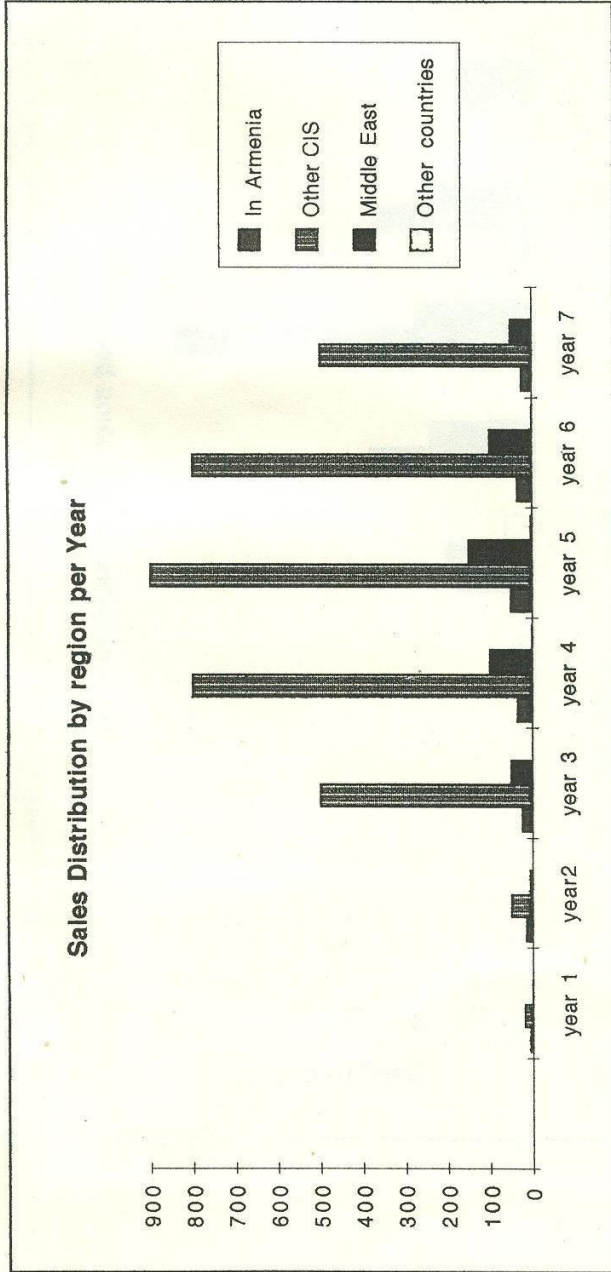
Sales Distribution by Region per Year



SWICS



Accounting System



SYSLAM

Sales Distribution by Region per Year

