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# DIAGNOSTIC / RESTRUCTURING STUDY

## MERA ELZAB

*A British Government Financed Project  
executed by the  
United Nations Industrial Development Organisation*

*Final Report*

*London - Warsaw, December 1991*

CENTRAL EUROPE TRUST

19473

1991  
1991  
1991

Introduction...

**CENTRAL EUROPE TRUST HAS EVALUATED RESTRUCTURING OPTIONS FOR MERA ELZAB, A COMPANY INVOLVED IN THE MANUFACTURE OF COMPUTER EQUIPMENT AND PERIPHERALS**

Central Europe Trust has been appointed by the United Nations Industrial Development Organisation, acting on behalf of the UK Know-How Fund and Poland's Ministry of Industry, to prepare a restructuring plan for Zakłady Urządzeń Komputerowych - Mera Elzab

Mera Elzab is located in Zabrze, 20 km north of Katowice in Southern Poland. The region is economically depressed given its heavy dependence on coal mines and steel factories. Mera Elzab is a producer of computer equipment consisting of monitors, monitor systems, work stations, and paper tape devices. Mera Elzab currently employs 765 people, down from a two year high of 1300 in December 1989

The final report summarises our conclusions about the diagnostic of Mera Elzab, and presents a strategic business plan to be used by the management to restructure and refinance the company. From the developed conclusions and business plan, relevant recommendations were drawn for Mera Elzab

Introduction...

## **CENTRAL EUROPE TRUST HAS DEFINED GROWTH STRATEGY FOR MERA ELZAB**

- The present document is the final report of the Unido Pilot Restructuring Project for Mera Elzab in Zabrze, Poland. (TF/POL/90/903). This assistance has been provided by the United Nations Industrial Development Organisation/ Polish Agency for Industrial Development acting on behalf of the UK Know-How Fund. UNIDO has subcontracted the professional services to Central Europe Trust (contract 91/113)
- Mera Elzab is an enterprise which produces computer peripheral equipment. The factory is located in Zabrze, a town with a population of approximately 250,000 people, located in southern Poland. With a workforce in excess of 700 people, Mera Elzab is one of the few enterprises in the region not belonging to the steel or coal industries
- The project had two parallel objectives. Firstly, to provide the company with immediate advice to help the enterprise remain operational in the short term and secondly, to help the company management develop a better and more coherent strategic view of Mera Elzab's future. During the project the subcontractor (CET) had to:
  - Analyse the domestic and international markets for Mera Elzab's products in order to establish market potential and Mera Elzab's competitive position
  - Perform cost analysis in order to identify leading cost factors
  - Evaluate Mera Elzab's technological base
  - Evaluate Mera Elzab's management and staff structure
  - Analyse financial performance
- The aim of these evaluations and analyses was to make conclusions as to the options available to the company and to make recommendations as to the most attractive options

Introduction...

## THE PROJECT HAD BEEN CARRIED OUT OVER A FOUR MONTH PERIOD

- Initial visits to Mera Elzab to gather information for diagnostic. (June/ August 1991)
- Information gathering and analysis performed by the following Central Europe Trust staff:
  - M. Barcz (Analyst)
  - R. Sosna (Analyst)
  - P. Kuc (Analyst)
  - P. Chudy (Managing Coordinator)
  - A. Drab (Project Manager/ Trainer)
  
- Engineering and financial experts fielded: (June/ October 1991)
  - S. Pieniazek (Industrial Engineer)
  - J. Koniacki (Accounting Specialist)
  - A. Musielak (Electronics Engineer)
  - A. Kinast (Chartered Accountant/ MIS Specialist)
  - L. Ghamissou (Financial/ MIS Specialist)
  
- Market and industry research work at the Central Europe Trust London office (June/ October) carried out by Ashley Summerfield with input from Central Europe Trust industry experts E. Weyhausen and C. Jonscher
  - Preparation of questions to be used for international market/ industry analysis
  - Desk research from secondary sources
  - Interviews with industry experts
  - Preparation of slides summarising findings of market/ industry analysis
  - Technical analysis
  
- Market and industry research on Polish computer sector by R. Sosna, P. Kuc and M. Barcz (June/ September)
- Preparation of interim report with initial conclusions and recommendations by A. Mierzwa, P. Chudy, C. Jonscher (August)
- Presentation of interim report to Mera Elzab management by A. Mierzwa and P. Chudy (August)
- Review of interim report with Mera Elzab management, the Agency for Industrial Development, and United Nations representatives by P. Chudy, A. Rakowski (September)
- Training sessions with Mera Elzab management carried out by A. Mierzwa; A. Drab, and P. Chudy (August/ October)
  - Strategic options (October)
  - Product/ market selection (August)
  - Marketing Training Programme - arranged by CET for the Commercial Director, Mr. Onaczyszyn, in GPT Liverpool
  
- Preparation of business plan and MIS by L. Ghamissou, a Financial/ MIS expert
- Discussion of restructuring options with Mera Elzab management. A. Mierzwa and P. Chudy (October)
- Preparation of strategic options and final report by P. Chudy, A. Mierzwa, C. Jonscher, and L. Ghamissou (September/ October)

Introduction...

## **THE PROJECT WAS PERFORMED IN TWO PHASES - DIAGNOSTIC AND BUSINESS PLAN**

- The first phase was a diagnostic of Mera Ezab which formed the basis for the second phase - a strategic business plan for the enterprise. The main steps within each of the two phases were as follows:

- Collection of market and company information
- Analysis of information gathered in order to develop a company diagnostic from which conclusions and recommendations could be drawn and presented in the interim report
- Development and analysis together with company management of strategic options available to Mera Elzab
- Final report

The objectives were to provide information and analysis on which basis the company would make decisions and also to train management in strategic thinking

- The diagnostic had five main elements:

- Revenue / product mix analysis
- Cost analysis
- Asset utilisation
- Management and staff structure
- Financial analysis

The output from this element of the work was an evaluation of the competitive positioning of Mera Elzab. This evaluation was used to develop the basic assumptions behind the strategic business plan

- The strategic business plan was developed by carrying out strategic training sessions with the management team and by interviewing key individuals within the organisation. The key elements of the plan were as follows:

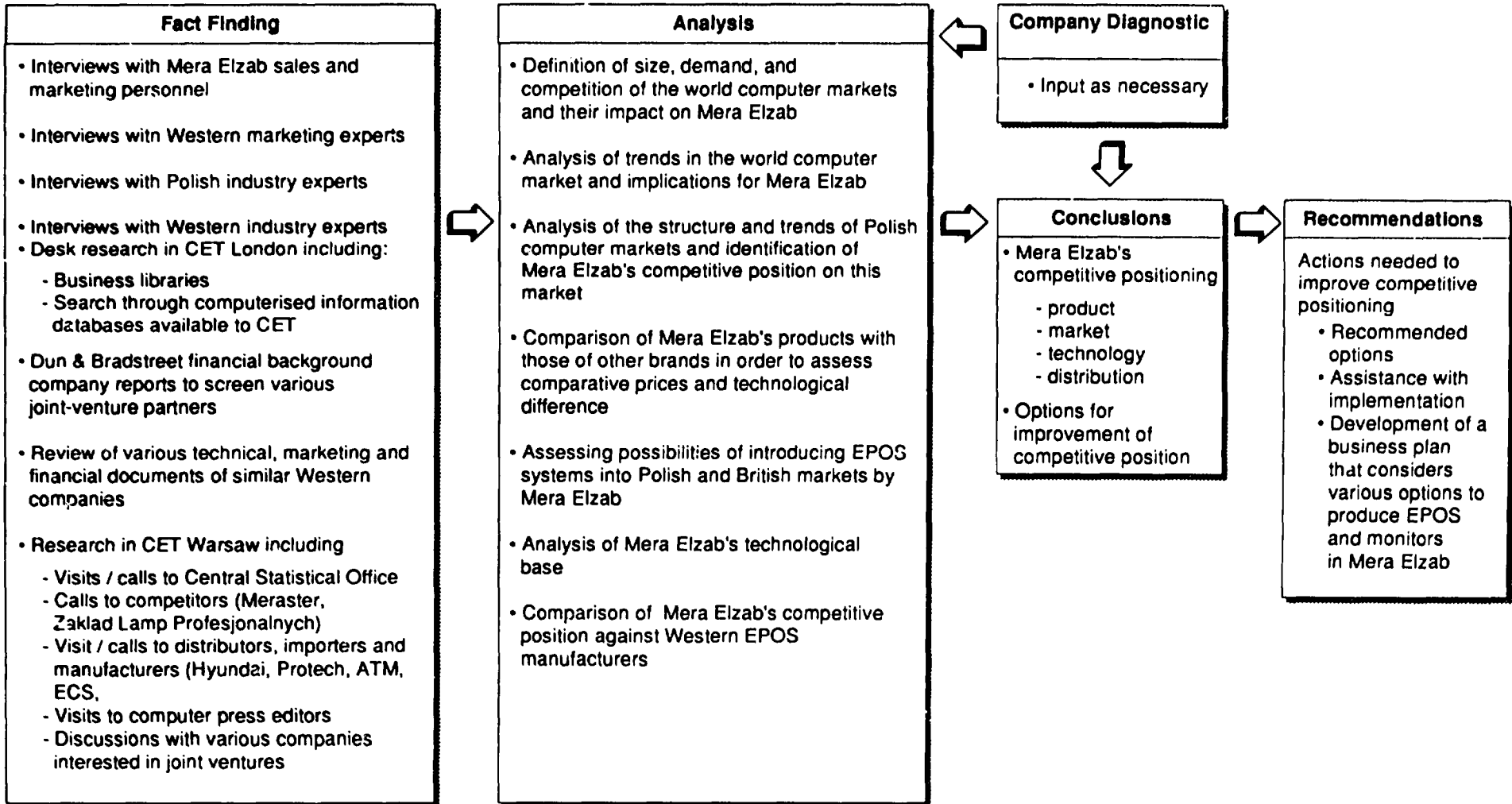
- Corporate mission
- Product/ market strategy for monitors and EPOS products
- Cooperation strategy
- Company organisation and asset mix
- Financial business plan

The aim of this plan was to clearly identify the options available to the enterprise, to outline the constraints which the company might face in pursuing the various options, and to develop key actions which the company needs to take in order to sustain competitive advantage

Introduction...

## DURING THE MARKET AND INDUSTRY ANALYSIS CET FOLLOWED A CLEAR LOGICAL METHODOLOGY

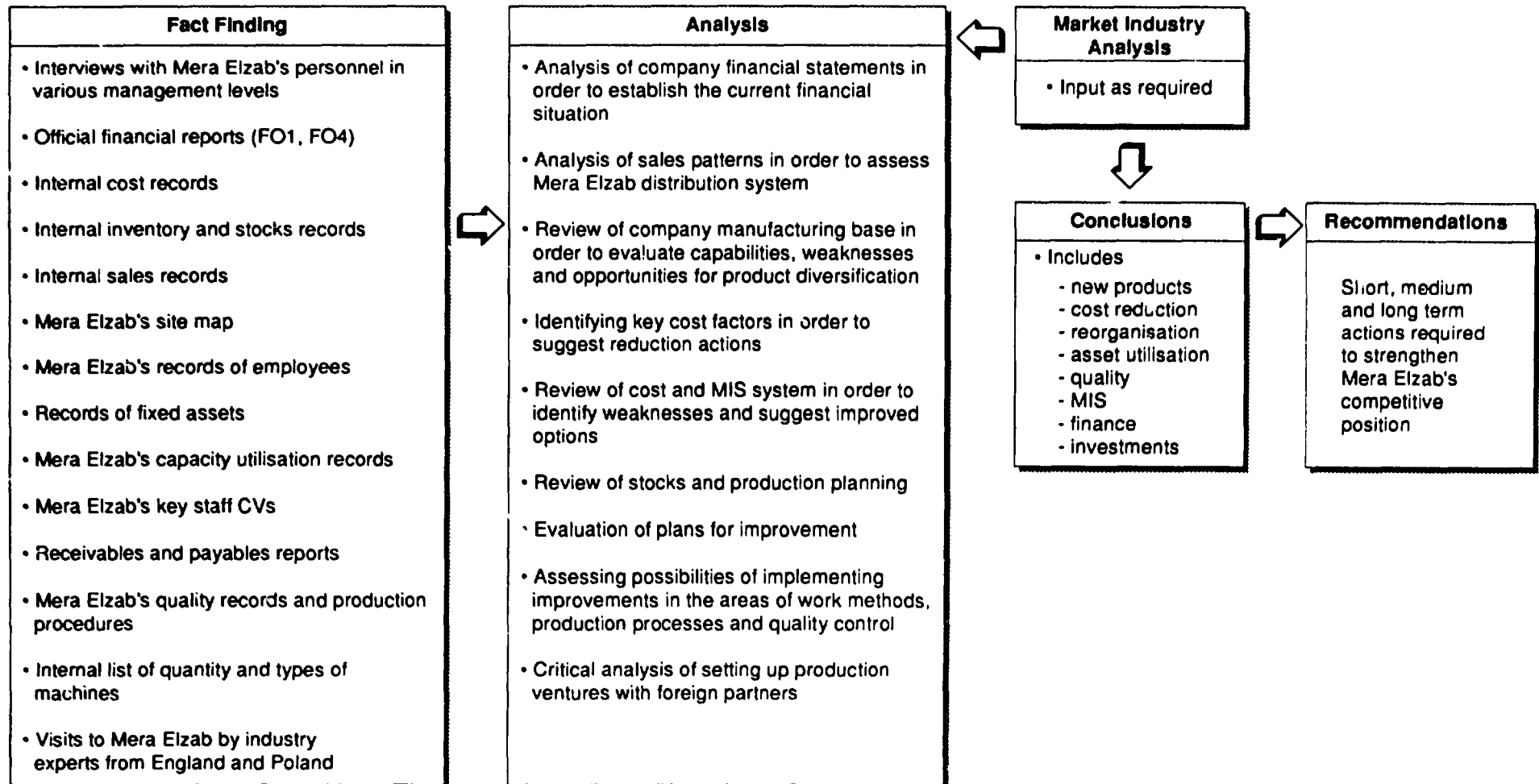
### Summary of Methodology : Industry and Market



Introduction...

## THE COMPANY DIAGNOSTIC STUDY WAS EXTENSIVELY CONDUCTED BY INDUSTRY EXPERTS AND CET SPECIALISTS

### Summary of Methodology : Company Diagnostic

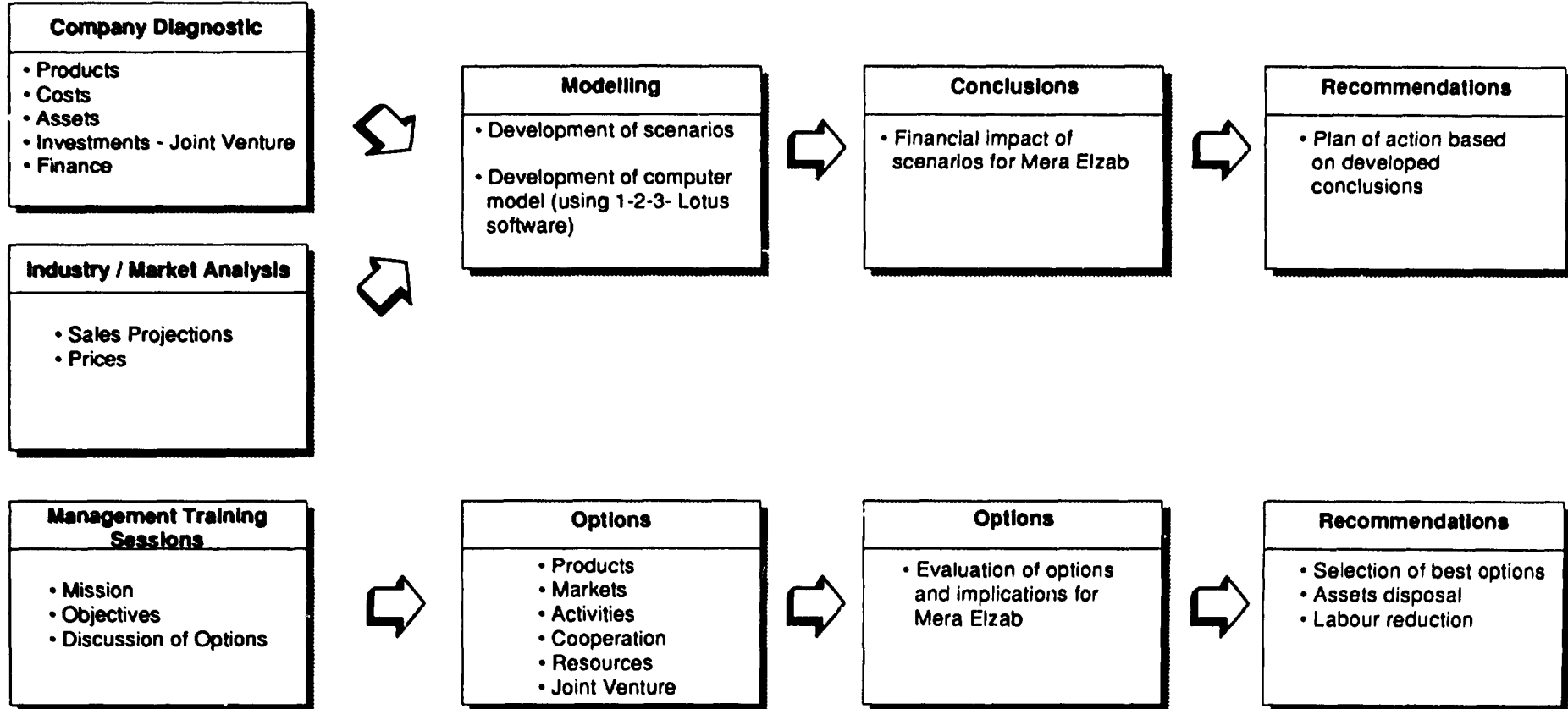




Introduction...

## FOUR DISTINCT BUSINESS PLANS WERE DEVELOPED TOGETHER WITH MERA ELZAB MANAGEMENT

### Methodology : Business Plan



Introduction... Team Composition...

**CENTRAL EUROPE TRUST ASSEMBLED A MULTIDISCIPLINARY TEAM UNIQUELY SUITED TO THE TASK OF RESTRUCTURING MERA ELZAB**

**Team Members Involved in Mera Elzab Restructuring**

<b>Individual</b>	<b>Role</b>	<b>Man Months</b>
Mr. Barcz	- Project Analyst/ Warsaw	3.0
Mr. Chudy	- Managing Coordinator/ Warsaw - London	2.5
Mr. Drab	- Project Manager/ Warsaw - Katowice	1.0
Mr. Ghamissou	- Financial/ MIS / Warsaw Analyst	2.0
Mr. Jonscher	- Industry Expert/ London	1.5
Mr. Kinast	- Accountant/ London	1.5
Mr. Koniecki	- Accountant/ Warsaw	1.0
Mr. Kuc	- Project Analyst/ Warsaw	1.5
Mr. Mierzwa	- Executive Coordinator/ Warsaw - London	1.0
Mr. Musielak	- Industry Expert/ Warsaw	2.0
Mr. Pieniazek	- Industrial Engineer/ London	1.0
Mr. Rakowski	- Project Coordinator	0.5
Mr. Sosna	- Project Analyst/ Warsaw	3.0
Mr. Summerfield	- Project Analyst/ London	3.0
Mr. Weyhausen	- Industry Expert/ London	1.0

Introduction... Interviews...

**CENTRAL EUROPE TRUST INTERVIEWED THE FOLLOWING PEOPLE TO GAIN A GOOD UNDERSTANDING OF MERA ELZAB AND OF THE INDUSTRY**

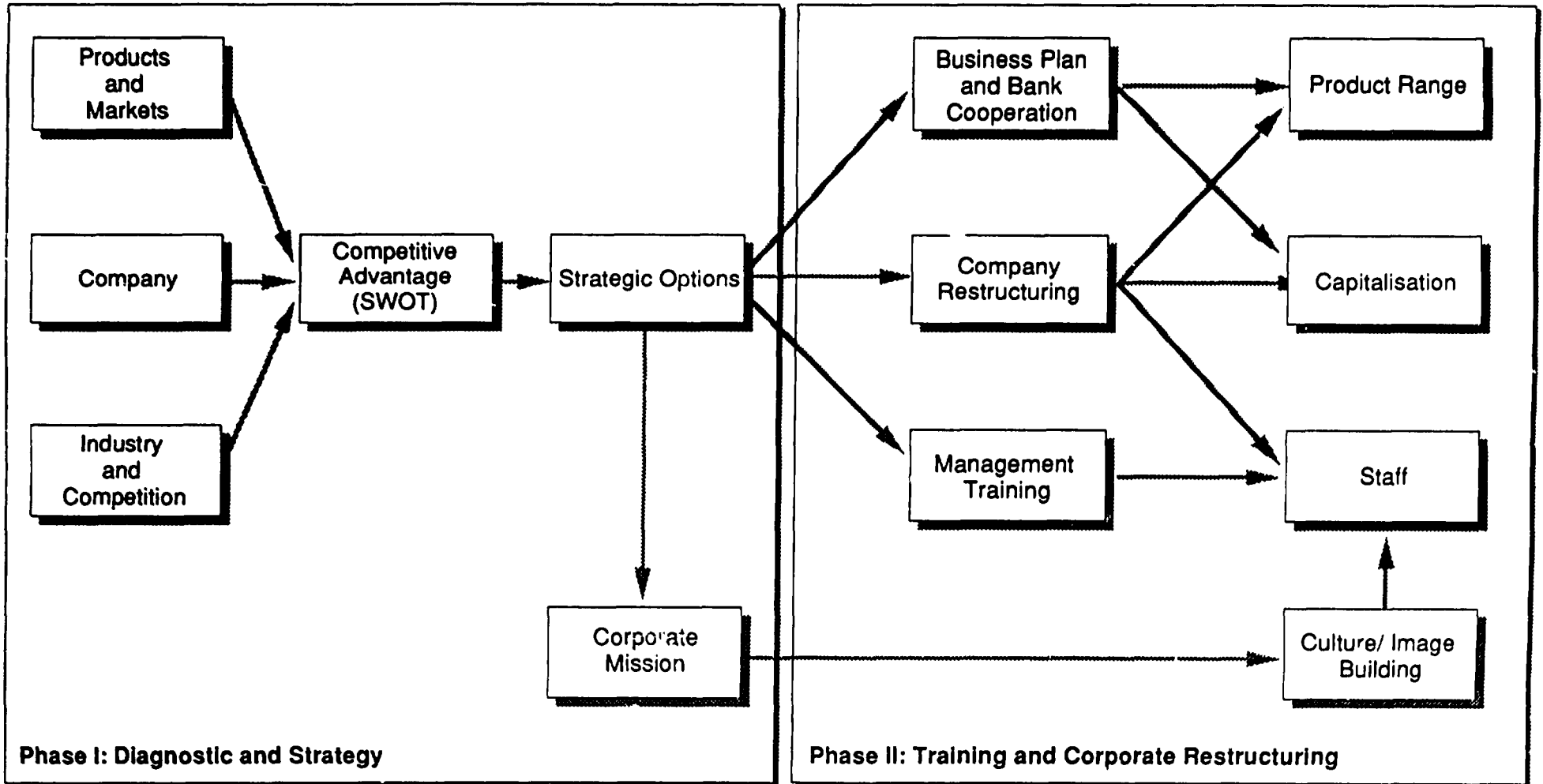
**Interviews...**

<b>Internal</b>	
Mr Biernat	Managing Director
Mr Smolinski	Technical Manager
Mr Opiela	Production Manager
Mr Sroka	Chief of Technology
Mr Dariusz Dobrucki	Inventory Division Manager
Mrs Golebiowska	Personnel Division Manager
Mrs Janoska	Financial Manager
Mrs Bywalec	Accountant
Mr Sieradzki	Production Department Manager
Mr Liziniewicz	Production Department Manager
Mr Weglinski	Production Department Manager
Mr Onaczyszyn	Commercial Manager
Mr Michalski	Department Service Manager
Mr Ratynski	Department Service Manager

<b>External</b>	
Grzegorz Eider	Editor-in-Chief "Enter"
Jackie Hunter	Digital Equipment Co. Ltd
Christophe Tardivat	Product Marketing Manager, Hitachi Sales Ltd
Alan Melkerson	Managing Director, Microvitec Plc
Mr E Kawanura	Managing Director, Taxan (UK) Ltd
Adrian Leger	Marketing Manager, Taxan (UK) Ltd
Peter Collins	Production Manager, Roland Digital Group
Russell Cole	Production Manager, NEC (UK) Ltd
Martin Archer	Marketing Manager, Samsung Electronics UK Ltd
John W. Coupland	The Institution of Electrical Engineers
Taryn Watson	Editor, "What Personal Computer"
Peter Gloucester	Editor, "What Personal Computer"
Jackie Danson	Romtech Plc
Trevor Shephard	Editor, "PC Today"
John Lettice	Editor, MicroScope
Guy Swarbrick	Editor, "Personal Computer World"
Tadeusz Czichon	ATM, Managing Director
Emil Konarzewski	Protech, Commercial Manager
Tomasz Bochenek	Selko- Hyundai Sales Representative
Tadeusz Wilczek	ECS, Managing Director

Introduction... Restructuring Process...

### CET HAS DEVELOPED A STEP BY STEP PRACTICAL APPROACH TO CORPORATE RESTRUCTURING IN POLAND



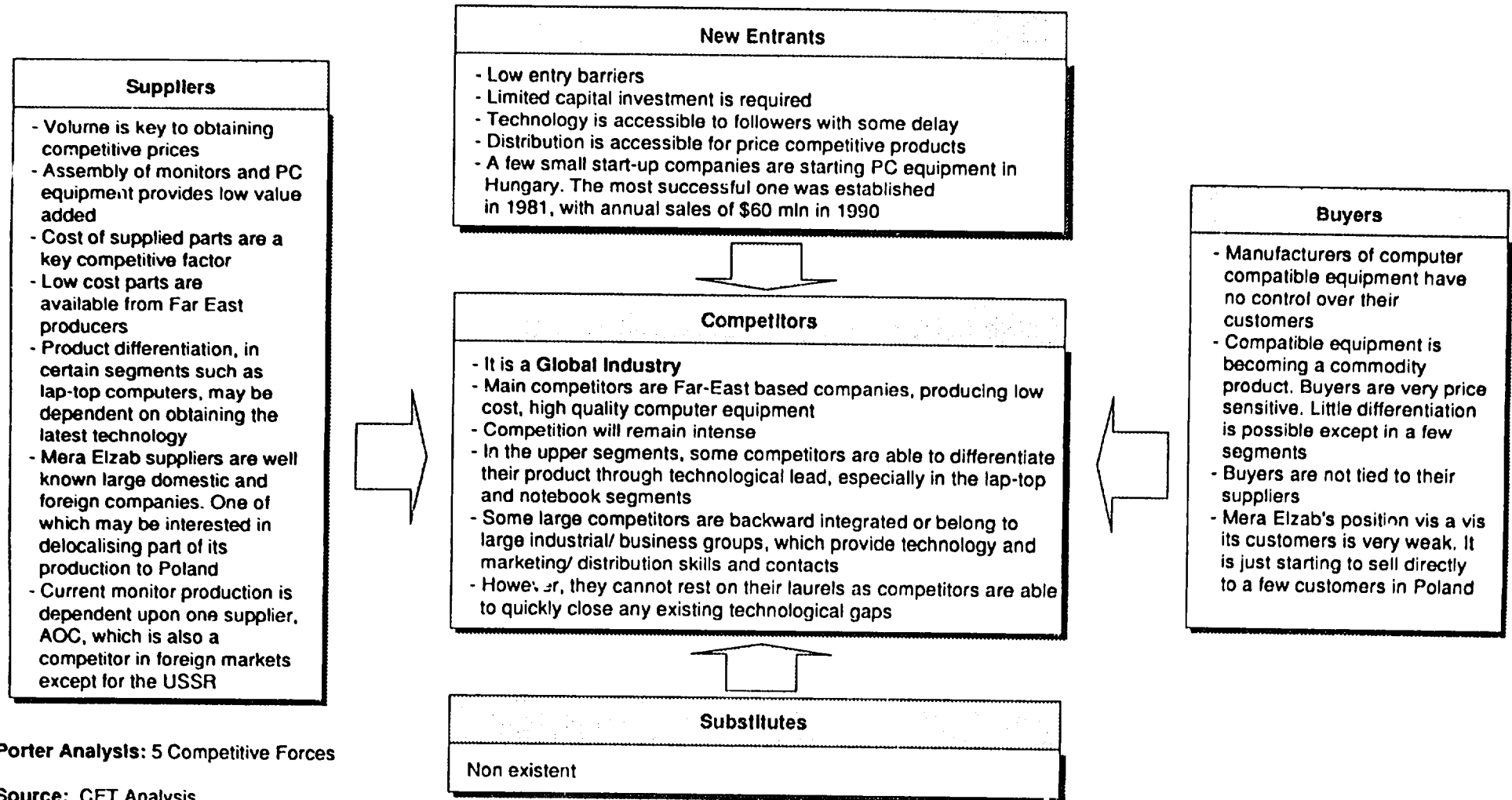
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Executive Summary...

**MERA ELZAB IS IN THE BUSINESS OF ASSEMBLING COMPUTER EQUIPMENT, ESPECIALLY MONITORS AND WORKSTATIONS. IT IS A GLOBAL INDUSTRY IN WHICH FAR-EASTERN PRODUCERS GO FOR VOLUME PRODUCTION TO COMPETE ON PRICE FOR WORLD MARKETS. COMPETITION WILL REMAIN INTENSE**

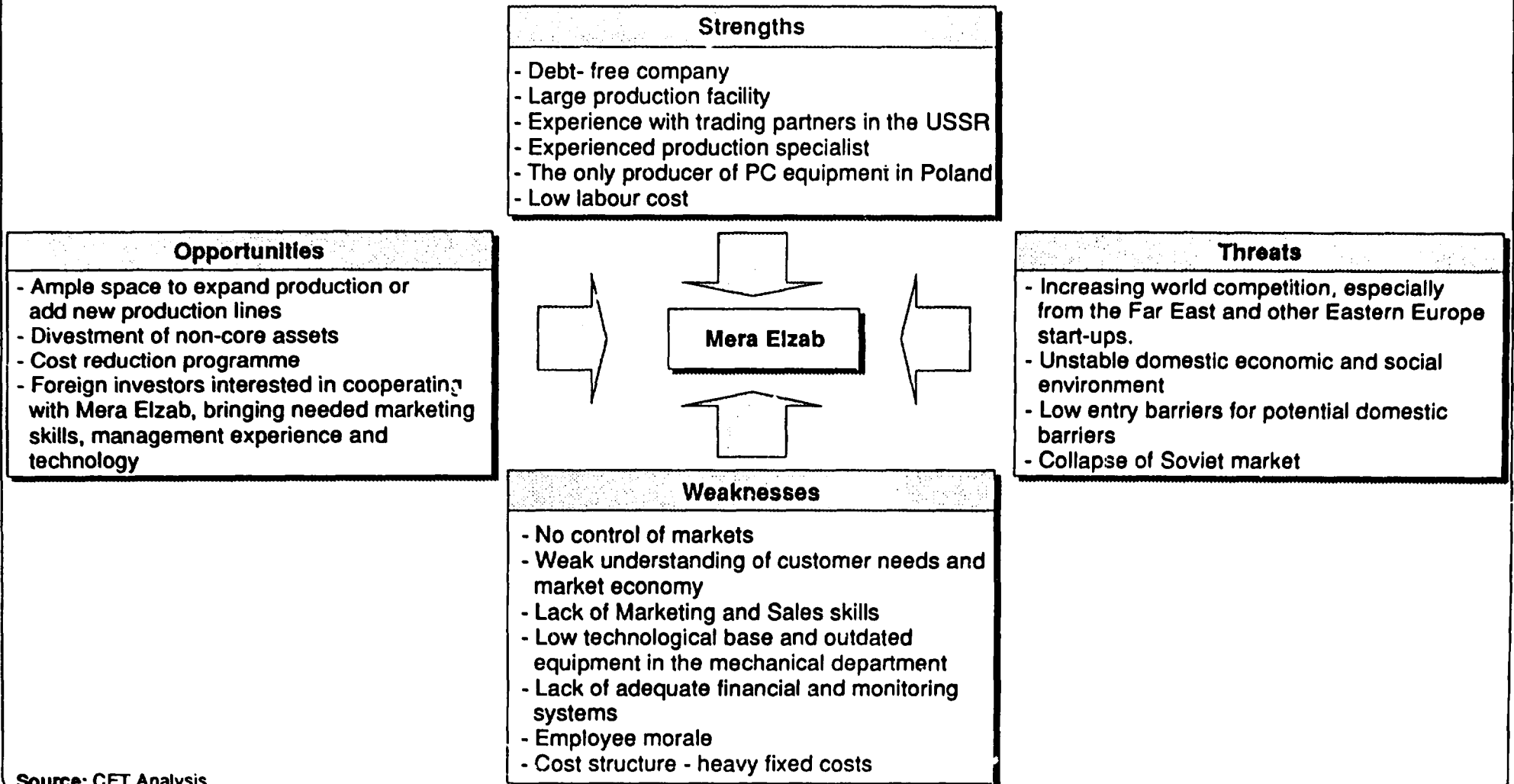


Porter Analysis: 5 Competitive Forces

Source: CET Analysis

Executive Summary...

**MERA ELZAB IS EXPERIENCED IN ASSEMBLING COMPUTER EQUIPMENT. HOWEVER AS LONG AS PRODUCTION VOLUME REMAINS LOW, FIXED COSTS WILL SEVERELY IMPAIR MERA ELZAB'S COMPETITIVENESS**



Source: CET Analysis

CENTRAL EUROPE TRUST

MERA07/91/LA

Executive Summary...

**MERA ELZAB AIMS TO BE A MEDIUM SIZED PRIVATE COMPANY PRODUCING MODERN COMPUTER PERIPHERAL EQUIPMENT AND OTHER ELECTRONIC PRODUCTS, SUCH AS EPOS, FOR DOMESTIC AND INTERNATIONAL MARKETS**

- Mera Elzab's first objective is to keep the company alive and subsequently to improve its profitability
- In 1991, Mera Elzab has been surviving, by depleting cash reserves existing at December 1990, due to a large negative operating cashflow
- If the product mix remains the same (mainly, monitors) and no restructuring actions are taken, the company will go bankrupt by the year end 1992
- Thus, decisive actions have to be taken by year end 1991 in the areas of:
  - Product mix
  - Partnership with suppliers and JV agreements
  - Disposal of social and other non-core business assets
  - Employment structure
- Mera Elzab's management has to rapidly decide on whether and how Mera Elzab should get involved in the manufacturing and marketing of EPOS equipment and establish a joint venture with Xyllyx Research International
- Mera Elzab can buy additional time to develop new business opportunities by reducing cost structure and disposing of social and noncore assets
- However, Mera Elzab is still on a very risky position as order backlog for 1992 is non existent. The contract for the delivery of 72000 monitors to the USSR has yet to be signed and funded

Source: CET Analysis



Executive Summary...







**MERA ELZAB HAS TO MAKE A STRATEGIC DECISION REGARDING THE TYPE OF PRODUCTS AND MARKETS TO PURSUE IN THE IMMEDIATE FUTURE**

- Maximise sales of existing product lines
- Concentrate on reviewing one joint-venture proposal, currently the most advanced is for the manufacturing of Electronic Point of Sales (EPOS) Equipment with Xyllyx Research
  - carefully evaluate market potential, required financing and planned profitability
  - make a decision regarding the proposal or pursue other options
  - once decision is taken, start-up manufacturing as soon as possible
- Discontinue manufacturing and marketing efforts for non-competitive or declining products
- Implement a marketing programme to understand and respond to customers' needs
- Improve marketing and sales skills of the marketing personnel
- Create a marketing mind set within Mera Elzab, including the areas of product development and design
- Continue efforts to establish a distributors network within Poland
- Investigate the possibility of creating Mera Elzab's own distribution contact abroad

Source: CET Analysis

Executive Summary...

**THE FOLLOWING JOINT-VENTURE PROPOSALS AVAILABLE TO MERA ELZAB IN THE NEAR TERM ARE ACTC AND XYLLYX RESEARCH - BOTH PROJECTS LACK FINANCING FROM JV PARTNERS**

	Advanced Computer Technology Corporation	Xyllyx Research
<b>Product</b>	IBM compatible PC's	Electronic point of sales equipment
<b>Market</b>	Europe and USA	UK, Europe, Poland
<b>Investment</b>	\$4.2 million	To be determined
<b>Maximum production annual</b>	Year 5: 260000 units	Year 4: 12000 units
<b>Maximum sales annual</b>	\$300 million	\$16 million
<b>Profit</b>	\$19 million	To be determined
<b>Key competitive advantage</b>	Price, volume 	Price, application software, design, niche marketing 
<b>Value added</b>		
<b>Transfer of know-how (technology manufacturing marketing)</b>		
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Volume/ Profit</li> </ul>	<ul style="list-style-type: none"> <li>• Product differentiation not exclusively based on price</li> </ul>
<b>Weakness</b>	<ul style="list-style-type: none"> <li>• No Financial involvement</li> <li>• Weak financial planning, especially in the area of cash flow</li> <li>• Main competitive advantage is price</li> </ul>	<ul style="list-style-type: none"> <li>• No financial involvement</li> <li>• Weak financial planning especially in the areas of cash flow and cost forecasts</li> </ul>

**Key:** ● High  
○ Low

Source: ACTC, Xyllyx Research, CET Analysis

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**Executive Summary...**

**FOLLOWING SERVICES WERE PROVIDED BY CET TO FACILITATE JV EFFORTS BETWEEN MERA ELZAB AND XYLLYX RESEARCH:**

- Complete financial and market review of Xyllyx Research through the analysis of Dun and Bradstreet background reports
- Strategic advice for Mera Elzab management regarding the selection of the most advantageous JV option
- Development of a Business Plan that takes into consideration EPOS production between Mera Elzab and Xyllyx Research
- Development of an EPOS market study to assess JV potential in Poland and the U.K.
- Participation in JV discussions between Mera Elzab and Xyllyx Research
- Providing CET office facilities in Warsaw and London for Mera Elzab management when negotiating with Xyllyx Research or western banking institutions
- Locating western financial institutions interested in providing support for the JV
- Attending meetings with the Agency for Industrial Development to support Mera Elzab JV efforts

**Source:** CET Analysis

**Executive Summary...**

**TO REMAIN A VIABLE OPERATION, MERA ELZAB MUST TAKE ACTIVE MEASURES TO ADDRESS THE FOLLOWING ISSUES:**

- Strengthen competitive standing through partnership agreements with suppliers and joint venture with western marketing/ sales organisations
- Implement quality control procedures in line with world class manufacturing standards
- Get higher value added production
- Adapt cost structure, employment and asset base to business needs
- Subcontract production when outside suppliers are more cost effective than international production
- Increase revenue and product mix base
- Gain control over its markets and customers
- Reduce levels of manufacturing integrations and increase manufacturing focus
- Sell of social assets and other non-core business assets

**Source: CET Analysis**

Executive Summary...

**DESPITE INCREASED SALES OF MONITORS TO THE SOVIET UNION IN THE SECOND HALF OF 1991, MERA ELZAB FACES UNCERTAIN FINANCIAL FUTURE DUE TO LOW OVERALL PRODUCTION. THE COMPANY NEEDS TO PRODUCE APPROXIMATELY 190,000 MONITOR UNITS TO BREAK EVEN IN 1992. THIS AMOUNT IS UNREALISTIC GIVEN CURRENT ORDERS AND ONGOING NEGOTIATIONS WITH THE SOVIET UNION**

**Financial and Accounting Analysis**

- Mera Elzab is experiencing financial difficulties as volume has dropped significantly
- Metronex, the Foreign Trade Organisation arranging the 1991 USSR monitor deal withheld a large payment due to Mera in July 1991, causing serious cash flow problems
- Mera Elzab's cost accounting system is inadequate since cost allocation, variance tracking analysis, and inventory valuation are poorly analysed
- Mera Elzab needs to negotiate better payment cycle in respect to debtors and creditors
- Cash flow position is deteriorating as it is likely that overall activity will not increase significantly in the near term
- Mera Elzab is having difficulties getting credit from its bankers

Source: CET Analysis

Executive Summary...

**MERA ELZAB'S MANAGEMENT HAS TO IMPROVE ITS MARKETING, SALES, FINANCIAL, AND MANAGEMENT SKILLS WHILE STREAMLINING INTERNAL OPERATIONS**

**Management and Organisation**

- Management lacks exposure to a market environment
- The transition to a market economy environment in a global market industry has yet to be understood and integrated by management
- Management lacks expertise and skills in the following fields:
  - marketing
  - sales and distribution
  - finance and control
  - industrial management
- Immediate training needs are in the areas of marketing, sales, costing, and quality
- Mera Elzab needs to take steps to reduce large fixed costs associated with high staffing levels

Source: CET Analysis

Executive Summary...

**MANAGEMENT SHOULD CONCENTRATE ON BETTER UTILISING MERA ELZAB'S ASSETS IN ORDER TO INCREASE REVENUE**

**Revenues**

- Since the first quarter of 1991, due to the collapse of the Russian market, revenue decreased dramatically to a low of ZI 15.7 bn (\$1.3 mln) for the period of January-May 1991 from a high of ZI 176 bn (\$17.6 mln) for fiscal year 1990
- The product mix has shifted from workstations and monitor systems to low value added monitors assembly
- 1991 revenue is based on a single contract for delivery of 48,000 monitors to the Soviet Union, amounting to \$11 mln
- Mera Elzab's products, although at the lower end of wholesale price range, do not have a significant price advantage on the European market
- To increase revenue, Mera Elzab has to actively pursue domestic markets

Source: CET Analysis

Executive Summary...

## **TO REDUCE COSTS, MERA ELZAB MUST IMPLEMENT A SYSTEM IDENTIFYING AND TRACKING TRUE PRODUCT COSTS**

### **Costs**

- Large overhead costs have severely harmed Mera Elzab's profitability and cash flow position. Due to low production levels for the period January - May 1991, direct material costs represented 31% of total costs against 56% in 1990. All other costs are deemed fixed costs
- Mera Elzab has to establish actual material and labour usage for each product, sub-assembly or service
- Mera Elzab needs to introduce quality improvement programme focusing on the following:
  - Bonus/ penalty schemes to motivate operators in all manufacturing departments
  - Written instructions/ boards to depict quality requirements
  - Quality control function is to be truly independent
- Direct labour has remained constant regardless of production volume
- Quality problems have resulted in additional cost for the company

Source: CET Analysis



Executive Summary...

**MERA ELZAB MUST ADDRESS INTERNAL PROBLEMS IN ORDER TO INCREASE ITS MARKET SHARE AND BECOME MORE COMPETITIVE WITHIN THE INDUSTRY**

Market	Company	Industry
<ul style="list-style-type: none"><li>- The European computer market accounts for 18% of the World market and is showing no significant growth</li><li>- PC market: 1992 market value - \$107 billion up from \$58 billion in 1989. Annual rate of growth 22% from 1989 to 1992</li><li>- Laptop computers are increasingly popular. They will represent respectively 35% and 33% of all PCs sold in the US and Europe in 1993, up from 19% and 12% in 1990</li><li>- The workstations market is expected to increase by 253% in the world and by 85% in Europe for the period 1990-1994. Sales of Engineering workstations will be the main cause of this growth</li><li>- Colour and high resolution monitors will dominate the monitor markets. VGA and SVGA standards will soon represent a significant share of the monitor market</li><li>- The monitor market is more fragmented than the computer market. Market shares of major players do not exceed 10%. 60% of the market is shared by small brands with market shares under 1%</li><li>- Polish market:<ul style="list-style-type: none"><li>- sales estimate: 10,000 units/ month</li><li>- no significant growth is expected until current economic situation improves</li><li>- however, mid-term market potential is huge</li><li>- EPOS market is almost non existent, except for a few large corporate customers, hotels, airlines and on supermarket chain, Pewex</li></ul></li></ul>	<ul style="list-style-type: none"><li>- High fixed costs and record low activity. Sales of only Zl 15.7 bn, resulted in a loss of Zl 6.7 bn for the period January-May 1991</li><li>- Cash flow situation has deteriorated</li><li>- Further cash flow deterioration will occur as activity is not picking up</li><li>- 1991 revenue is dependent on one contract with the USSR</li><li>- Collecting cash payments is becoming a problem</li><li>- Management lacks exposure to market economy environment and experience in Marketing, Sales and Finance/ Administration</li><li>- Production system is not efficient because of:<ul style="list-style-type: none"><li>- excessive degree of integration</li><li>- lack of manufacturing focus</li></ul></li></ul>	<ul style="list-style-type: none"><li>- Assembly of computer equipment (IBM and DEC Compatible)</li><li>- Global industry</li><li>- Competition is based on prices. Competition will remain intense</li><li>- Major competitors are Far-East based producers</li><li>- Technology is generally available, in some cases, with some delays</li><li>- Technological and Marketing Differentiation is possible in a small number of segments</li></ul>

Source: CET Analysis

CENTRAL EUROPE TRUST

Recommendations...

**MERA ELZAB IS FAR FROM BEING WELL POSITIONED TO QUICKLY BECOME A HIGHLY PROFITABLE PLAYER IN THE GLOBAL COMPUTER / MONITOR ASSEMBLY INDUSTRY. TO BECOME COMPETITIVE, MERA ELZAB MUST ADDRESS THE FOLLOWING ISSUES**

Volume	Suppliers	Manufacturing / Assembly	Product Development / Industrialisation	Inventory Management	Idea to Product Cycle Realisation	Marketing Intelligence and Anticipation
<ul style="list-style-type: none"> <li>High volume production provides for large economies of scale and great bargaining power</li> </ul>	<ul style="list-style-type: none"> <li>Parts represent the largest cost element in a PC</li> <li>- volume permits large quantity discounts</li> <li>- long term relation with suppliers, especially from the Far East, is a condition for continuous access to the latest technology</li> </ul>	<ul style="list-style-type: none"> <li>Low labour cost is no longer an absolute condition</li> <li>Excellence in manufacturing management is a key contributing factor to cost advantage</li> </ul>	<ul style="list-style-type: none"> <li>Easily made products greatly help reaching high productivity</li> <li>Good communication, as early as the beginning of the project, between conception/design and process engineers is instrumental in increased productivity, fluid workflow and low inventory</li> </ul>	<ul style="list-style-type: none"> <li>Keeping low inventory reduces                             <ul style="list-style-type: none"> <li>- financial risks</li> <li>- business risks due to quick obsolescence</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The ability of a company to quickly enter the market with newly designed products can be a significant advantage</li> </ul>	<ul style="list-style-type: none"> <li>Knowing the customers' needs and anticipating quick demand changes provides significant advantage in distribution and helps to dramatically reduce the obsolescence risk</li> </ul>

Importance							
Mera Elzab's Position							
Possibility for Improvement							

SOURCE: CET Analysis

Strong  
 Weak  
 Short Term  
 Long Term

Recommendations...

**THE FOLLOWING OPPORTUNITIES REPRESENT A SHORT LIST OF PRODUCTS MERA ELZAB COULD MANUFACTURE. MERA ELZAB SHOULD FIRST REDUCE THIS LIST BY CALCULATING WHETHER IT CAN BE A SUCCESSFUL PLAYER IN THE INTERNATIONAL MARKET AND IN POLAND.**

Product	Value Added	Fit with MERA ELZAB	International Competition	Potential for Polish Market
• Equipment using computer systems for financial institutions				
- Automated Teller Machines - Reader / Sorter equipment				
• Equipment for the Post-Office				
• Rugged computers (for military and other special equipment)				
• PC based security systems				
• Electronic meters				
• Electronic ticketing machines				
• PC based data input recording devices				

Source: CET Analysis

CENTRAL EUROPE TRUST

MERA07/91/AC

Recommendations...

**MERA ELZAB IS CONSIDERING FORMING A JOINT VENTURE WITH XYLLYX RESEARCH FOR THE MANUFACTURING AND MARKETING OF ELECTRONIC POINT OF SALE EQUIPMENT. MERA ELZAB HAS ASKED CENTRAL EUROPE TRUST TO ASSIST IN THE JOINT VENTURE. CET'S STRATEGIC BUSINESS PLAN REVEALS THAT A JV PRESENTS A VIABLE OPTION FOR MERA ELZAB**

Outstanding Issues
<p><b>Financial Planning:</b></p> <ul style="list-style-type: none"> <li>• Costs are not properly identified and calculated</li> <li>• Cash flow</li> <li>• Need in working capital to be estimated</li> <li>• Marketing test</li> <li>• Financing                             <ul style="list-style-type: none"> <li>- Mera Elzab</li> <li>- Xyllyx</li> </ul> </li> <li>• Legal Framework</li> </ul>

Action	
CET Xyllyx Mera Elzab	Recomputation of all costs
CET	Discounted cash flow analysis
CET Xyllyx	Define finance
Xyllyx Mera Elzab	Presentation of 2 prototypes at UK EPOS Trade Fair - September '91
Mera Elzab Xyllyx CET	Banking Staging of capital needs
Xyllyx Mera Elzab Legal Counsel	Define and write JV agreement

Source: CET Analysis

Recommendations...

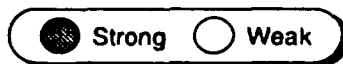
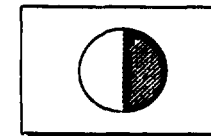
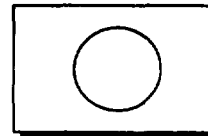
**MERA ELZAB NEEDS TO MAKE SUBSTANTIAL IMPROVEMENTS IN THE AREA OF QUALITY, MARKETING, AND TIMING/ DELIVERY IN ORDER TO BE A COMPETITIVE PLAYER IN THE PC EQUIPMENT ASSEMBLY INDUSTRY**

Quality
World class producers make zero-defect PCs

Marketing
Successful companies understand customers' needs, have targeted marketing programmes for local markets, and can anticipate demand changes

Timing / Delivery
Distribution in Western economies requires meeting scheduled delivery dates

**Mera Elzab's Position:**



Source: CET Analysis

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Recommendations...

**DESIGNING AND IMPLEMENTING NEW QUALITY CONTROL SYSTEM SHOULD BECOME THE PRIME FOCUS OF MERA ELZAB'S MANAGEMENT STAFF**

**Current State**

- Mera Elzab lacks formal procedures to monitor quality during the production process and also after sales. Currently, quality improvement programs are quickly developed, on the basis of information included in warranty cards and production spoilage cards
- During quality control check, when one of the 'critical features' of a product does not meet required standard and the problem cannot be corrected, the product is destroyed. The destroyed products and costs associated with this operation are not registered
- Information on the level of production spoilages is seldom registered. When it is registered it is only in selected points of the technological process
- Quality control department does not issue regular bulletins of information on quality related issues



**Recommendation**

- Create a team which, by co-operating with experts from technological and quality control departments, would perform the following:
  - create efficient information system on defects centres describing causes of spoilages and inferior quality
  - suggest methods and means of removing quality related problems
  - design and implement instructions and procedures which would insure constant quality improvement
- In order to maintain certain level of efficiency in assessing technological qualities in Mera Elzab, a system of information stickers labelled on each device should be introduced. Such labels would provide data on next technical review, expiration dates, or next control. This system can be similar to the one used on number plates in some western countries
- Develop a training program focussing on quality related issues for all management team
- Prepare a company report which includes the following:
  - information about current quality level in Mera Elzab
  - foundation of the new quality system in Mera Elzab
- Special attention should be given to the question of personal responsibility of employees for implementing the new plan

Recommendations...

**DECISIVE ACTION ON SHORT TERM GOALS WILL BE THE KEY TO MERA ELZAB'S LONG TERM SUCCESS**

Short-Term	Medium-Term	Long-Term
<ul style="list-style-type: none"><li>- Establish a Joint Venture with Xyllyx Research</li><li>- Introduce a new product into its product mix - EPOS. Business plan projections show that sole production of monitors kept at projected level will not ensure Mera Elzab's survival</li><li>- Implement cost-cutting programme to lower break-even point</li><li>- Evaluate possibilities of sub-contracting non-core activities</li><li>- Implement simplified cost accounting system to properly cost products</li><li>- Implement adequate pricing policy</li><li>- Train management personnel to develop managerial, marketing and sales skills</li><li>- Develop and implement a privatisation plan</li></ul>	<ul style="list-style-type: none"><li>- Implement marketing and sales programme for penetrating Western European markets</li><li>- Establish direct contact with European distributors</li><li>- Reach objective of total quality</li><li>- Design and implement new management information systems</li><li>- Overhaul the cost accounting and control systems</li><li>- Prepare basis for creating design division based on skills and experience of Mera's engineers trained in West German laboratories. This division, specialised in VLSI designs, could sell its unique services to electronic orientated companies and institutes in Poland</li></ul>	<ul style="list-style-type: none"><li>- Implement strategy of focused manufacturing plant</li><li>- Establish a flexible manufacturing site:<ul style="list-style-type: none"><li>- train workforce to enhance general knowledge and manufacturing skills</li><li>- Integrate design, conception and production for easy-to-make production, flexibility and quality</li></ul></li></ul>

Source: CET Analysis

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## CONTENTS

- I EXECUTIVE SUMMARY AND RECOMMENDATIONS
- II COMPUTER MARKETS
- III MERA ELZAB DIAGNOSTIC
- IV STRATEGIC BUSINESS PLAN
- V APPENDIX

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## Computer Markets... Chapter Presentation...

The following chapter includes a brief introduction into world computer markets. It focuses on electronic points of sales product which are currently being considered by Mera. The following issues are addresses:

- Trends in PC, Workstations, Monitors,
- Main Players, market shares and structure
- Distribution channels
- EPOS systems
- Polish market
- Conclusions

Source : CET Analysis

Computer Markets...

**CET HAS ANALYSED COMPUTER MARKETS BY THE FOLLOWING PRODUCT GROUPS**

Product	Trends	Main Players	Structure of Market	Distribution
<b>Personal Computers (Desktop)</b>	<ul style="list-style-type: none"> <li>• Search for new solutions: networks combined with specialised software</li> <li>• Development of "open systems"</li> </ul>	<ul style="list-style-type: none"> <li>• IBM</li> <li>• Compaq</li> <li>• Apple</li> <li>• Olivetti</li> <li>• Commodore</li> </ul>	U.S. computer market is losing its dominance, while Europe is becoming the biggest market for computers and peripherals	There is general tendency to eliminate distributors and to reach retailers directly. Also, so called "direct sales" approach gives strong results
<b>Laptops</b>	<ul style="list-style-type: none"> <li>• Development of colour LCD</li> <li>• New integrated circuits</li> <li>• New types of hard discs</li> <li>• New types of batteries</li> </ul>	<ul style="list-style-type: none"> <li>• Toshiba</li> <li>• Compaq</li> <li>• Zenith</li> <li>• Sharp</li> </ul>		
<b>Monitors</b>	<ul style="list-style-type: none"> <li>• Dominaticn of colour monitors: VGA and SVGA standards</li> </ul>	<b>Colour Monitors</b> <ul style="list-style-type: none"> <li>• Taxan</li> <li>• Samsung</li> <li>• Philips</li> <li>• Panasonic</li> <li>• NEC</li> <li>• Mitsubishi</li> <li>• AOC</li> <li>• Hitachi</li> </ul>		
<b>Workstations</b>	<ul style="list-style-type: none"> <li>• Expansion of workstations based on RISC microprocessors and designed for technical and engineering applications</li> </ul>	<ul style="list-style-type: none"> <li>• Sun mircosystems</li> <li>• HP/Apollo</li> <li>• DEC</li> <li>• Intergraph</li> <li>• IBM</li> <li>• ICL</li> <li>• Altos</li> <li>• Hitachi</li> </ul>		
<b>Electronic Points of Sale (EPOS)</b>	<ul style="list-style-type: none"> <li>• Development of low cost, standard EPOS Systems for small company market</li> </ul>	<ul style="list-style-type: none"> <li>• IBM</li> <li>• ICL</li> <li>• NCR</li> <li>• Datachecker</li> </ul>	EPOS market is dominated by IBM and ICL - in U.K. both companies control about 33% of the market	

Source: CET Analysis

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Computer Markets... Trends...

**TODAY, COMPANIES ARE INCREASINGLY DETERMINED TO MAKE BETTER USE OF THE COMPUTER EQUIPMENT THEY ALREADY OWN. THIS FACT FORCES COMPUTER MANUFACTURERS TO LOOK FOR NEW SOLUTIONS**

**Present Situation**

- Proprietary computer designs which lock customers into individual suppliers
- Prices are set to yield high profit margins which are used to finance substantial direct sales forces
- Primary conduits between the manufacturer and the customers

**New Trends**

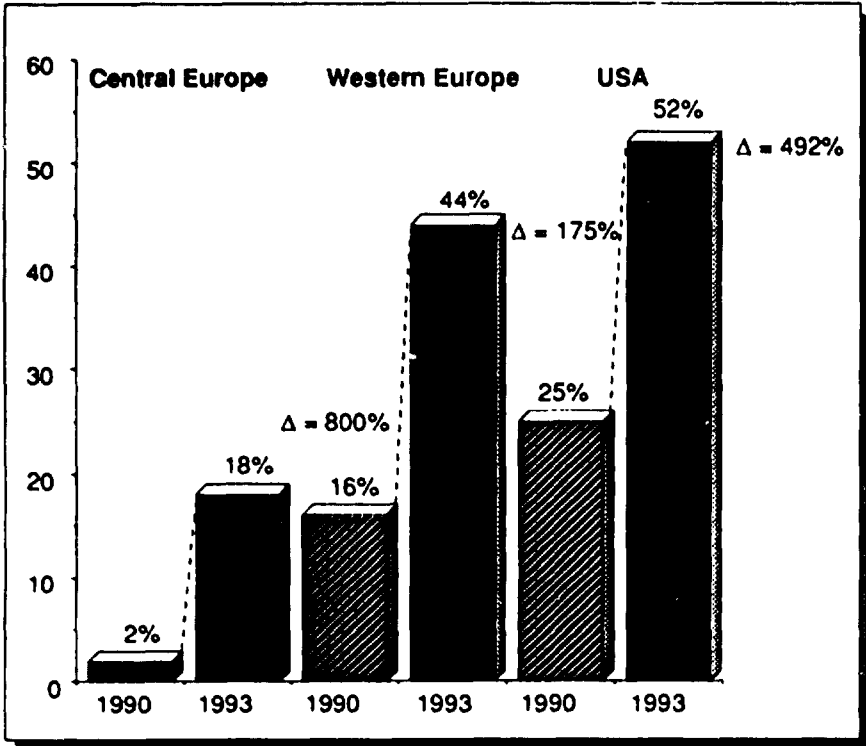
- Machine designs are similar between suppliers because they are based on widely available standard industry microprocessors
- Software is becoming a key buying factor
- New communication equipment and software systems are designed to build computer networks
- Hardware/Software solutions which will speed up decision-making, database searches
- Profit margins are narrow because of the competition and lack of differentiation
- New kind of computers that can read handwriting and display and edit video images will emerge faster than ever

Source: CET Analysis

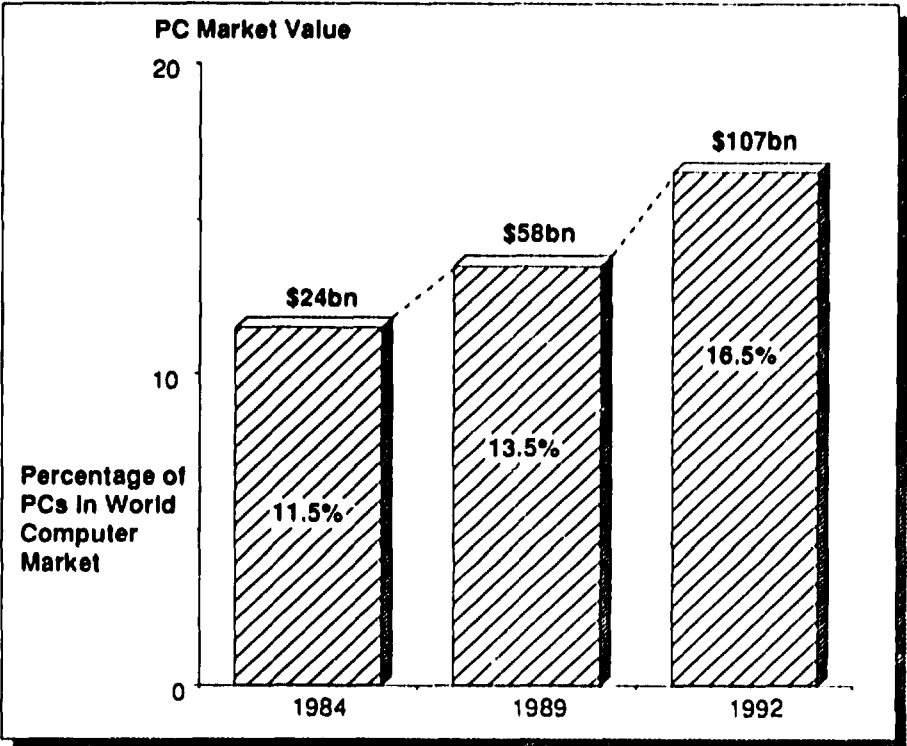
Computer Markets... Trends...

**PC PENETRATION OF WORLD COMPUTER MARKET IS STILL GROWING DYNAMICALLY PRESENTING CHALLENGES AND OPPORTUNITIES FOR MERA ELZAB**

**Estimated PC Penetration of White Collar Workers in Europe and USA**



**Estimated Growth of PC Segment of World Computer Market**



Source: Financial Times, Data Quest

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**INCREASED PC PENETRATION OF CENTRAL EUROPE FROM 2% TO 18% BETWEEN 1990 AND 1993 PRESENTS GROWTH OPPORTUNITIES FOR MERA ELZAB**

Although Central Europe, consisting of Poland, Czechoslovakia, and Hungary, is currently experiencing a strong recession, demand for computers is expected to grow due to the following factors:

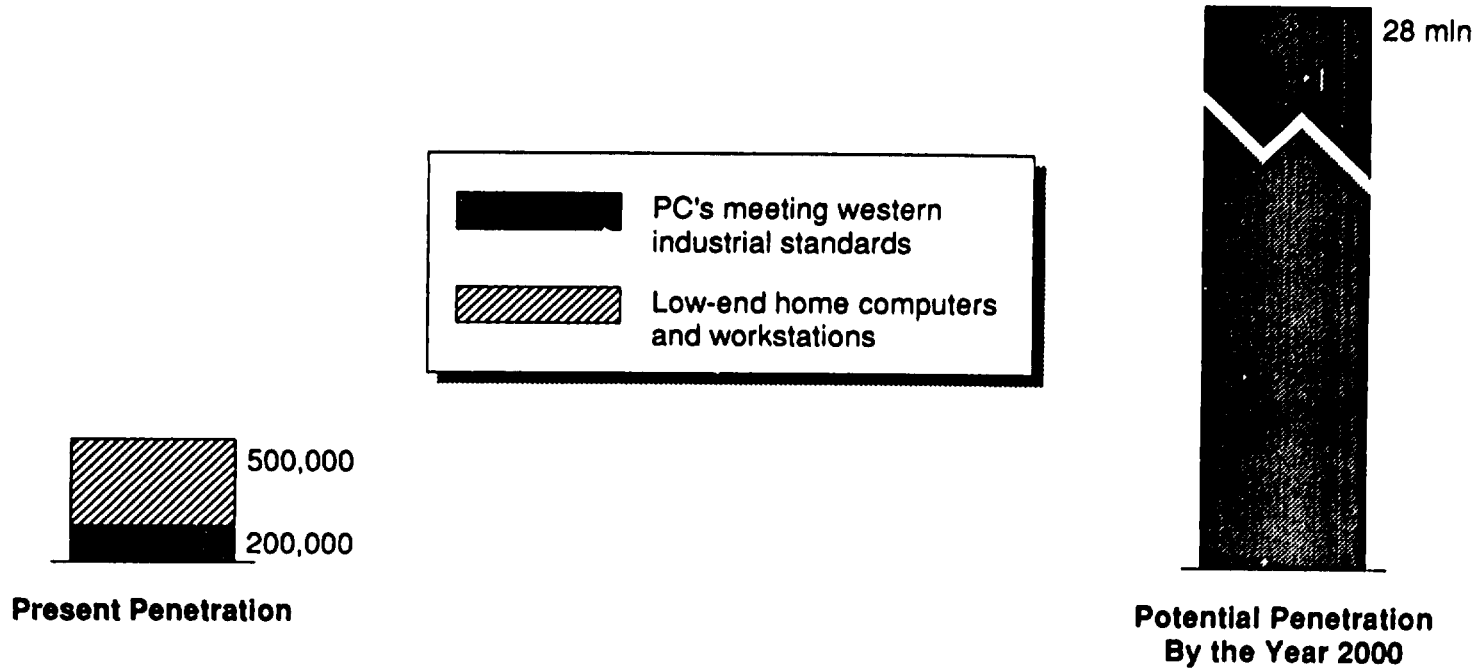
- Increased emphasis on improving each nation's infrastructure through greater computerisation of such sectors as banking, hotels, retail and telecommunications
- Increased emphasis on educating students and workers in computer application resulting in more schools and computer training centres purchasing computer equipment
- Increased presence of foreign companies who are establishing and expanding their network in Central Europe
- Increased number of small and medium sized private companies that depend on computers to reduce costs, streamline operations, and improve productivity

Mera Elzab should explore the possibility of sales to these institutions and sectors using such flexible options as leasing and rentals

Computer Markets... Trends...

**MERA ELZAB, ALREADY EXPERIENCED IN TRADE WITH THE RUSSIANS, SHOULD CLOSELY WATCH CHANGES OCCURRING IN ONE OF ITS MOST PROMISING POTENTIAL MARKETS - USSR**

**Penetration of the Soviet PC Market  
(Units)**

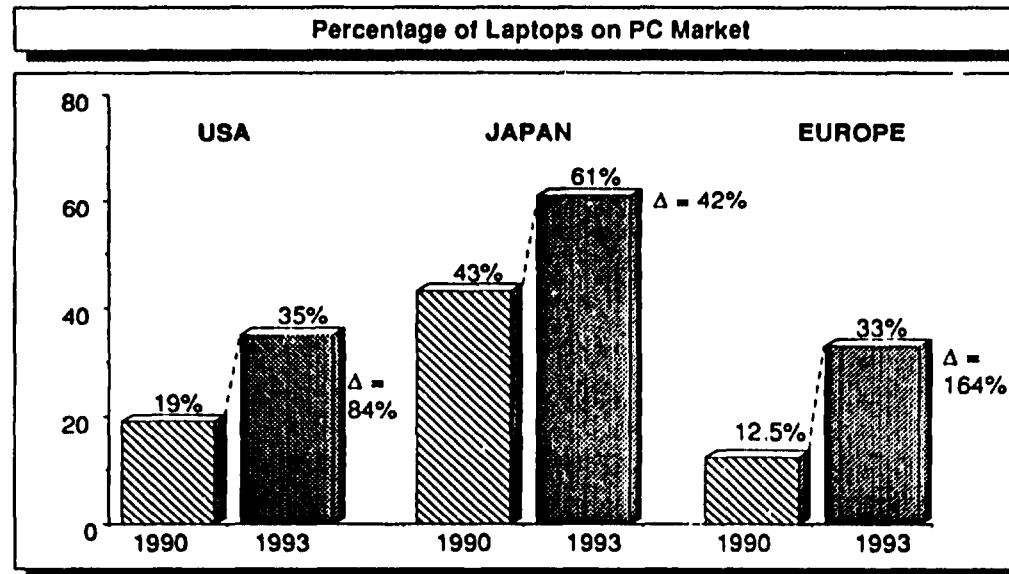


Source: Dataquest

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Computer Markets... Trends...

**AMONG PCs, LAPTOP'S SHARE OF THE MARKET SHOWS THE MOST DYNAMIC GROWTH. ALTHOUGH CURRENTLY SELLING LAPTOPS, MERA ELZAB CAN NOT PRODUCE AND COMPETE AGAINST WORLD LEADERS**



Main technologies associated with Laptop production which will dominate electronic market in mid 90's include:

- readable screens
- colour LCD
- Very large scale integration of electronics components
- new types of small-size and high capacity hard discs
- long-life nitrogen-hydrogen batteries
- new types of high capacity memories
- new types of light and reliable printed boards

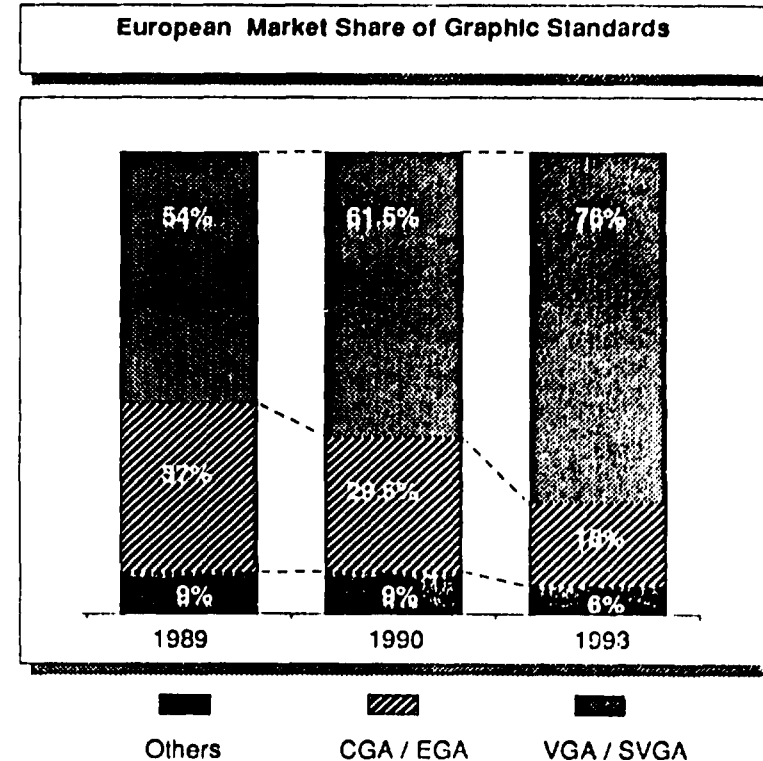
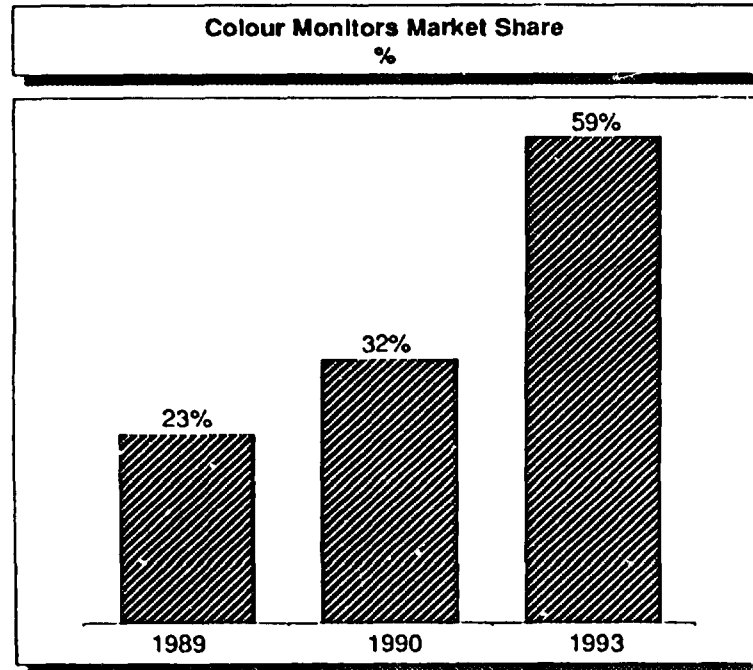
Source: Dataquest

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Computer Markets... Trends...

**ALONG WITH COMPUTERS, MONITORS ARE ENTERING AN ERA OF NEW STANDARDS : COLOUR AND HIGH RESOLUTION SCREENS. THESE DEVELOPMENTS MUST BE TAKEN INTO CONSIDERATION BY MERA ELZAB IN ORDER TO REMAIN COMPETITIVE IN THE FUTURE**

- Colour monitors are becoming standard in workstations and PCs
- VGA / SVGA is the current standard for the display industry
- The new extended Graphics Array (XGA) system of IBM which gives enhanced resolution, colour content and hardware functions represents next generation of monitor technology
- Flat screen monitors produced by Sony, Zenith provide higher quality visual resolution through decreased reflection



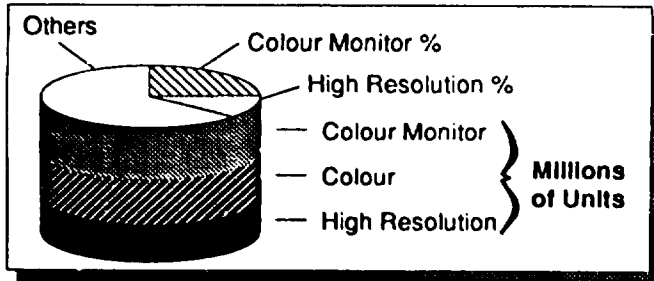
Source: BIS Strategic Decisions, Dataquest

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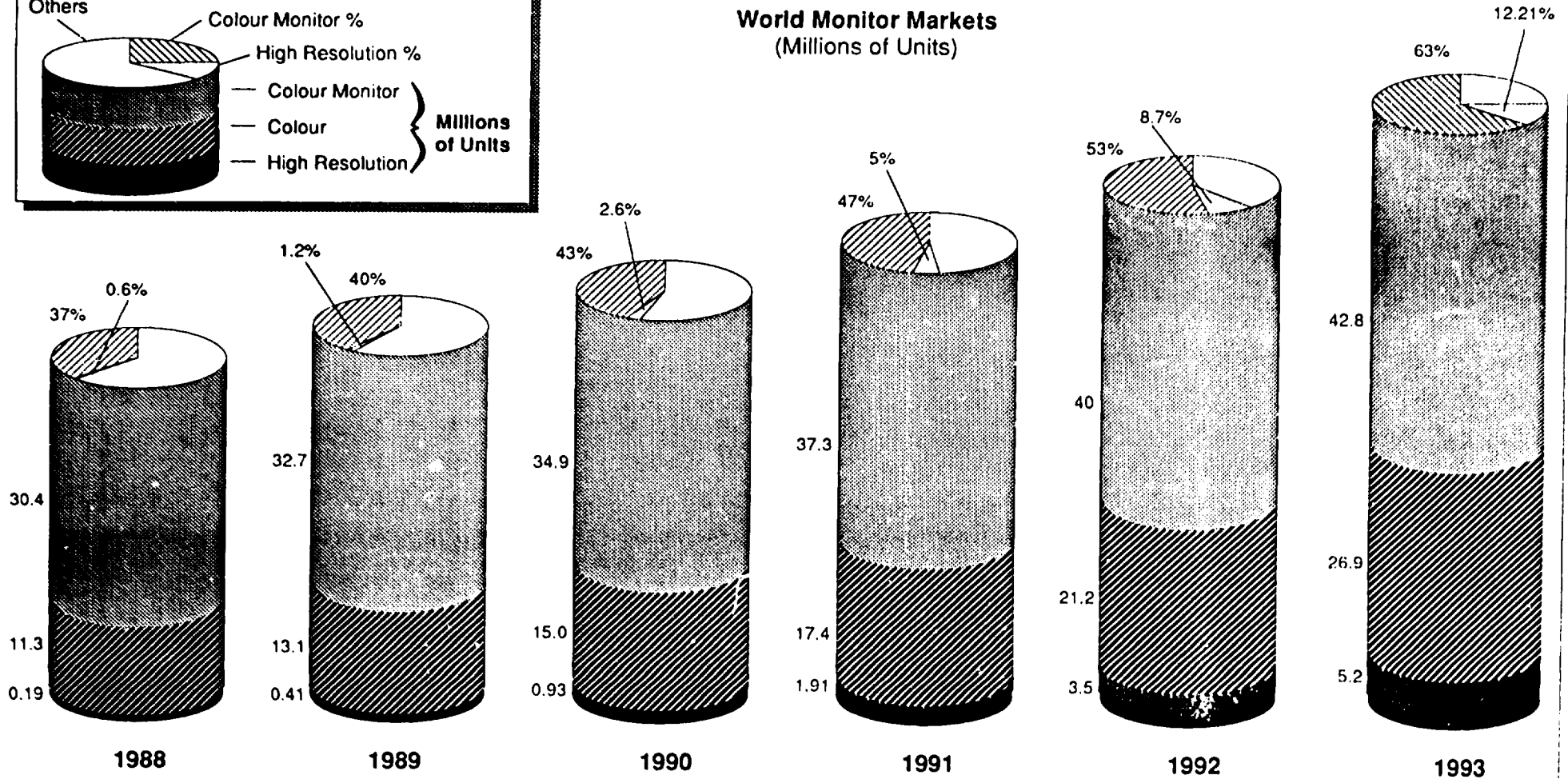


Computer Markets... Trends...

**THE WORLD MONITOR MARKET IS EXPECTED TO GROW STEADILY WITH THE SHARE OF COLOUR AND HIGH RESOLUTION MONITORS SHOWING THE GREATEST GROWTH**



**World Monitor Markets**  
(Millions of Units)



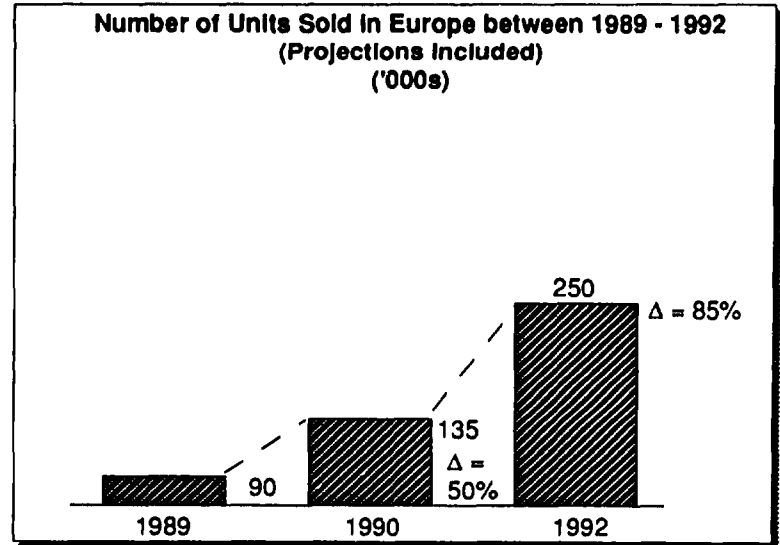
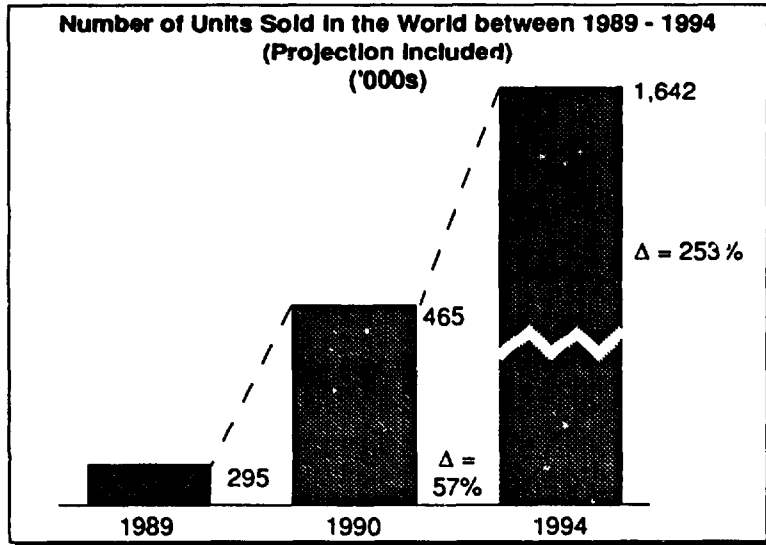
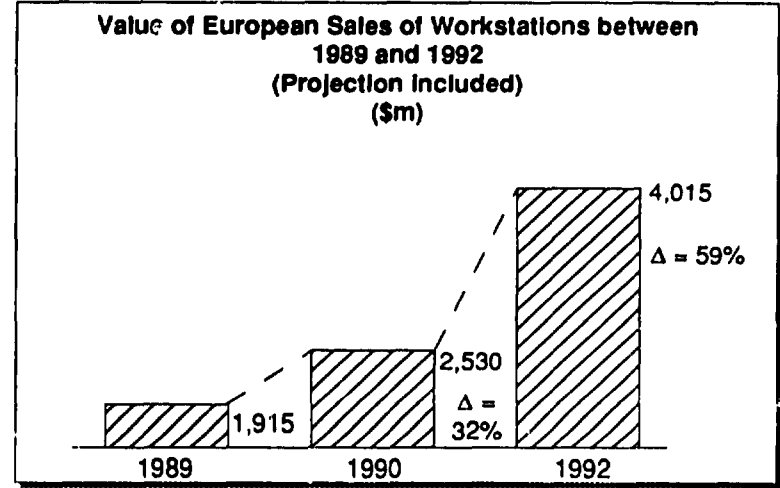
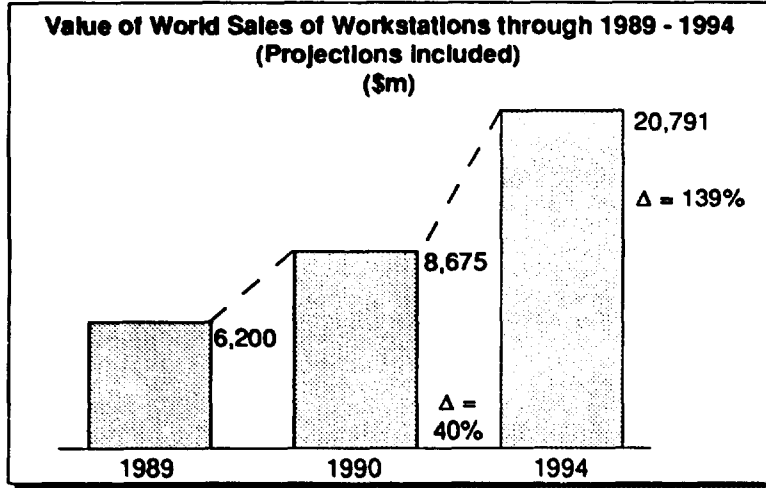
Source: Dataquest, "Monitor Market Trends 1990"

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Computer Market... Trends...

**WORKSTATION MARKET IS A STEADILY GROWING SEGMENT OF THE COMPUTER INDUSTRY**



Source: Dataquest

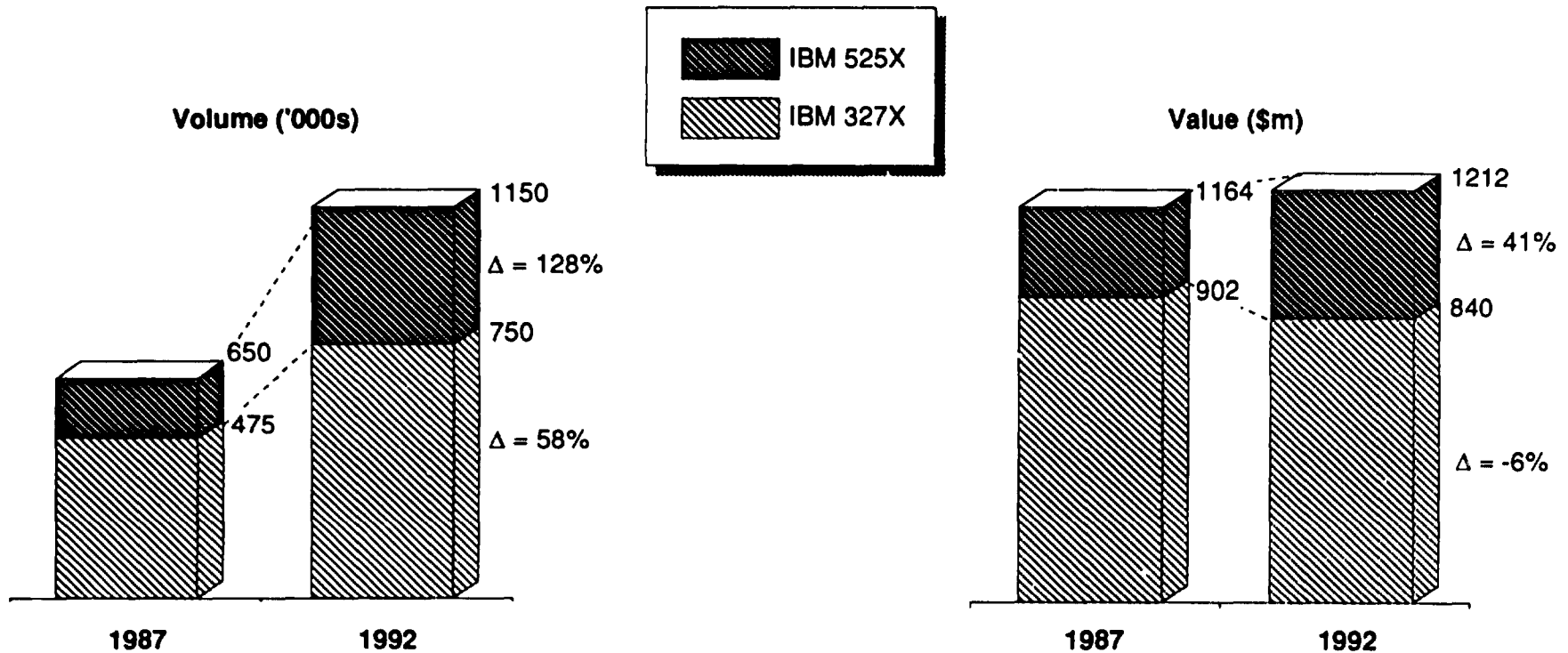
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Computer Markets... Trends

**MERA'S PRODUCT, IBM 327X COMPATIBLE , IS BECOMING UNCOMPETITIVE AS RESULT OF UNATTRACTIVE DESIGN AND LACK OF PRICE DIFFERENTIATION. AT THE SAME TIME IBM 525X IS BECOMING MORE POPULAR SHOWING THE SUCCESS OF WORKSTATIONS WITH NEW DESIGNS**

Sales of IBM Workstations in Europe



Source: Computing Journal

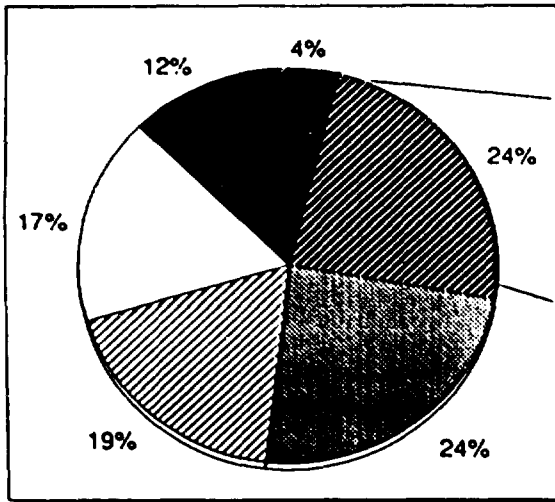
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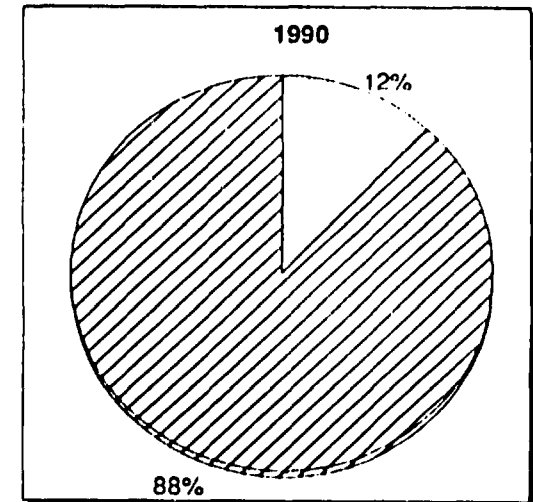
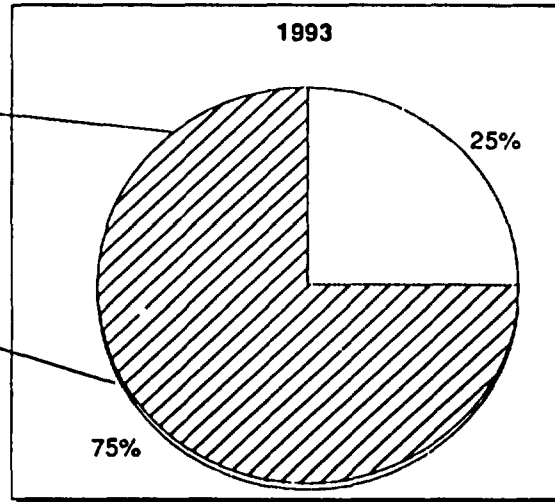
Computer Markets... Trends...

**WORKSTATIONS WILL DOMINATE THE VIDEO AND GRAPHIC PRESENTATION SYSTEMS (VGPS) WORLD MARKET. MOST WILL STILL BE LARGELY USED IN TECHNICAL DEPARTMENTS ALTHOUGH THEY ARE STARTING TO PENETRATE THE COMMERCIAL AREA.**

1993 World - VGPS Market  
Total Value \$51.5 bn



Application Area of Workstations - World



- Main Frames
- Work Stations
- Turnkey Systems
- ▨ PCs
- Graphics Hardware
- Graphics Software

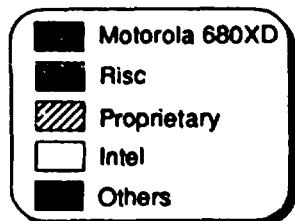
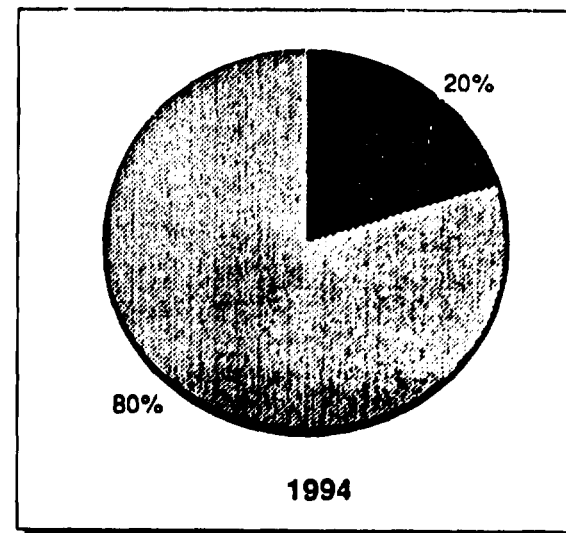
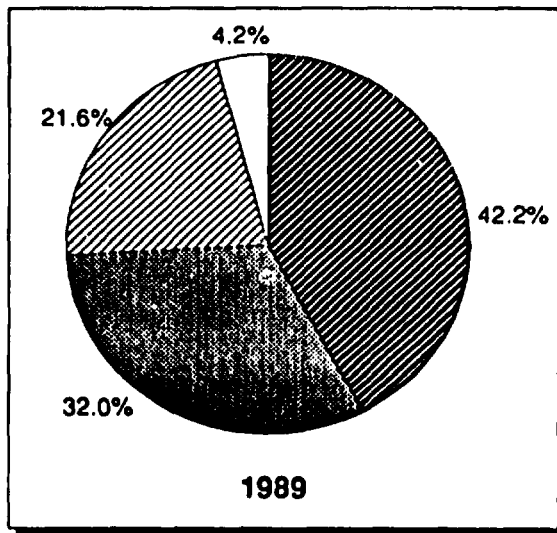
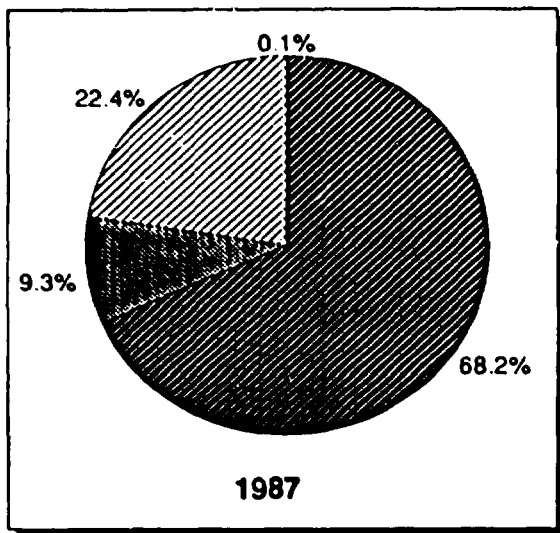
- Commercial Area
- ▨ Technical Area (mainly CAD/CAM)

Source: IPI, Electronics Journal

Computer Markets... Trends...

**RISC BASED WORKSTATIONS WILL ACCOUNT FOR 80% OF THE WORLD'S WORKSTATION MARKET IN 1994. GIVEN MERA ELZAB'S POOR COMPETITIVE POSITION, THE PRODUCTION OF WORKSTATIONS MUST BE RECONSIDERED**

Percentage by Processor

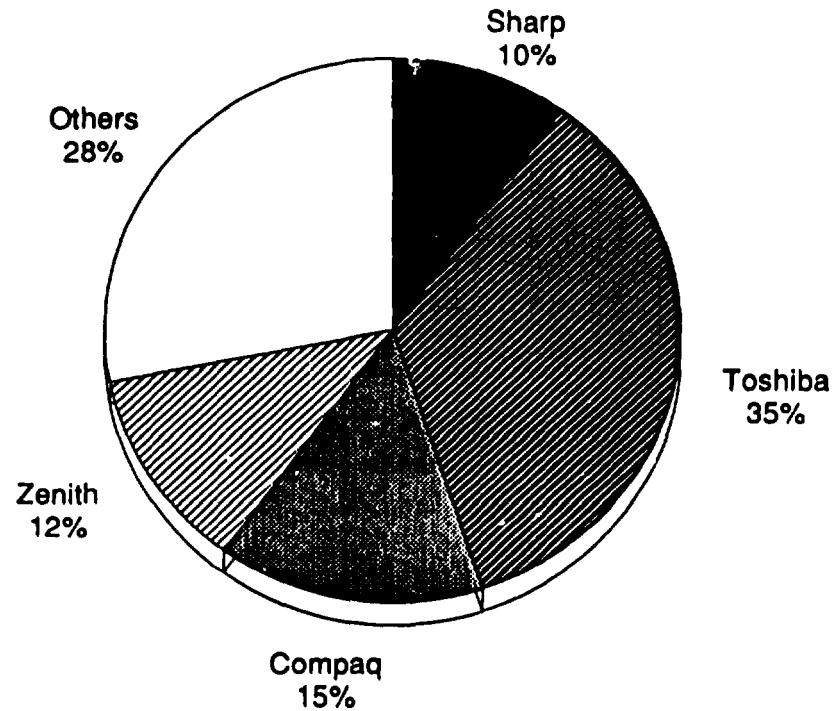


Source: Dataquest

Computer Markets... Players...

**APPROXIMATELY 72% OF THE PORTABLE COMPUTER MARKET IS CONTROLLED BY 4 MANUFACTURERS. TOSHIBA PLAYS THE LEADING ROLE. GIVEN SUCH DOMINANCE, MERA ELZAB SHOULD NOT ENTER THIS MARKET**

**Main Players In the European Market**



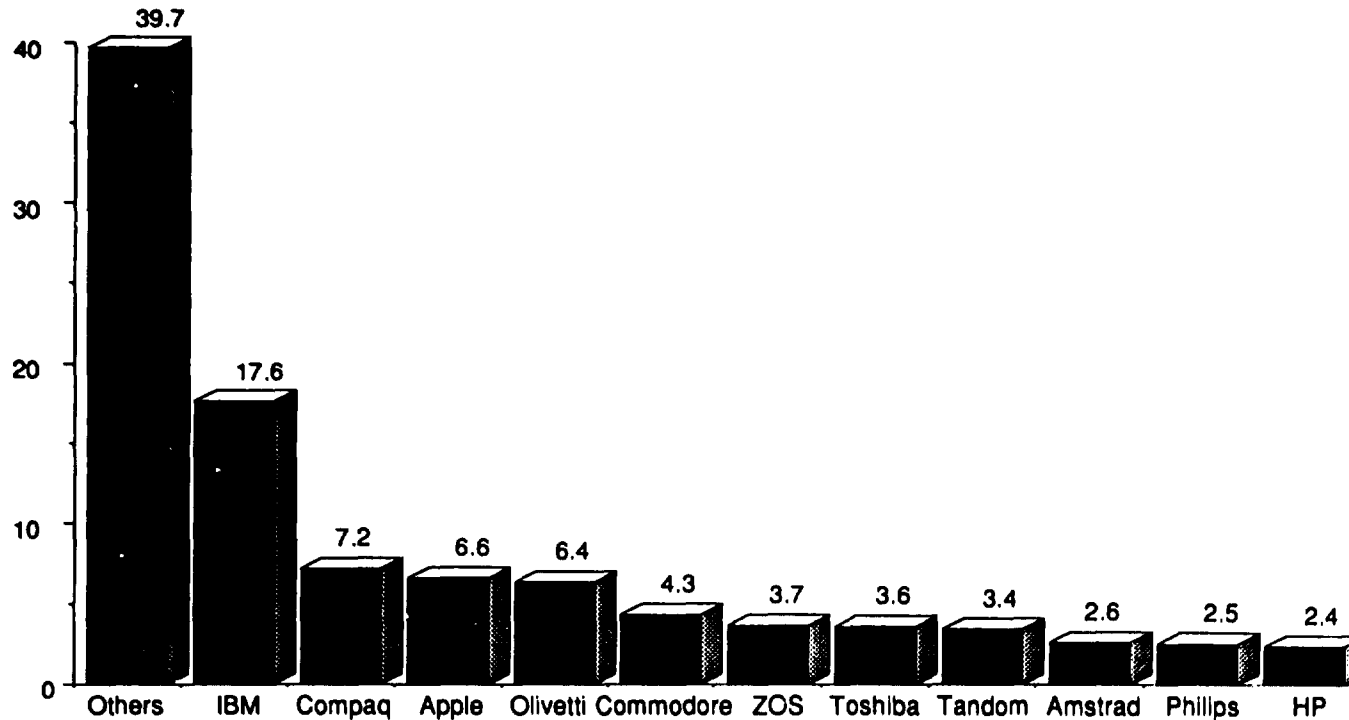
Source: Financial Times

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Computer Markets... Players...

**THE PC COMPUTER MARKET IN EUROPE IS DOMINATED BY LARGE WELL ESTABLISHED COMPANIES. THEIR DISTRIBUTION NETWORK AND DEALER SYSTEMS HAVE TO FIGHT STRONG COMPETITION OF NEW CHEAPER FAR-EASTERN PRODUCTS**

European PC Market  
1990



Computer specialists predict that by year 2000 only two US and 2 Japanese manufacturers will remain. Most of the remaining companies will be absorbed through mergers and acquisitions.

Example: Recent plans of IBM & Apple

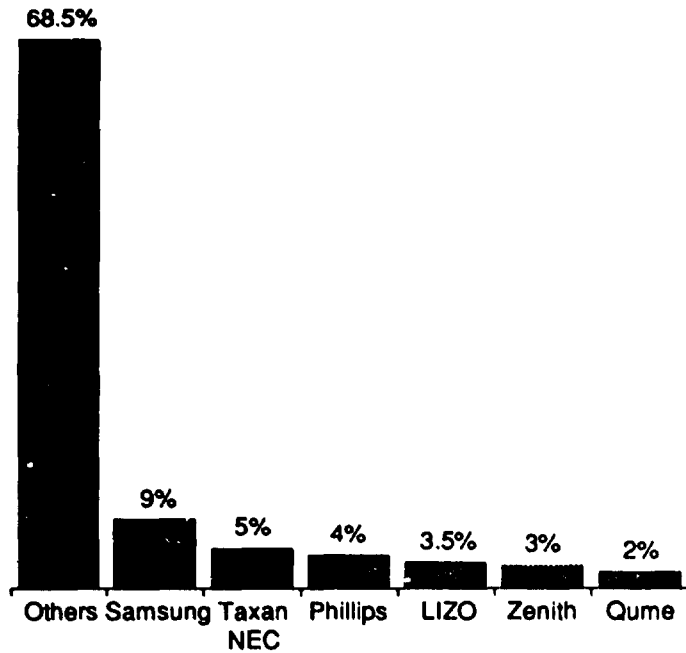
Source: Dataquest

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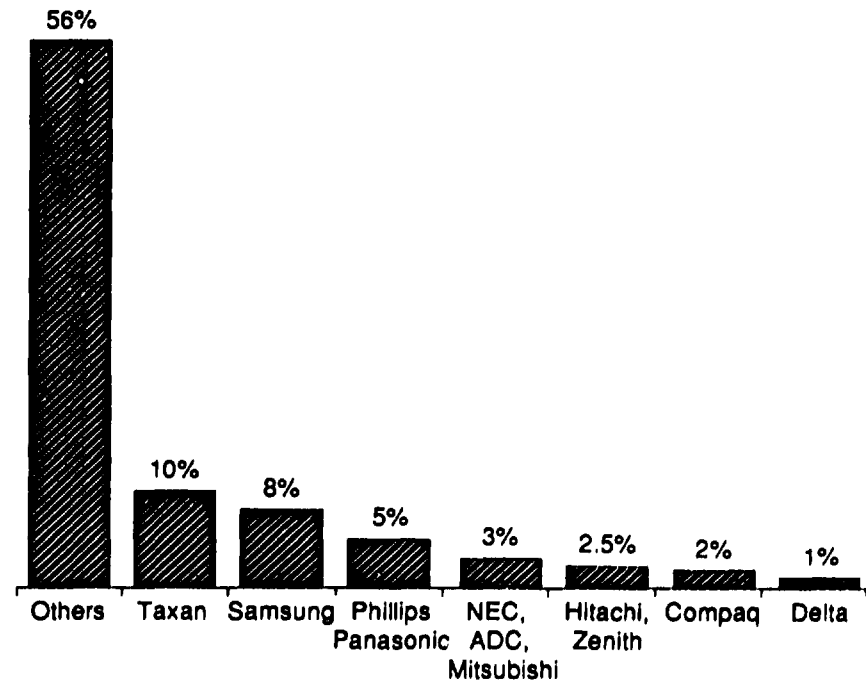
MERA07/91/LA

### MONITOR MARKET SHARES IN EUROPE SHOW GREATER DIVERSIFICATION THAN THE COMPUTER MARKET

**Monochrome Monitors**



**Colour Monitors**



Source: "Monitor Market Trends"

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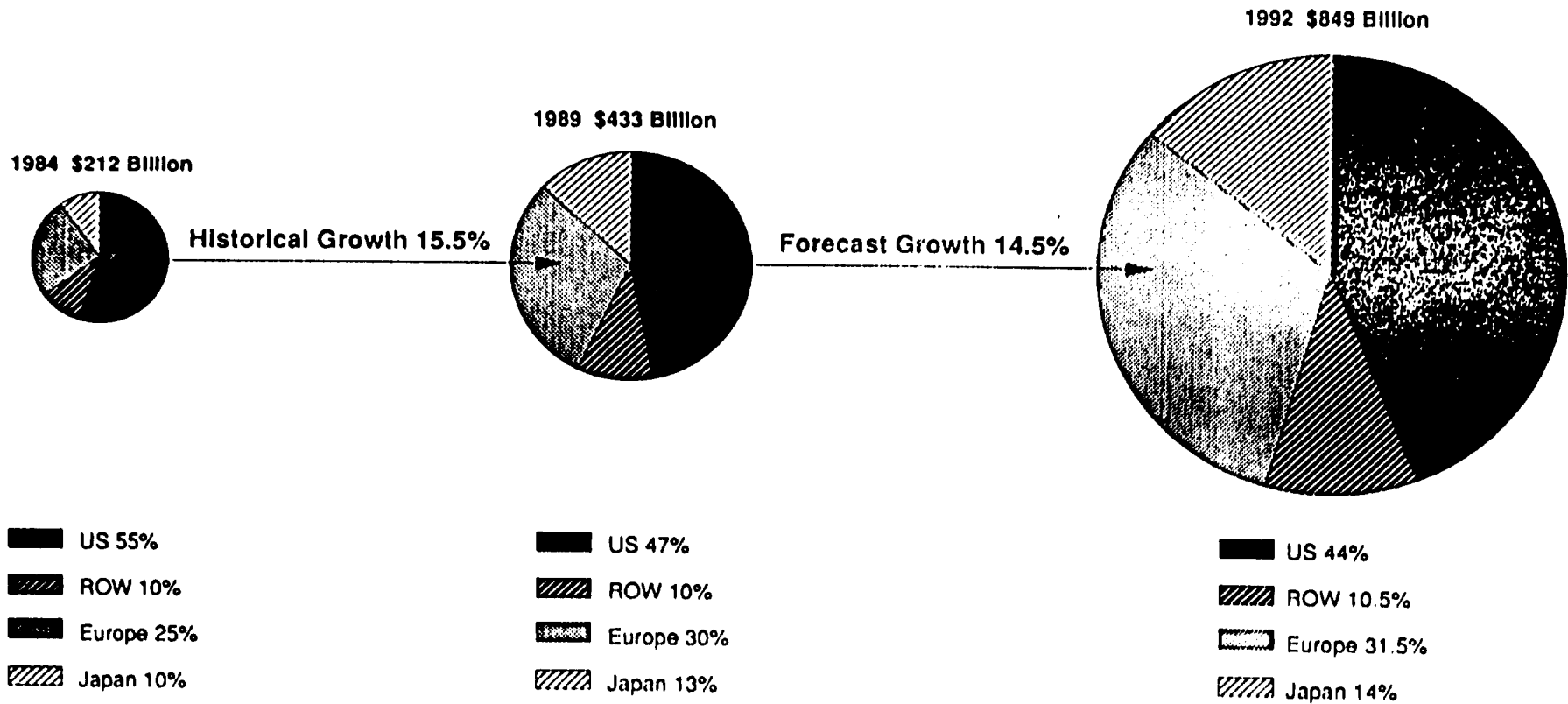
MERA07/91/PR



Computer Markets... Structure...

**THE DOMINANCE OF THE U.S. COMPUTER MARKET IS DECREASING, WHILE EUROPE'S IMPORTANCE INCREASES. JAPAN CONTINUES TO INCREASE ITS SHARE OF THE WORLD INFORMATION TECHNOLOGY MARKET. THIS GROWTH WILL POSITIVELY INFLUENCE MERA ELZAB ONLY IF ITS COMPETITIVE POSITION IS IMPROVED**

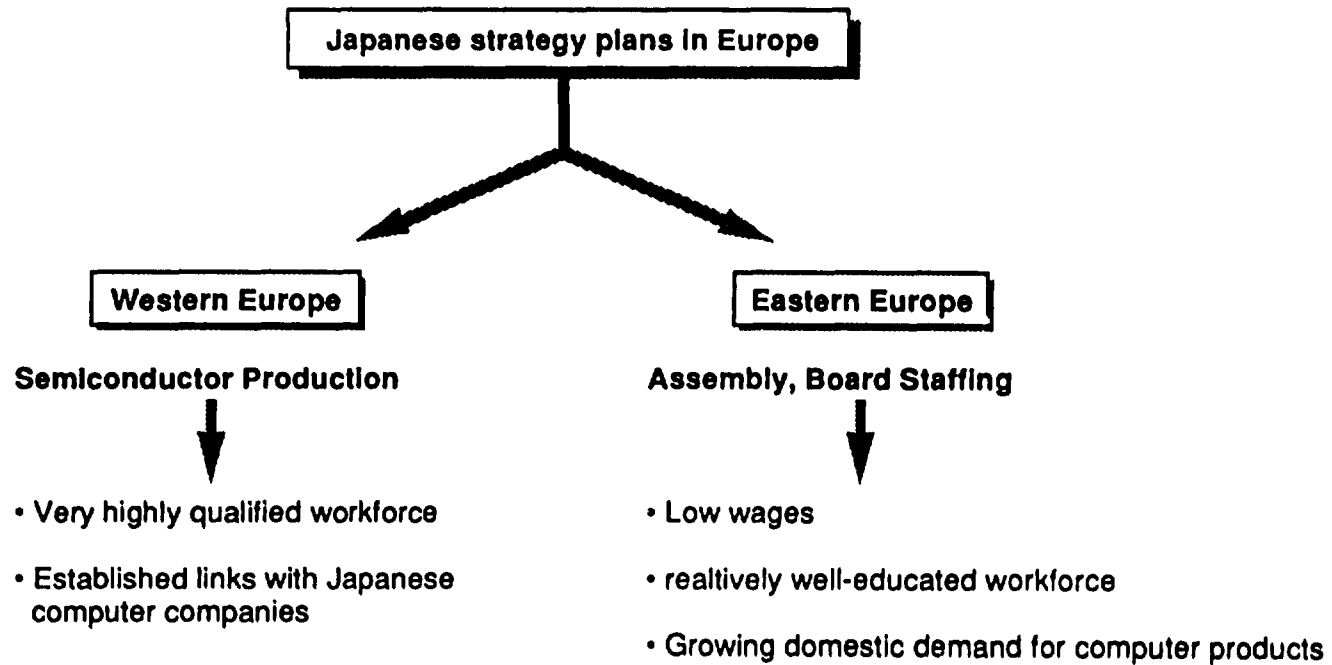
Information Technology Industry World Market



Source: Financial Times

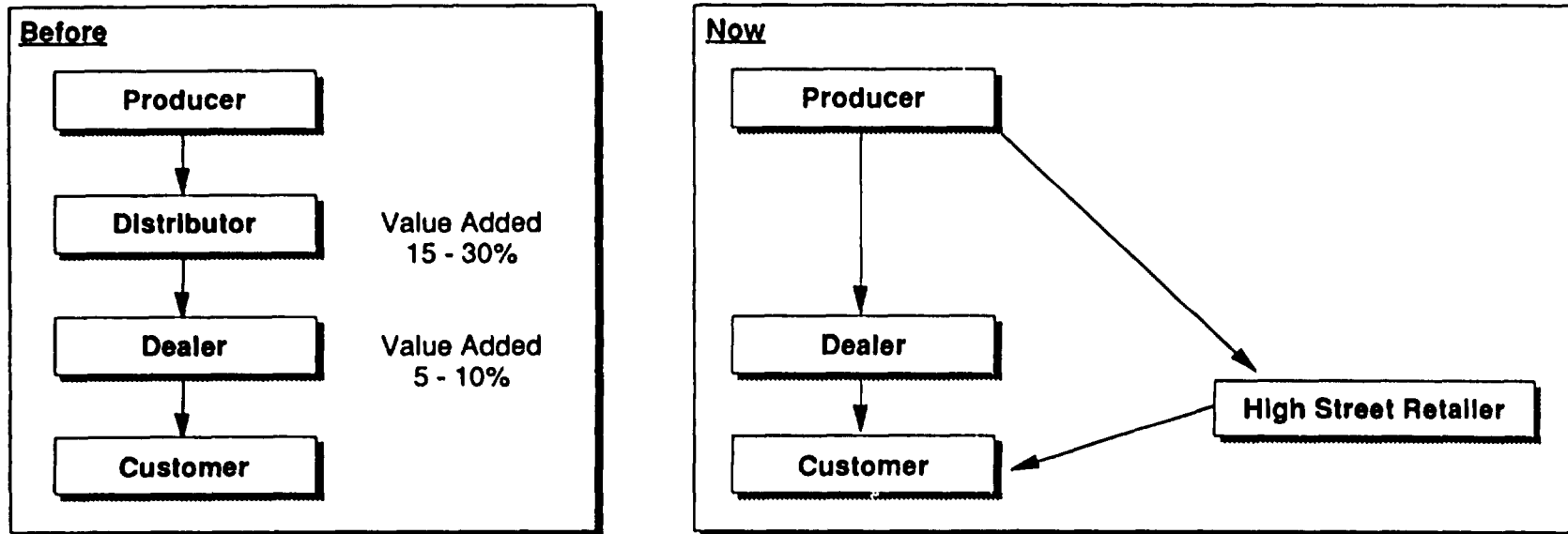
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**IN SEARCH OF NEW MARKETS, JAPANESE COMPUTER MANUFACTURERS ARE CONSIDERING EXPANDING INTO EUROPE AND SHIFTING THEIR ASSEMBLY OPERATION TO EASTERN EUROPE OFFERING POTENTIAL JV OPPORTUNITIES TO SUCH FIRMS AS MERA ELZAB**



Computer Markets... Distribution...

**DUE TO GROWING COMPETITION AND SEARCH TO REDUCE COSTS, DISTRIBUTION CHANNELS ARE BECOMING MORE STREAMLINED, REACHING RETAILERS DIRECTLY. MERA ELZAB MUST TAKE THIS DEVELOPMENT INTO CONSIDERATION AS ITS DISTRIBUTION SYSTEM EVOLVES**

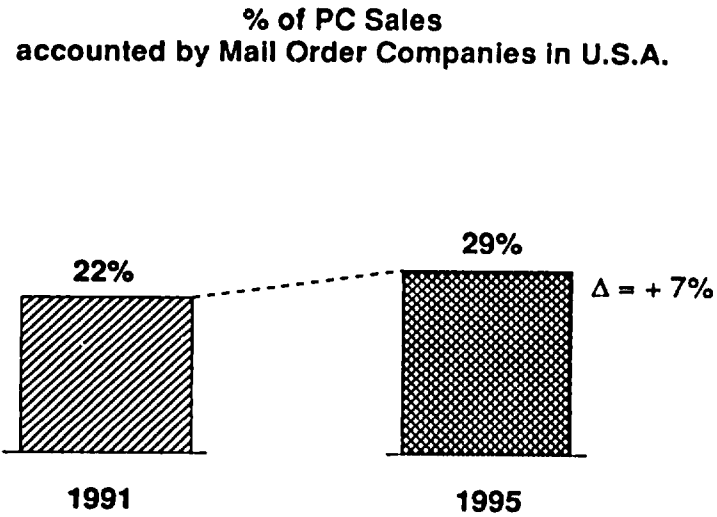


- Comments**
- Dealers are becoming more closely bound to single manufacturers
  - Independent dealers face increasing difficulties

Source: John Lettice, Editor of Microscope

Computer Markets... Distribution...

**A NEW SALES APPROACH BY AMERICAN DISTRIBUTION COMPANIES CALLED "DIRECT SALES" HAS RECENTLY RESULTED IN STRONG SALES GROWTH. MERA ELZAB MUST TRACK THE LATEST DISTRIBUTION METHODS TO REMAIN COMPETITIVE**



**Advantages of Direct Relationship Marketing:**

- mail order equipment is often as good as store brands, but it is sold for up to 30% less
- phone-sales strategy gives a company direct input from customers
- constant information on market and customers is provided to the company

Source: Business Week

Computer Market... EPOS...

## **LEADING EDGE EPOS SYSTEMS OFFER SIGNIFICANT ADVANTAGES IN CONTROL OF STOCK LEVELS AND MARKETING DATA**

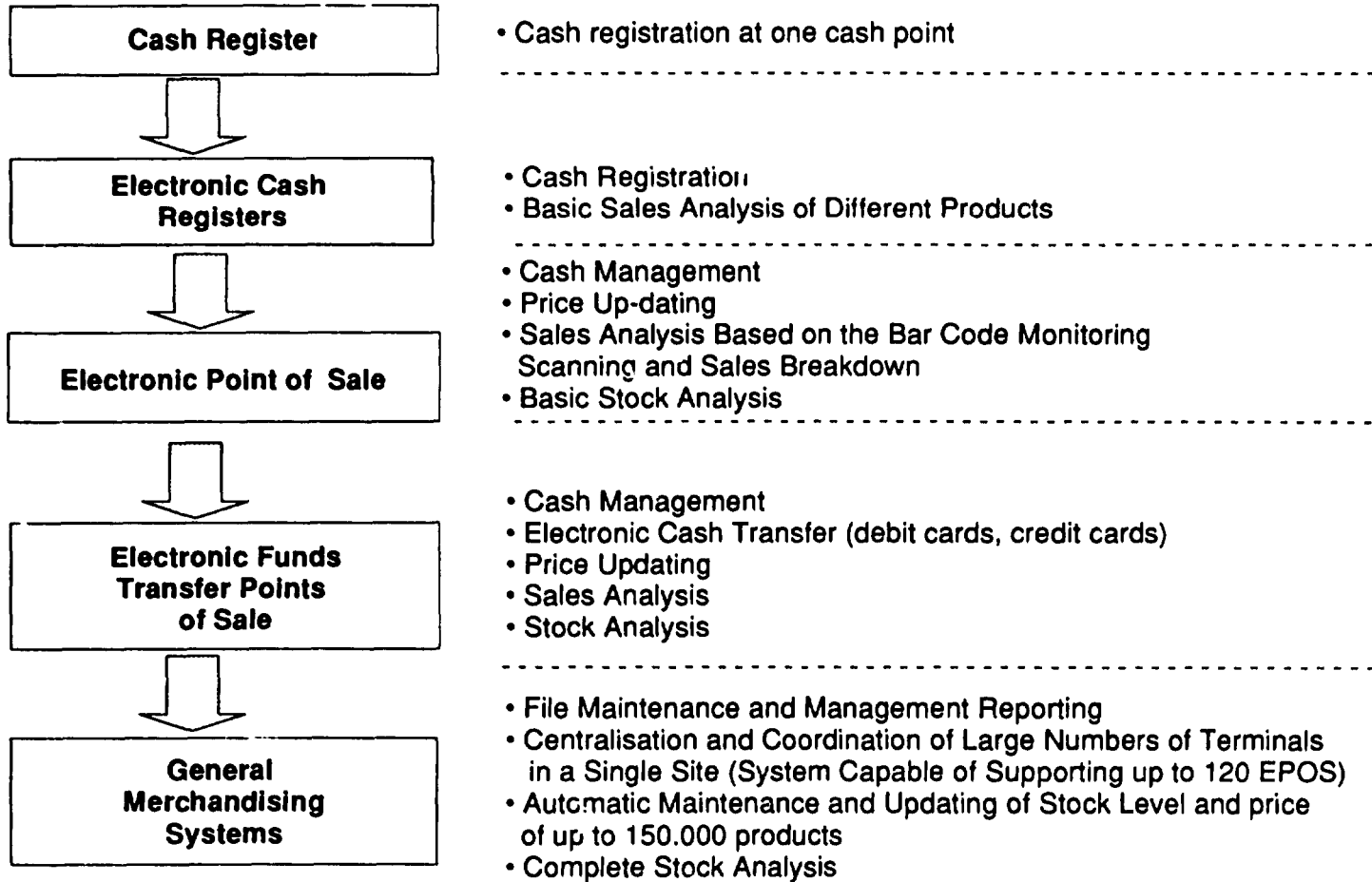
- Simplifying and speeding up the payment process
- Marketing intelligence
- Elimination of billing errors
- Accounting
- Control of stock
- Price up-dating
- Further standardisation of bar code systems
- Need to increase productivity level, reduce overheads and increase sales

These factors are responsible for the rapid penetration of EPOS into the UK retail market

Source : CET Analysis

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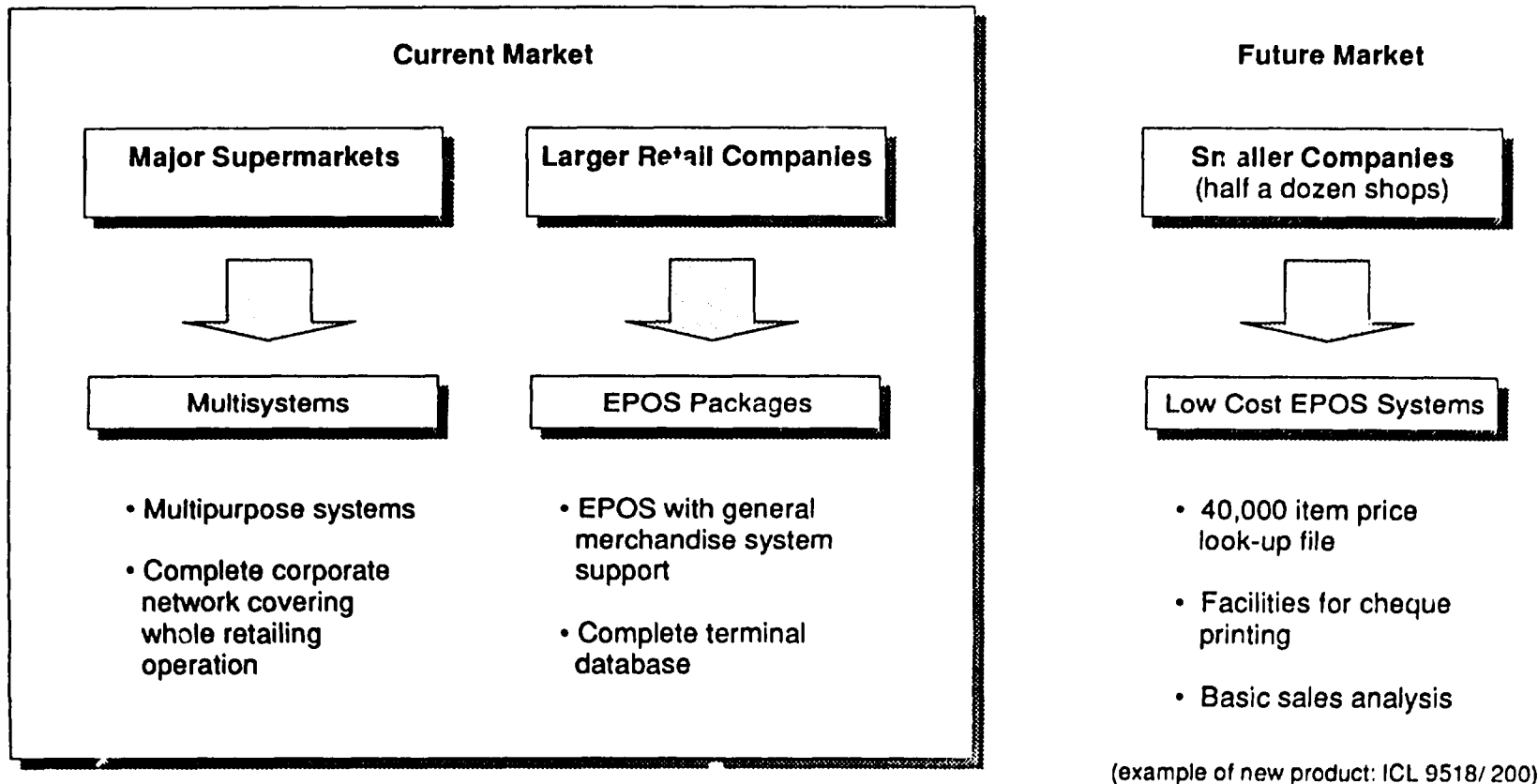
**TECHNOLOGICAL PROGRESS HAS STEADILY INCREASED THE LEVEL OF RETAIL AUTOMATION STIMULATING DEMAND FOR EPOS SYSTEMS**



Source : CET Analysis

Computer Market... EPOS...

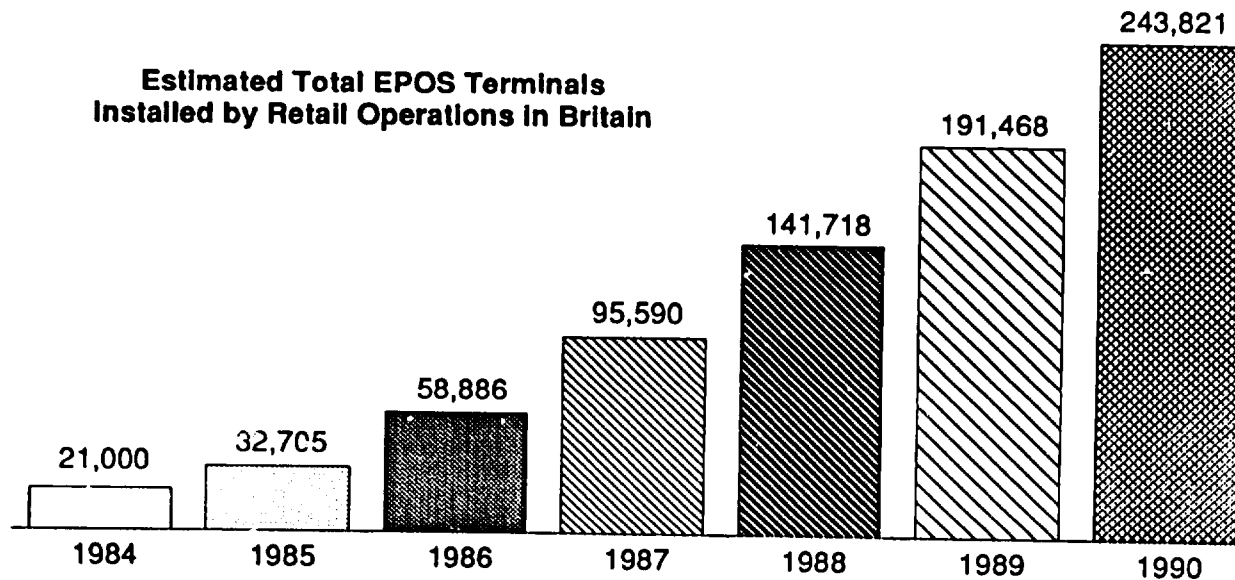
MAJOR MANUFACTURERS OF BESPOKE EPOS SYSTEMS CURRENTLY ANTICIPATE THE DEVELOPMENT OF LOW COST STANDARD EPOS SYSTEMS WHICH WILL OPEN UP THE HIGH VOLUME SMALL COMPANY MARKET. THIS IS THE SEGMENT PROMISING THE MOST POTENTIAL FOR MERA ELZAB



Source: CET Analysis

Computer Markets...EPOS...

OVER THE LAST SIX YEARS MANUFACTURING OF EPOS SYSTEMS IN THE UK HAS GROWN BY A COMPOUNDED ANNUAL GROWTH RATE OF 50%. STRONG GROWTH IS EXPECTED TO CONTINUE CREATING OPPORTUNITIES FOR NEW PRODUCERS, SUCH AS MERA ELZAB



CAGR : 1984-1990  
50.6%

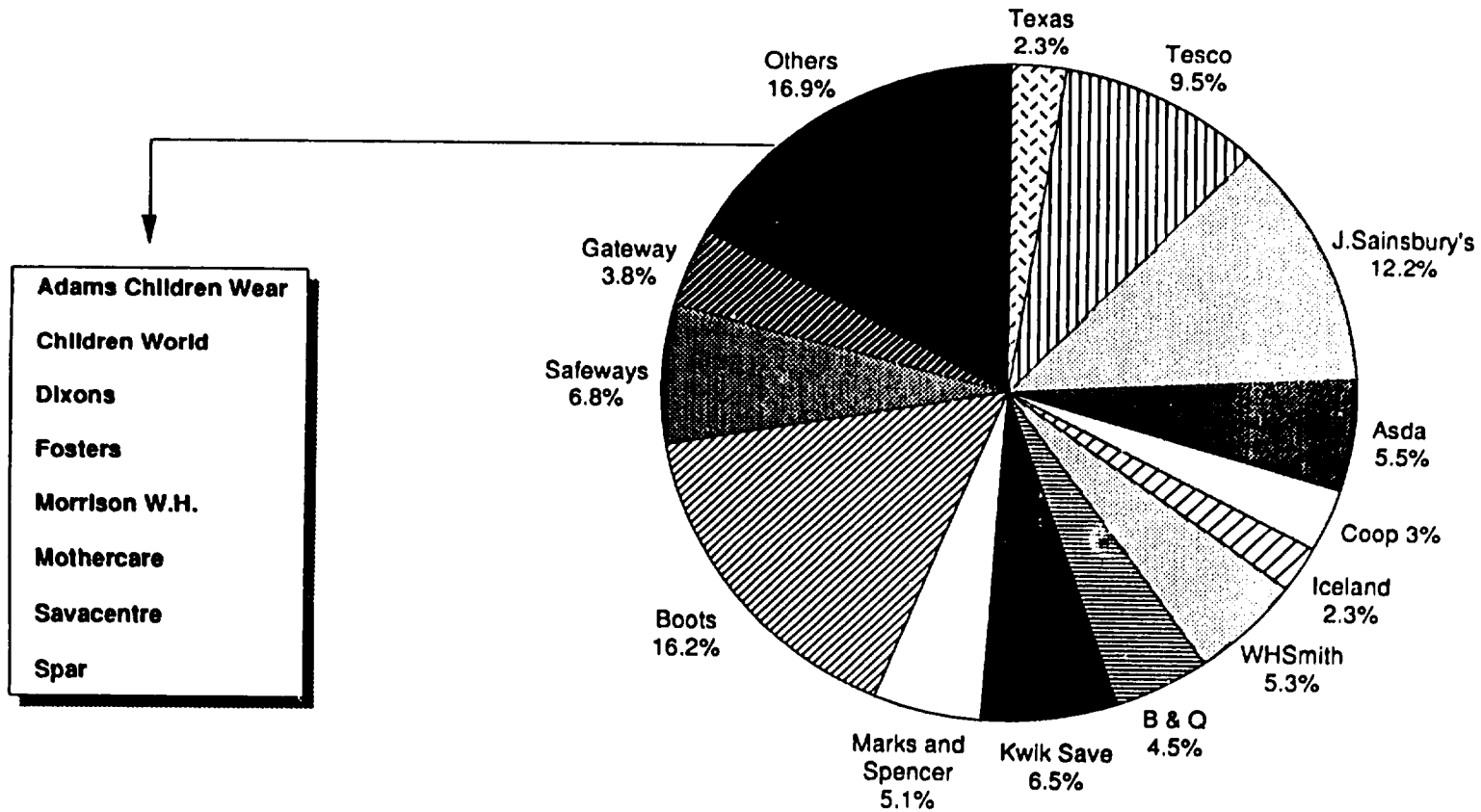
Source : ICL Estimates



Computer Market... EPOS...

**CURRENTLY EPOS EQUIPMENT ARE USED BY LARGE SUPERMARKET AND FOOD -STORE CHAINS. ALTHOUGH SMALLER RETAILERS HAVE YET TO ADOPT THE NEW TECHNOLOGY, STRONG DEMAND IS EXPECTED IN THE FUTURE**

**EPOS Users Among Retailers in UK**

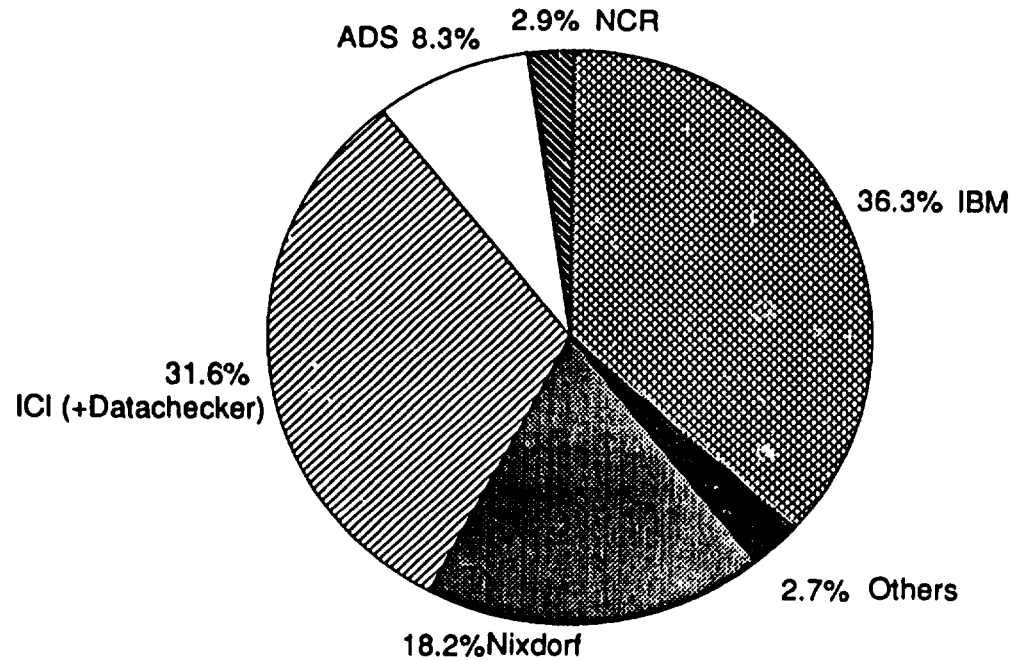


Source: Article Number Association (UK) Ltd

Computer Market...EPOS...

**SIX MAJOR COMPANIES DOMINATE THE MANUFACTURE OF EPOS SYSTEMS IN UK. TO COMPETE EFFECTIVELY, MERA ELZAB MUST HAVE A WELL DEFINED MARKETING STRATEGY AND AN EFFICIENT PRODUCTION PROCESS**

**EPOS Equipment Suppliers - April 1991\***



\* Scanning Equipment Only

Source: Article Number Association (UK) Ltd.

Computer Market... EPOS...

**THERE ARE NO EPOS MANUFACTURERS IN POLAND. EPOS SYSTEMS SOLD IN POLAND COME FROM UK, USA AND JAPAN. GIVEN NO DOMESTIC COMPETITION, MERA ELZAB IS IN A FAVORABLE POSITION TO PRODUCE EPOS SYSTEMS**

Supplier	Technical Data and Main features	Polish Software	Sales and Main Customers	Average Price of EPOS
IBM	<ul style="list-style-type: none"> <li>EPOS based on IBM or IBM compatible PC Computer</li> </ul>	NOT AVAILABLE	It takes 3 months to receive ordered equipment. IBM has just subcontracted INTERRAMS to run sales of EPOS IBM sold its EPOS to IKEA and BILLA shops	\$ 7000
ICL	<ul style="list-style-type: none"> <li>7" or 9" screen, floppy and hard drives, printer</li> <li>Customised keyboards</li> <li>Standard Interface</li> <li>Bar code reader</li> <li>Credit card reader</li> </ul>	NOT AVAILABLE	ICL has been focusing on big installations. ICL has sold most of its EPOS to PEWEX, Poland's biggest department store chain	\$ 6700
HALO	<ul style="list-style-type: none"> <li>Inventory tracking systems</li> <li>Customised software</li> <li>Capability of working in networks</li> </ul>	Halo has the only software application in Polish which includes all types of commercial transactions run in Poland. Halo is already working on new software including new VAT regulations for Poland.	Halo has assisted PEWEX and BALTONA in installing EPOSES in their shops. Halo is now considering installing its equipment in network of drugstores on leasing or credit basis. It is also negotiating with POLMOZBYT car body shops	\$ 4000
INTER-COMMERCE	<p>SHARP 4100 (EPOS BASE)</p> <ul style="list-style-type: none"> <li>Possibility of connecting to P C</li> <li>Capability of controlling up to 15 EPOS</li> </ul>	Communication programme between EPOS and PC available also simple Polish customised software is offered.	No sales recorded	price of 3 EPOSE systems with software : \$ 20000 (PC not included)
VITRUM	<p>SHARP ER 2910 (EPOS BASE)</p> <ul style="list-style-type: none"> <li>possibility of connection to PC</li> <li>capability of controlling up to 15 EPOS</li> <li>Simple inventory track features available. (Control print -outs)</li> </ul>	NOT AVAILABLE	No sales recorded	\$ 800 (PC and software not included)

Source: CET Analysis

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Computer Market... EPOS...

**EPOS SYSTEMS CURRENTLY SOLD IN POLAND ARE DEDICATED MAINLY TO BIG SUPERMARKETS AND STORE NETWORKS. SMALLER RETAILERS ARE EXPECTED TO PURCHASE EPOS SYSTEMS IN GREATER NUMBERS WITH THE EXPECTED INTRODUCTION OF SALES TAX NEXT YEAR. THESE FACTORS ARE EXPECTED TO POSITIVELY INFLUENCE DEMAND**

Causes behind this development and future prospect of EPOS in Poland include:

- Average price of EPOS is still too high for a small and medium retail shop in Poland
- There is little knowledge of EPOS advantages among Polish shop owners
- Commercial offers on EPOS systems are mainly aimed at big customers (superstores, warehouses)
- As it becomes more important to carefully run stock management and analyse sales, shop managers will pay more attention to services brought by EPOS
- Future of EPOS systems in Poland is very much dependent on quality of delivered software
- Sales tax is expected to be introduced next year stimulating demand for EPOS systems

Source : CET Analysis

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Computer Markets... EPOS...

**EPOS DISTRIBUTORS IN POLAND FOCUS THEIR ATTENTION ON THE DEVELOPMENT OF SPECIALISED SOFTWARE FOR POLISH CUSTOMERS. MERA ELZAB CAN COMPETE EFFECTIVELY GIVEN XYLLYX INTERNATIONAL'S SOFTWARE EXPERTISE THAT CAN BE APPLIED TO THE POLISH MARKET**

**EFFORTS ARE MAINLY CONCENTRATED ON :**

- development of Polish versions of software
- creating software for small and medium size companies
- designing software which includes specific functions for the Polish market

Source: CET Analysis

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Computer Markets... Poland...

**THERE ARE TWO STAGES IN THE HISTORY OF POLISH COMPUTER MARKET THAT HAD AN IMPORTANT IMPACT ON MERA ELZAB'S DEVELOPMENT**

**(I) First stage is described by:**

- heavy protection of computer industry
- servicing captive market
- inability to react quickly to new technological development
- lack of sensitivity to price and quality

**(II) Second stage (after 1989):**

- end of government protectionism
- increased importance of price and quality
- impact of new trends and technologies on domestic market
- dynamic development of software

Source: CET Analysis

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Computer Markets... Poland...

**IN COMPARISON TO TOP WORLD MANUFACTURERS OF PCs, POLAND'S CONTRIBUTION TO THE OVERALL EFFORT IS INSIGNIFICANT. DESPITE THIS FACT, MERA ELZAB SHOULD EXPLORE BUSINESS OPPORTUNITIES OFFERED BY THIS GROWING SEGMENT**

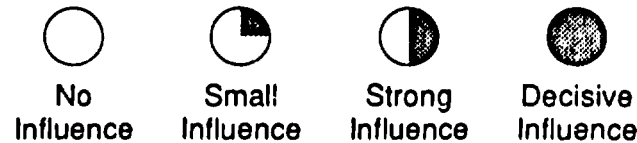
The Main Assemblers/ Wholesalers of PC's In Poland are:

Name	Near Established	No. of Employees	Branch Offices, Dealers, Representatives	Main Activities	Assembly Capacity	Profile of Customers	Turnover/ Sales
<b>Protech PTE. Ltd Warsaw</b>	1986	70	Warsaw: 2 shops and head office Dealers/ Representatives placed in: Poznan, Krakow, Lublin, Katowice, Lodz, Gdansk, Wroclaw, Ostrava (Czechoslovakia) Some other 30 firms sell under Protech logo	Trading computers, Peripherals and Software Authorised dealer of Mircosoft and Ashton software	2000-3000 units/ month	Purchases > \$1000 up to 20-30% • individuals • small enterprises Purchases > \$15000 up to 20-30% • medium size enterprises • small state companies • foreign companies Purchases > \$5000 up to 30% • big enterprises • universities • research depart. Dealers re-sellers ~20%	\$2min/ month for the last 6 months Sales are to reach level of 4000-5000 units in October
<b>Optimus PTE Ltd Nowy Sacz</b>	1988	45	Headquater: Nowy Sacz Branch Offices: Katowice, Warszawa, Katowice, Wroclaw Besides some 20 showrooms and service points and 40 sales point of licensed software	Trading computers, Peripherals and Software: Mircosoft Software Link	1500 units/ month	80% of customers are companies	1989 ZI 465 mln 1990 ZI 35 mln  1991 (6 months) \$5.5 mln
<b>ECS Partnership Warsaw</b>	1989	104	Warsaw (3 points), Gdansk, Kalisz, Katowice, Kielce, Lodz, Plock, Poznan, Szczecin, Torun, Wroclaw	Trading computers	1000 units/ month	50% Individuals 50% companies	\$0.5 mln/ month
<b>ATM Partnership Warsaw</b>	1986	85	Head Office: Warsaw Representatives: Wroclaw, Gdansk, Bialystok Two show rooms in Warsaw	Trading computers	600 units/ month	Companies, offices, individuals	\$0.5 mln/ month

Computer Markets... Poland...

**CUSTOMER APPLICATION OF COMPUTER SYSTEM PROVIDES THE ANSWER TO THE QUESTION: WHAT KIND OF COMPUTER SYSTEM TO BUY? MERA ELZAB NEEDS TO DECIDE ON WHICH FACTORS AND SEGMENTS TO CONCENTRATE GIVEN ITS CURRENT PRODUCT MIX**

Decision Factor \ Customer/ Application	Low Prices	Brand	Licensed Software Provided with the System	After Sales Service	Training
<ul style="list-style-type: none"> <li>Students - word processing simple calculations, CAD</li> <li>Engineers - calculations, CAD, databases, word processing</li> <li>Small companies - databases, word processing, small financial packages</li> </ul>					
<ul style="list-style-type: none"> <li>Medium sized firms - DTP, word processing, LANs, Data Bases, CAD, CAM</li> <li>Small offices and state companies - LANs, databases, word processing</li> </ul>					
<ul style="list-style-type: none"> <li>Big companies like insurance firms - big databases, networks</li> <li>Banks - Networks, fast databases, modems, reliable peripherals</li> </ul>					



Source : CET Analysis

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Computer Markets... Poland...

**POLISH CUSTOMERS ARE VERY PRICE SENSITIVE. AS A RESULT POLISH IMPORTERS TRY TO FIND THE CHEAPEST SOURCES OF SUPPLY**

- This has its negative impact on the quality of imported equipment.  
Cheap sources of components tend to change frequently, making it difficult for manufacturers to ensure stable level of quality and price
- Mera Elzab imports components from AOC, a Taiwan based company.  
This arrangement ensures reliable quality and reasonable prices.  
As such, Mera Elzab can compete effectively against domestic producers

Source: CET Analysis

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**SWOT ANALYSIS OF POLAND PROVIDES THE FOLLOWING FINDINGS:**

**STRENGTHS**

- low wages of workers
- well educated workforce
- very large potential market
- favourable location between Western and Eastern Europe

**WEAKNESSES**

- unstable import / duty policy
- lack of management and marketing skills of Polish managers
- low technical base and equipment
- poor understanding of computer system, their advantages and implementation

**OPPORTUNITIES**

- growing demand in Central and Eastern Europe as economy modernises
- growing interest of foreign investors in Eastern Europe

**THREATS**

- unstable and unclear economic situation of the country

Computer Markets... Conclusions...

**MERA ELZAB PARTICIPATES IN A MARKET WHICH CAN BE DESCRIBED AS:**

- Extremely competitive and dynamic
- Dominated by big manufacturers but allowing many small market share producers to participate
- Includes the biggest potential markets, in terms of value and volume
- Very difficult for new entrants, as the global computer market is currently in recession
- Difficult for Mera to penetrate without foreign investments, know-how and marketing skills

Source: CET Analysis

Computer Markets...Conclusions...

**DESPITE INTENSE COMPETITION, MERA ELZAB CAN COMPETE SUCCESSFULLY GIVEN RIGHT PRODUCT MIX, MARKETS AND PRICES**

- The monitor market is dominated by large producers although allowing many small market share producers to participate. As such Mera should maintain its monitor assembly line, focussing not only on the Russian market but also on the expanding domestic network of computer dealers
- Due to the expected growth in demand for EPOS systems in the west and in Poland, Mera Elzab should develop a production of EPOS systems. Software for EPOS systems must be designed to meet particular requirements of the potential British and Polish customers and must be price competitive

Source: CET Analysis

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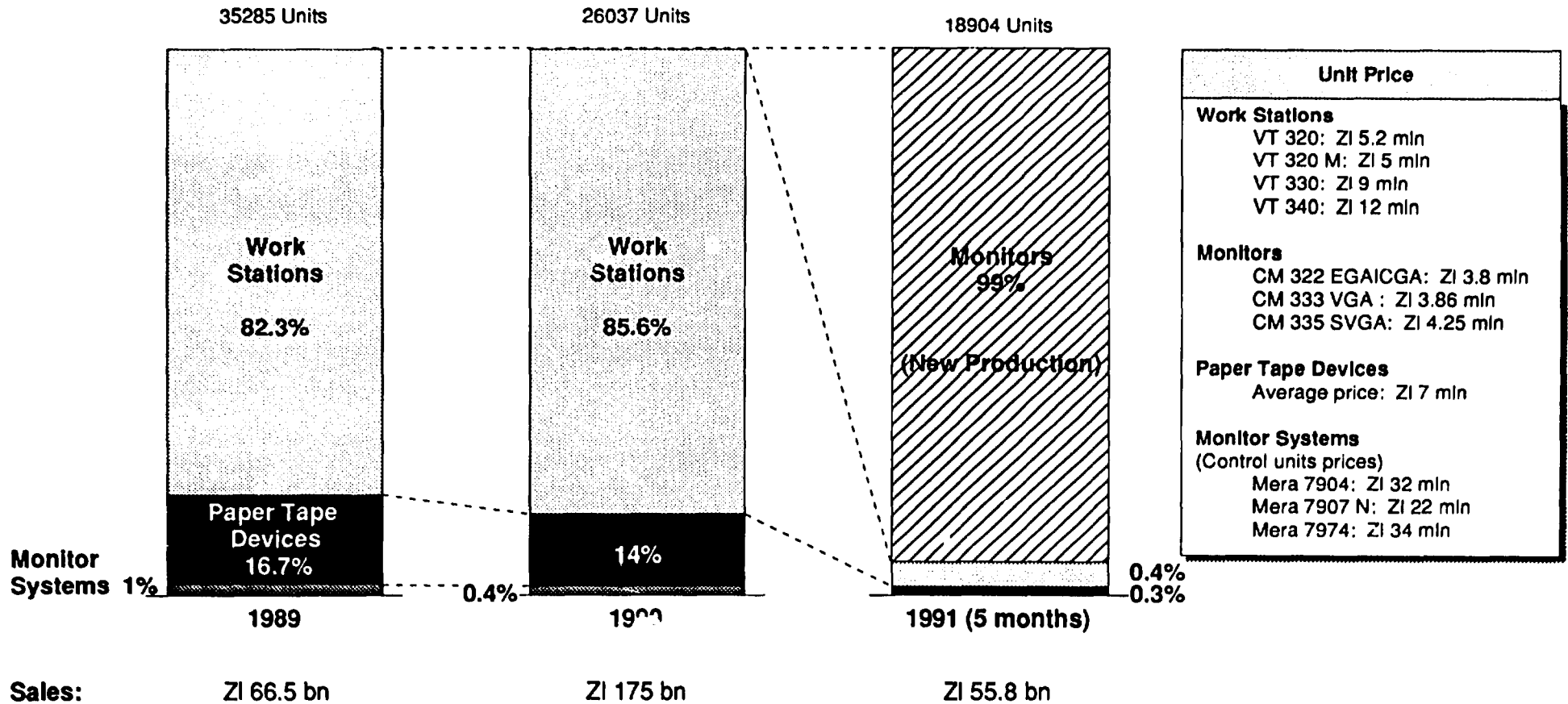
## CONTENTS

- I EXECUTIVE SUMMARY AND RECOMMENDATIONS
- II COMPUTER MARKETS
- III MERA ELZAB DIAGNOSTIC**
- IV STRATEGIC BUSINESS PLAN
- V APPENDIX

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**MERA ELZAB HAS MOVED FROM PRODUCING WORKSTATIONS IN 1990 TO ASSEMBLING MONITORS IN 1991**

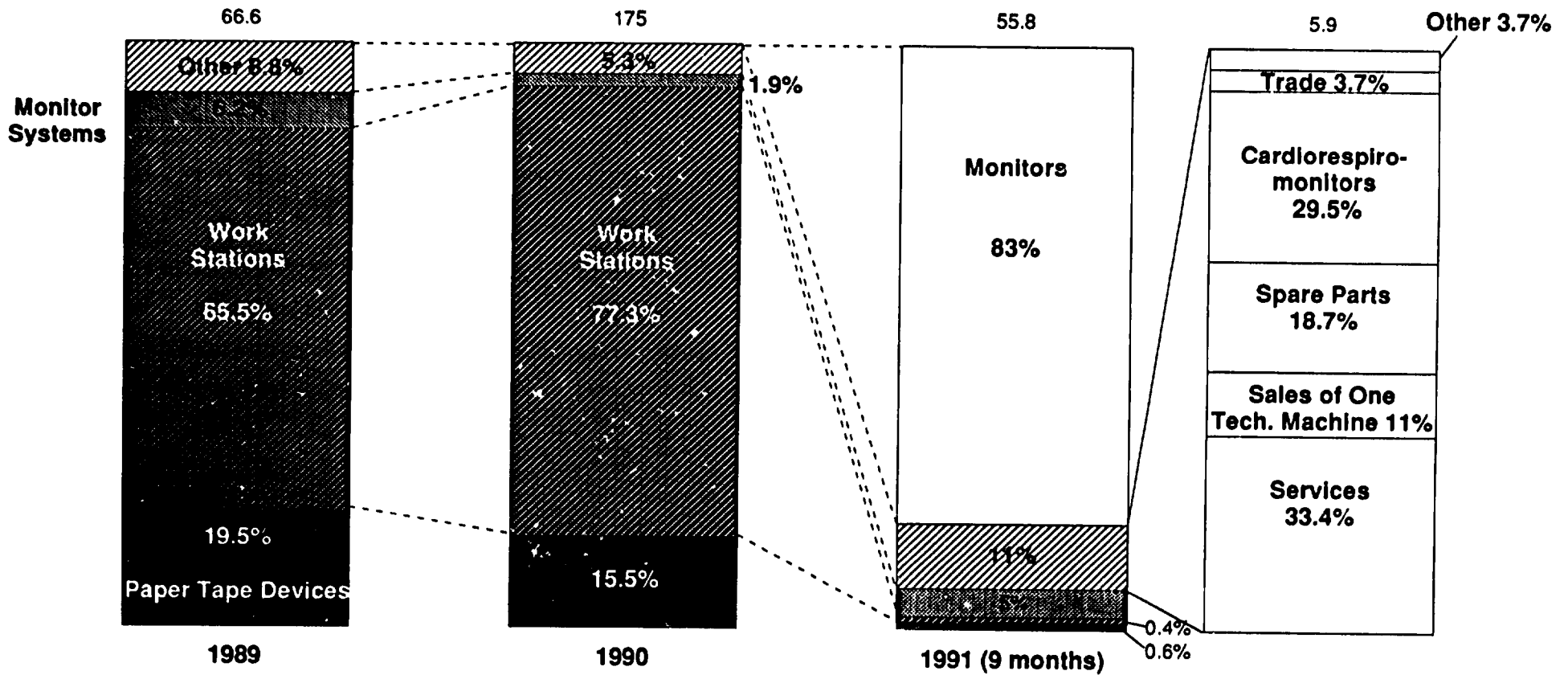
Sales Volume-Units



Source: Mera Elzab/ CET Analysis

**MERA ELZAB'S PRODUCT STRUCTURE INDICATES A MOVE TOWARDS LOWER VALUE ADDED PRODUCTS**

**Mera Elzab Sales: 1989 - 91**  
(Zl Bln)



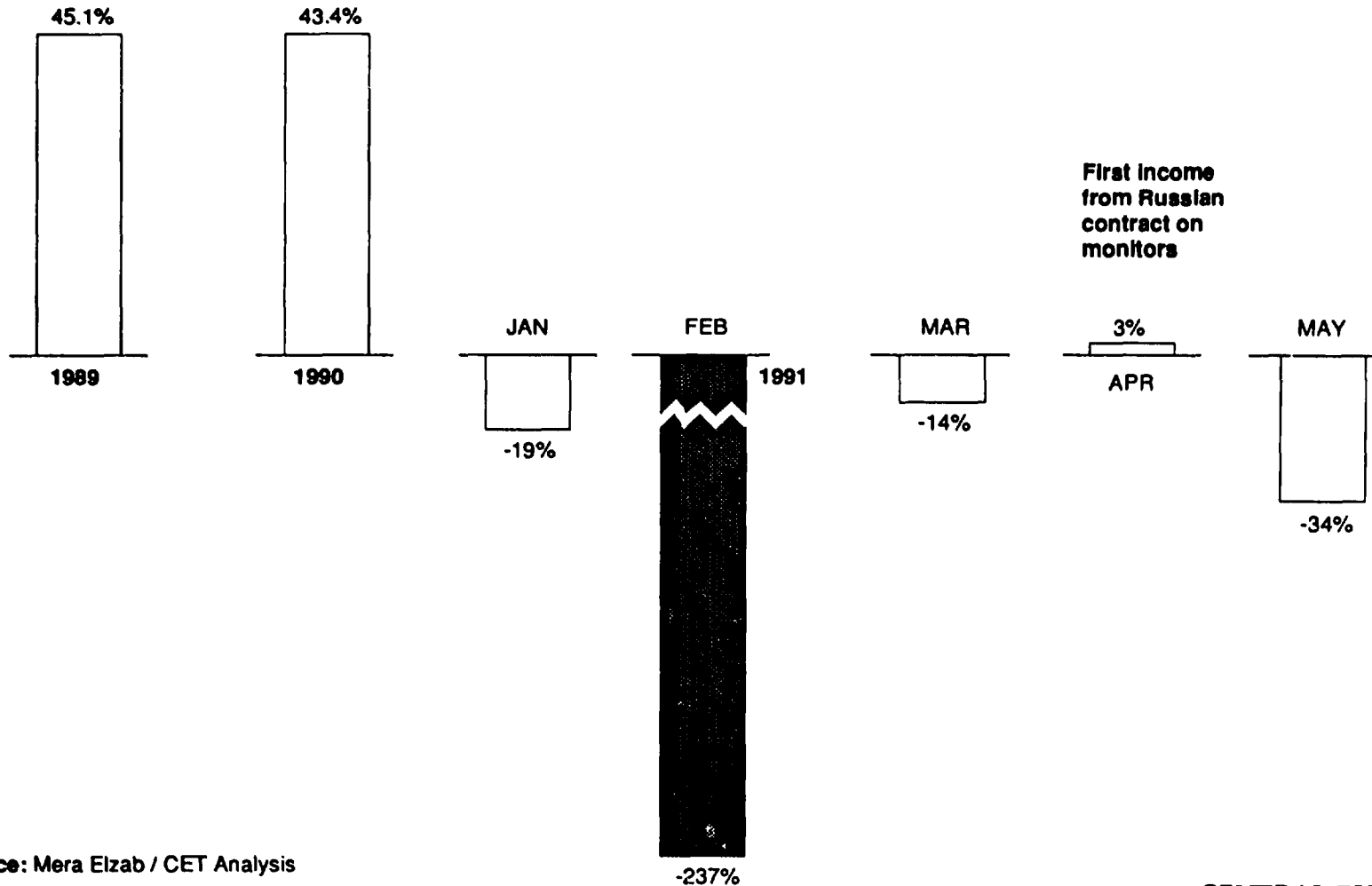
Source: Mera Elzab/ CET Analysis

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Diagnostic... Revenue / Product Mix...

**HIGH RETURN ON SALES STEMMED FROM PROFITABLE EXPORTS TO THE USSR. IN 1991 DUE TO POOR SALES AND HIGH INDIRECT COSTS PROFIT HAS DRAMATICALLY DECREASED. ALTHOUGH SALES HAVE INCREASED IN THE SECOND HALF OF 1991, MERA ELZAB'S OVERALL FINANCIAL POSITION CONTINUES TO DETERIORATE**

**Return on Sales**



Source: Mera Elzab / CET Analysis

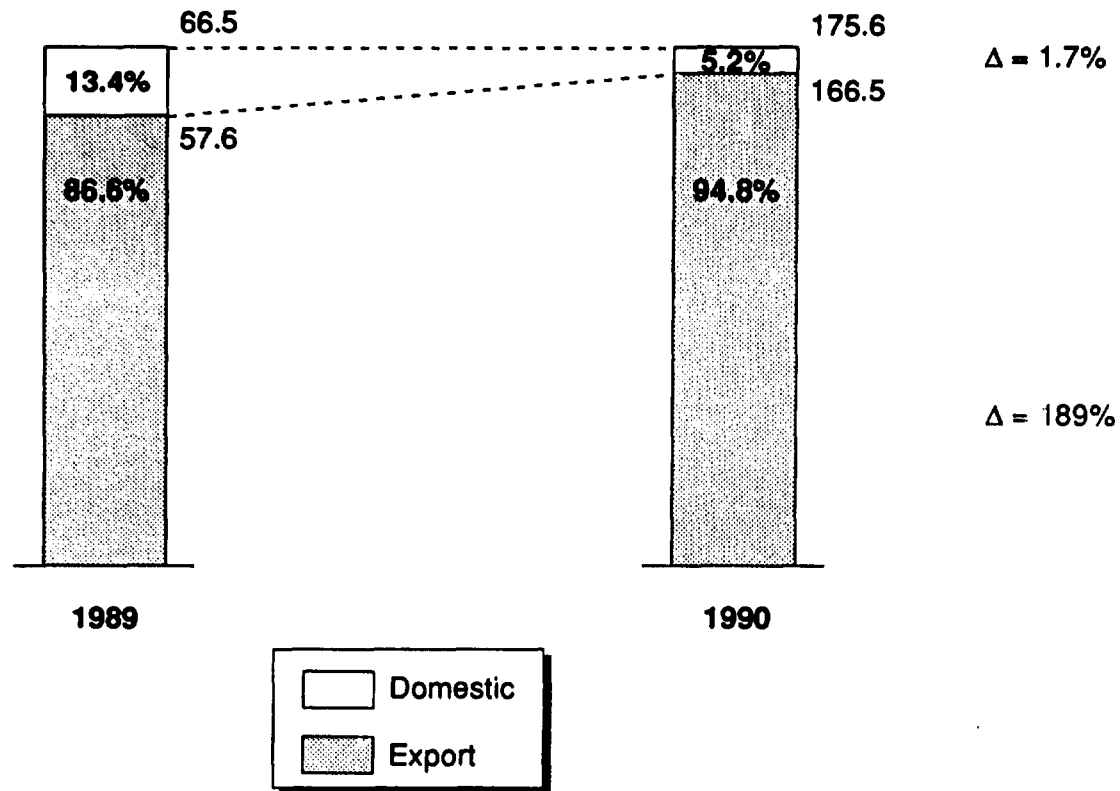
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**DUE TO HIGHER PRICES ASSOCIATED WITH EXPORTS, MERA ELZAB HAD LITTLE INCENTIVE TO EXPLORE DOMESTIC MARKETS**

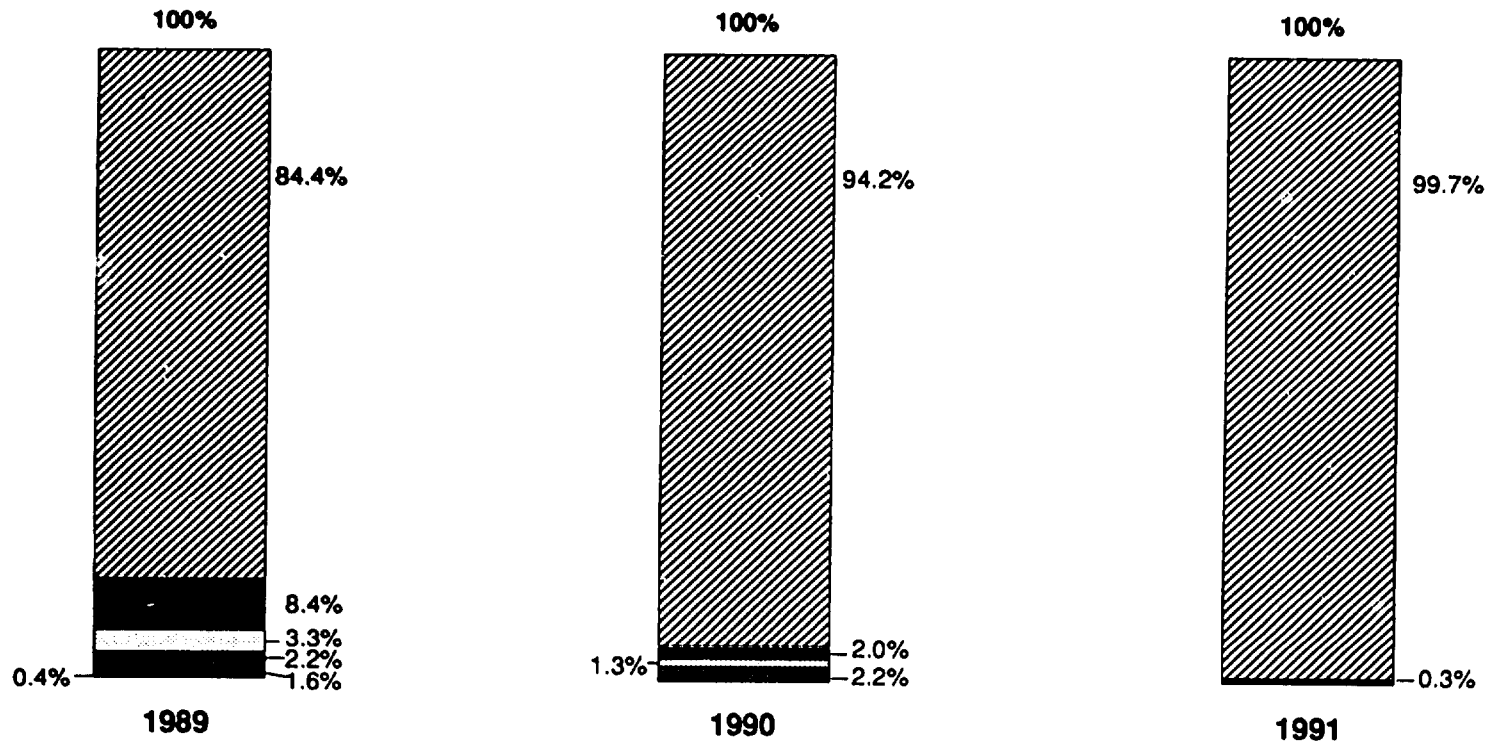
**Mera Elzab Export and Domestic Sales: 1989 - 90**  
(Zl Bn)



Source: Mera Elzab/ CET Analysis

### MERA-ELZAB IS EXCESSIVELY DEPENDENT ON RUSSIAN MARKET

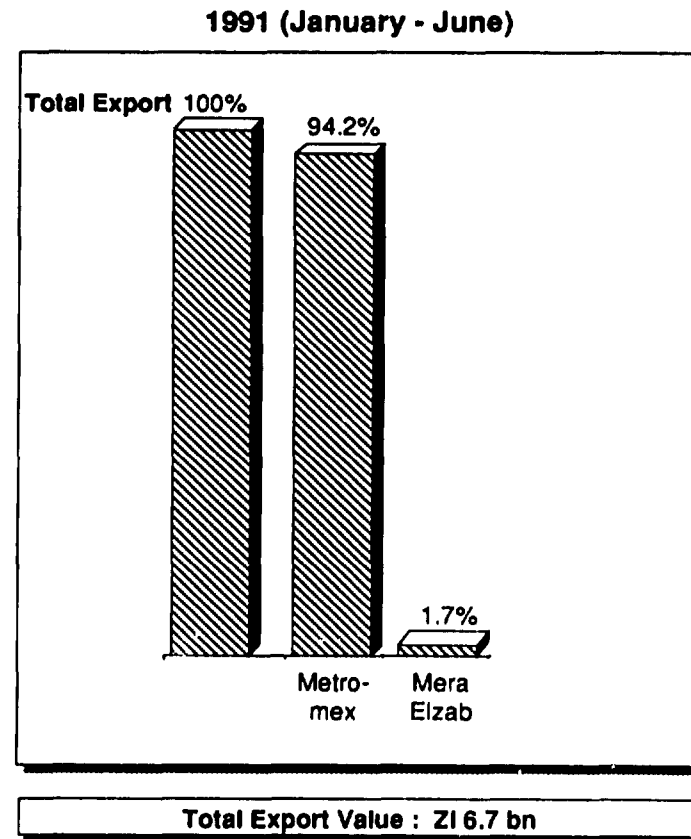
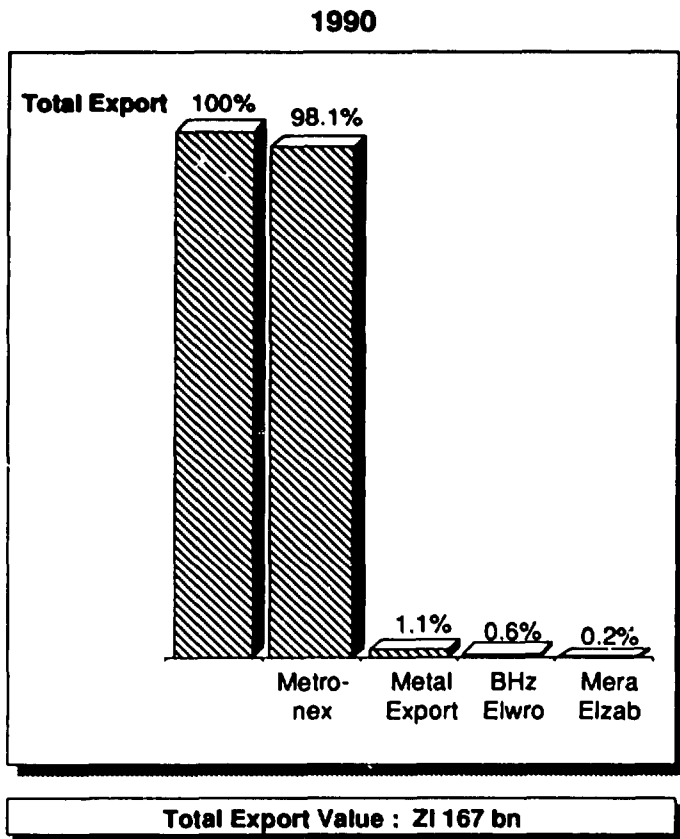
Mera Elzab Export Breakdown



Source: Mera Elzab, CET Analysis

Diagnostic... Revenue / Product Mix...

**MERA ELZAB, DEPENDENT ON FOREIGN TRADE ENTERPRISES FOR EXPORT, IS ATTEMPTING TO INCREASE EXPORTS THROUGH ITS OWN DISTRIBUTION ORGANISATION**



Source: Mera Elzab/ CET Analysis

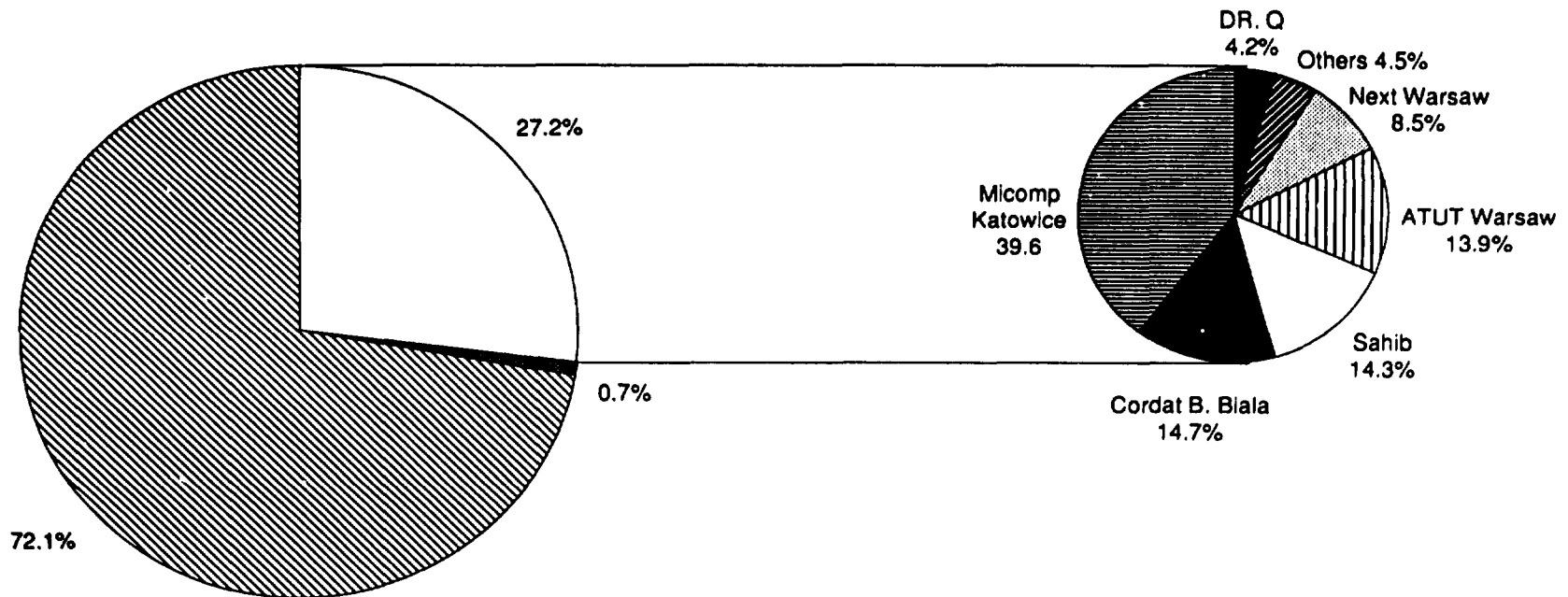
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

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Diagnostic... Revenue / Product Mix...

**MERA ELZAB HAS BEEN DEVELOPING ITS OWN DOMESTIC DISTRIBUTION NETWORK SINCE 1991, TO INCREASE AND CONTROL DOMESTIC SALES**

Customer profile of Mera sales  
between January-May 1991  
(total domestic sales: Zl 6548.7mln)



-  Companies, Factories (direct sales)
-  Mera's Dealers & Representatives
-  Schools

Source: Mera-Elzab/CET Analysis

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Diagnostic... Revenue / Product Mix...

**MERA'S PRODUCTS, ALTHOUGH AT THE LOWER END OF WHOLESALE PRICE RANGE , DO NOT HAVE A SIGNIFICANT PRICE ADVANTAGE ON THE EUROPEAN MARKET**

**Prices of Monitors and Plotters on British Market**

<b>MONITORS</b>	£209 CBP 14" CVGA	£229 CBP 14" SVGA
	£216 Mera Elzab CM 333 VGA	£230 Mera Elzab CM335 SVGA
	£220 AOC CM 333M VGA	£239 Panasonic 14" SVGA
	£225 Philips 3CM 9609 14" CVGA	£239 Samsung 14" SVGA (1024 x 7681)
	£225 Samsung 14" CVGA	£249 Packard Bell SVGA (1024 x 766)
	£240 Packard Bell CVGA 14"	£249 Philips BCM 3209 14" VGA / SVGA
<b>PLOTTERS</b>	£450 Mera Elzab PC Plot - 8	£600 HP 7475

Source: CET Analysis

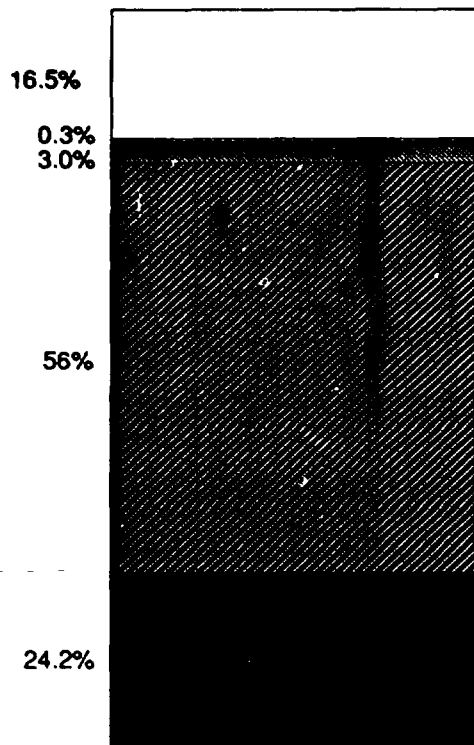
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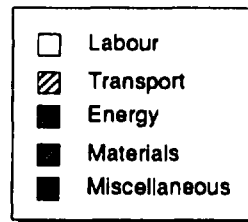
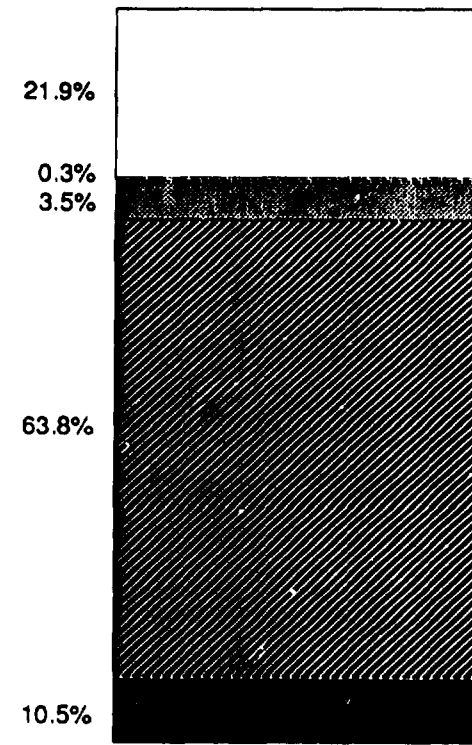
Diagnostic... Costs...

**DUE TO FALLING PRODUCTION IN THE FIRST QUARTER OF 1991, AND THE LACK OF A PROPORTIONAL DROP IN MANPOWER, THE PROPORTIONS OF LABOUR AND ENERGY COSTS HAVE INCREASED SHARPLY**

**Mera-Elzab Cost Breakdown: 1990**



**Mera-Elzab Cost Breakdown: 8 Months 1991**



Source: CET Analysis

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Diagnostic... Costs...

**AS PRODUCTION HAS DECREASED WHILE OVERHEAD AND ENERGY COSTS HAVE INCREASED MERA ELZAB HAS BECOME LESS COMPETITIVE WITH WORLD PRODUCERS**

**Mera-Elzab Zabrze: Costs Incurred by Category**

	1989 ZL 000's	%	1990 ZL 000's	%	August 1991 ZL 000's	%
Depreciation	278,644	0.6	3,651,227	3.3	4,400,000	6.0
Raw Materials	29,440,010	66.0	62,825,062	56.6	43,943,000	60.0
Energy	269,657	0.6	2,892,282	2.6	2,420,395	3.4
Subcontractors	16,586	0.0	30,737	0.0	18,094	0.0
Transport	185,710	0.4	394,314	0.4	237,202	0.3
Repairs	259,545	0.6	475,433	0.4	120,492	0.1
Other material	6,491,062	14.6	14,699,455	13.2	2,967,327	4.0
<b>Production costs (excluding labour)</b>	<b>36,941,196</b>	<b>82.8</b>	<b>84,938,510</b>	<b>76.5</b>	<b>54,106,510</b>	<b>73.8</b>
Wages	3,097,257	7.0	11,094,839	10.0	9,287,265	12.7
Wage Tax	617,600	1.4	2,212,205	2.0	1,782,098	2.4
Social Security	1,072,259	2.4	4,681,265	4.2	3,580,501	4.9
Social Fund	35,738	0.1	180,805	0.2	451,384	0.6
Other Funds	1,200	0.0	4,543	0.0	-	-
Taxes	845,621	1.9	2,422,954	2.2	660,250	0.9
Bank Charges	1,085,601	2.4	674,523	0.6	121,827	0.2
Travel	66,256	0.2	461,390	0.4	700,715	1.0
Other Services	814,376	1.8	4,367,806	3.9	2,574,943	3.5
<b>Other Costs</b>	<b>7,635,908</b>	<b>17.2</b>	<b>26,100,330</b>	<b>23.5</b>	<b>19,158,983</b>	<b>26.2</b>
<b>Total</b>	<b>44,577,104</b>	<b>100.0</b>	<b>111,038,840</b>	<b>100.0</b>	<b>73,265,493</b>	<b>100.0</b>

Source: Mera Elzab/ CET Analysis

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Diagnostic... Costs...

**MERA ELZAB HAS NO REALISTIC COSTING OF PRODUCTS SINCE DIRECT LABOUR REMAINS ALMOST CONSTANT REGARDLESS OF PRODUCTION VOLUME AND COSTS OF SUPPLIES BOUGHT TO RELATE TO ACTUAL EXPENDITURE AND NOT USAGE**

Year/Month	Units Sold	Cost of Materials ZL	Cost of Labour ZL	Total Cost per Unit ZL
1988	30,218	not available	not available	470,464
1989	21,566	not available	not available	1,126,560
1990	32,649	not available	not available	not available
4/90	2,297	388,483	451,244	1,591,431
5/90	1,550	4,635,111	612,567	6,925,359
6/90	2,015	1,979,408	588,365	3,708,418
7/90	2,031	2,090,834	624,000	3,714,105
8/90	1,256	2,016,943	1,316,272	4,123,746
9/90	1,435	3,499,777	1,063,957	5,714,297
10/90	1,812	2,828,698	971,227	4,998,744
11/90	2,774	3,303,900	584,203	4,501,127
12/90	466	539,237	3,434,048	8,342,798
1/91	922	1,773,799	1,733,953	5,638,496
2/91	204	5,794,586	7,451,845	25,740,500
3/91	243	5,343,633	6,398,350	16,143,712

Source: CET Analysis

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Production and Assets... Chapter Presentation...

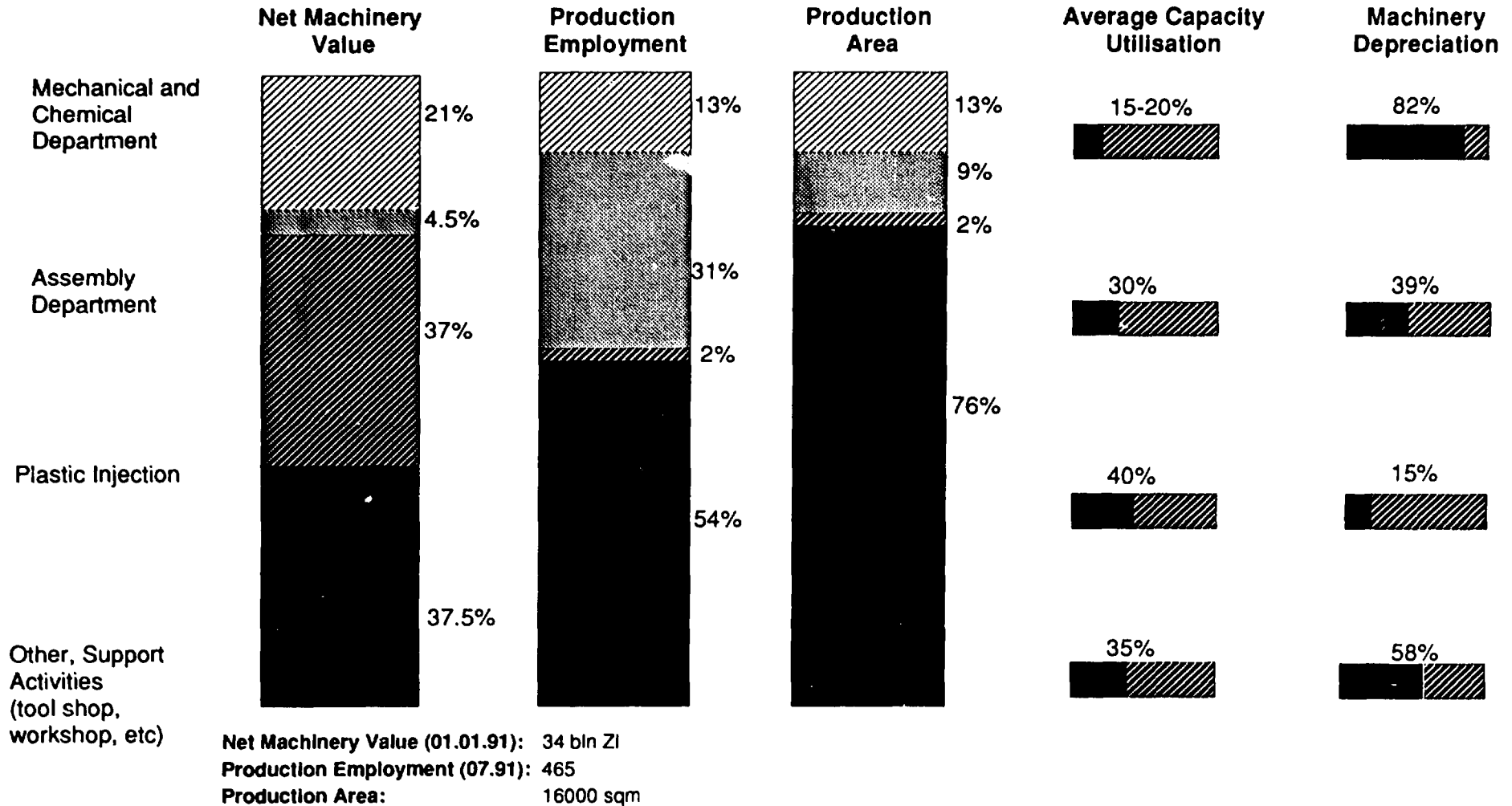
**THE FOLLOWING CHAPTER INCLUDES A BRIEF DESCRIPTION OF MERA ELZAB PRODUCTION AND FIXED ASSET ISSUES**

**The following issues have been addressed:**

- Current production capacity and asset utilisation
- Determination of Mera Elzab's main activity and production capabilities
- Production process issues
- Quality issues
- Analysis of fixed assets

**Source :** CET Analysis

**ACTIVITIES NOT DIRECTLY CONNECTED WITH THE PRODUCTION ACCOUNT FOR A VERY LARGE AMOUNT OF COMPANY'S POTENTIAL**



Source : CET Analysis, Mera Elzab

Diagnostic... Production and Assets...

**MERA ELZAB HAS NEVER REACHED ITS PRODUCTION CAPACITY WHICH IS ESTIMATED TO BE APPROXIMATELY 5000 WORKSTATIONS / MONTH**

**Mera Elzab: Capacity Utilisation 1990/ 1991**

	Maximum Capacity *	Month											
		4/90	5/90	6/90	7/90	8/90	9/90	10/90	11/90	12/90	1/91	2/91	3/91
<b>Production (Units)</b>	5000	2297	1550	2015	2031	1256	1435	1812	2774	465	922	204	234
<b>Capacity Utilisation ( % )</b>		46	31	40	40	25	29	36	55	9	18	4	5

\* Based on 2 1/2 shift operation

Source: CET Analysis/Mera Elzab

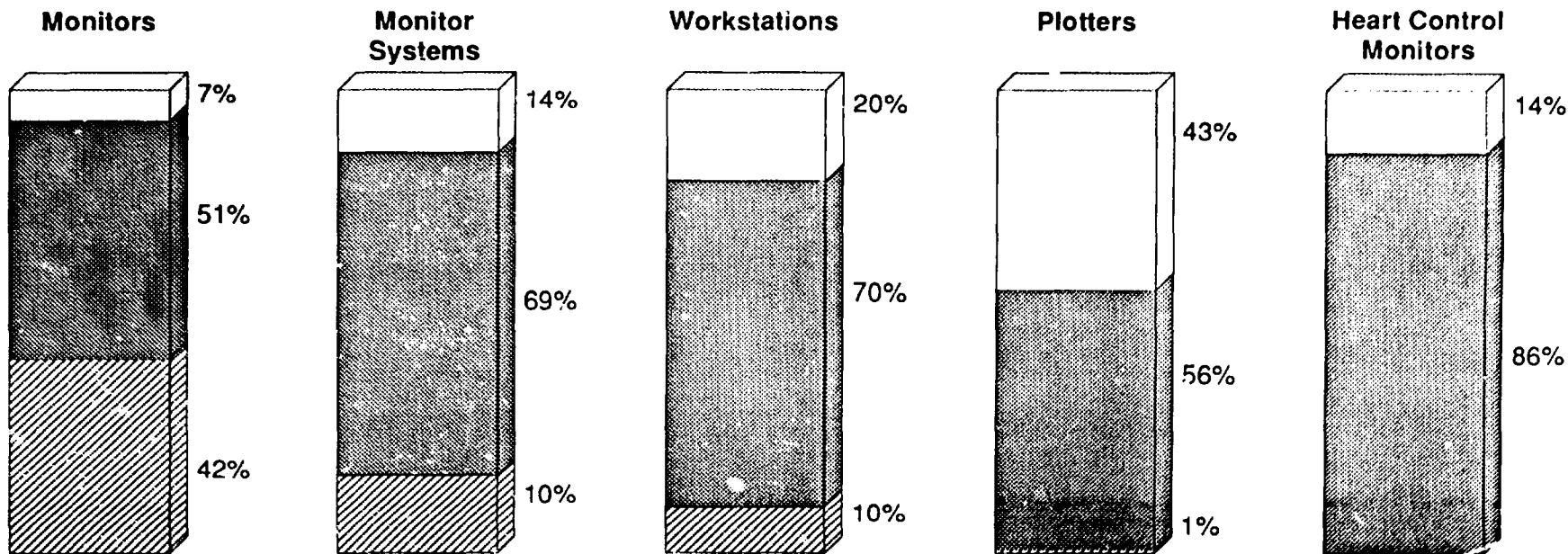
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Diagnostic... Production Assets...

### ASSEMBLY IS MERA ELZAB'S CORE ACTIVITY

% of Total Manufacturing Time (1 unit)



Total  
1990 Sales  
/ units /

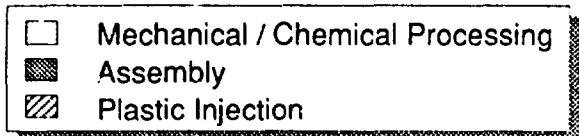
New Product

100

22300

New Product

New Product



New Product

- no sale in 1990

Source: Mera Elzab

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## MERA ELZAB IS WELL ORGANISED TO PERFORM ASSEMBLY MANUFACTURING

Monitor assembly takes place on assembly lines which had been designed and constructed for production of former Mera's products. This is the best option taking into consideration investments and time needed for design and set up of new assembly lines

- Assembly producers, including timing, have been properly designed by Mera Elzab technology specialists
- Assembly lines are synchronised in time

- As the assembly lines are located in different parts of the plant, long time and transportation distances between the lines seem to be the negative side of the present production organisation
- Action necessary to improve this situation includes design and manufacture (or purchase) of mobile containers for parts transportation purposes between the assembly lines. Presently applied means of internal transport do not ensure safe, in terms of causing mechanical defects, transport

Diagnostic...Production and Assets...

**MAIN PROBLEM ASSOCIATED WITH ASSEMBLY OPERATIONS IS LACK OF PRODUCTION PROCEDURES**

This is mainly caused by the fact, that in the past when Mera Elzab had little influence on its suppliers and co-operants, detailed production diagrams, although existing, had almost no application and no significant importance to the production managers.

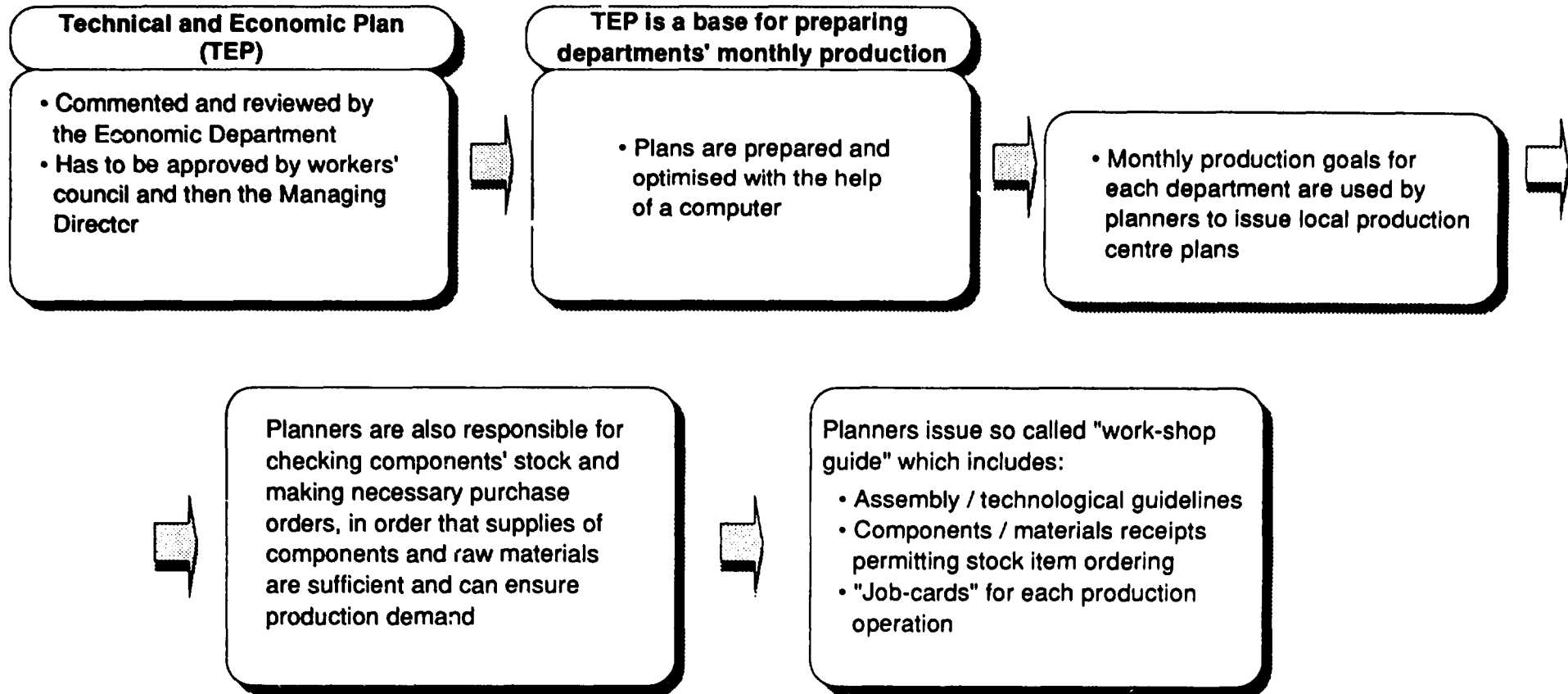
The chore of designing such diagrams can be easily achieved by Mera Elzab's staff, but in the present complex situation of the company this task is of a little importance

Source: Cet Analysis

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Diagnostic... Production and Assets...

**A PRODUCTION PLANNING SYSTEM HAS BEEN CREATED AND IMPLEMENTED IN MERA ELZAB, BUT BECAUSE OF THE LARGE NUMBER OF DOCUMENTS INCLUDED, EMPLOYEES FIND IT DIFFICULT TO USE**



Source: CET Analysis

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Diagnostic... Production and Assets...

**PRODUCTION PLANNING SPECIALISTS, ALTHOUGH VERY EXPERIENCED, ARE PERFORMING ROUTINE ACTIVITIES DESIGNED FOR REGULAR EMPLOYEES. ENERGETIC STEPS HAVE TO BE TAKEN TO CORRECT THIS PROBLEM**

**Mera Elzab's Production Planning System**

<b>Existing Positive Features</b>	<b>Missing Features</b>
<ul style="list-style-type: none"><li>• Production flow control</li><li>• Balancing labour consumption and capacity of machines</li><li>• Balancing and monitoring number of components and materials available on stock</li><li>• Status control of production operations</li><li>• Preparing and issuing operational (monthly) production plans</li></ul>	<ul style="list-style-type: none"><li>• Analysis of deviations from planned figures and minimalisation of their impact on profit and loss account</li><li>• Production facilities utilisation control</li></ul>

Source: CET Analysis

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Diagnostic... Production and Assets...

**TO CREATE A MORE EFFECTIVE PRODUCTION PLANNING SYSTEM, MERA ELZAB SHOULD CONSIDER THE FOLLOWING:**

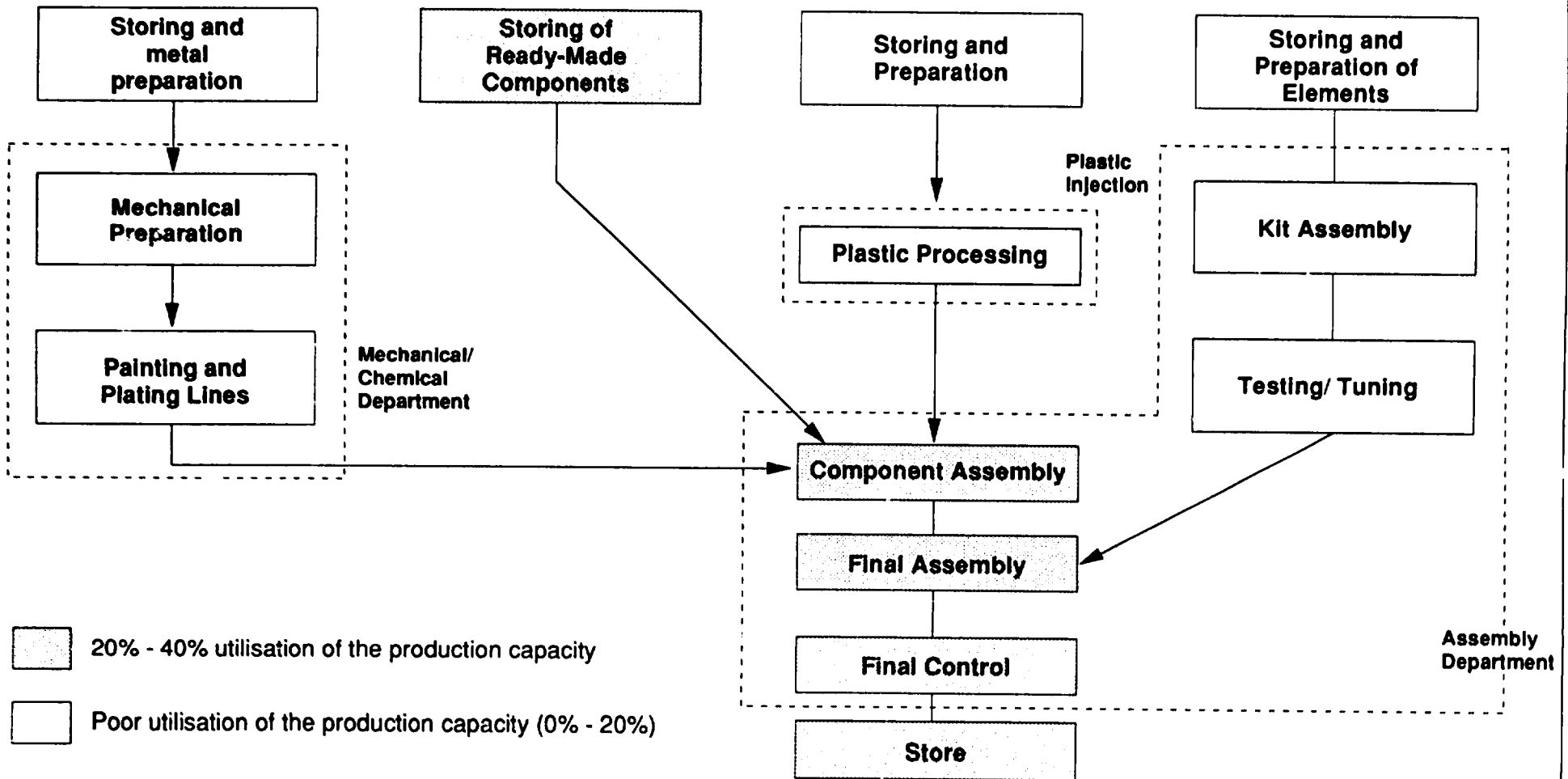
- Creating a new department responsible for:
  - Preparing regulations regarding overall plant management and operations
  - Improvement of production control methods
  - Monitoring reliability and completeness of documents used in the process of production control
- Designing a new universal document for production planning and control from the existing set of documents. Such action is possible with the existing computer system. The new document should take into consideration and include required regulations as well as Mera Elzab's capabilities
- Constantly improving designed document, in order that all features necessary for overall planning, and control and management of the company are included. In the initial stages, these improvements should focus on:
  - Optimal inventory planning and production flow to reduce costs
  - Reduction of deviations from planned figures on the P / L account

Source: CET Analysis

CENTRAL EUROPE TRUST

Diagnostic... Production and Assets...

**CURRENT MONITOR PRODUCTION IS CONCENTRATED IN THE COMPONENT ASSEMBLY FUNCTION. OVERALL PRODUCTION CAPACITY IS VERY POORLY UTILISED (20%) DUE TO LACK OF ORDERS**

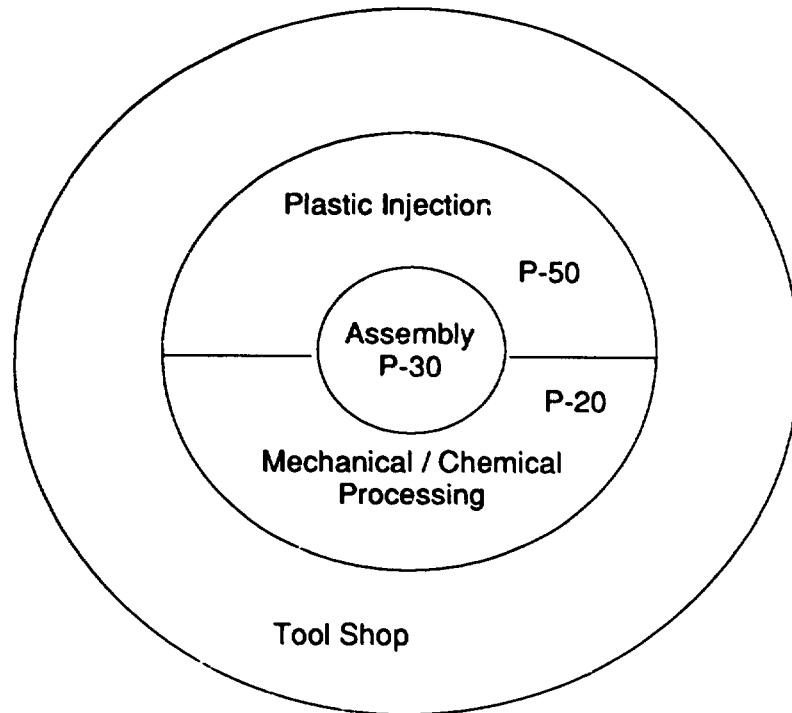


Source: CET Analysis

CENTRAL EUROPE TRUST

Diagnostic... Production and Assets...

**MERA HAS VERY DIVERSE PRODUCTION CAPABILITIES AND IS VERTICALLY INTEGRATED. ALMOST EVERY PART FOR THE CORE ASSEMBLY DEPARTMENT IS CURRENTLY MANUFACTURED IN-HOUSE. THIS STRUCTURE IS NOT FLEXIBLE AND DOES NOT ALLOW USE OF SUBCONTRACTORS.**



Department	Process
P-20	Varnish, galvanic, paint coating; screen printing; pour-in-place expansion machining; cutting; bench work; etc.
P-30	Sub-assembly; assembly; tuning; testing; final assembly
P-50	Plastic injection
Tool Shop	Tool preparation for plastic injection and mechanical / chemical department

Source: CET Analysis/Mera Elzab

CENTRAL EUROPE TRUST

Diagnostic... Production...

**GIVEN THE HIGH LEVEL OF INTEGRATION OF MANUFACTURING AT MERA ELZAB, R&D AND MANUFACTURING EFFORTS ARE SPREAD OVER ACTIVITIES OF VERY DIFFERENT NATURE. MERA ELZAB WILL HAVE TO FOCUS ON SELECTED ACTIVITIES AND DISPOSE OF THE REST**

Low level of integration

**Activities**

**Comment**

- Assembly and Testing  
 - Assembly and Testing

- High Tech products  
 - Power supplies

{

- PCs
- Monitors
- Plotters

- Clean environment required  
 - Large revenue  
 - Low to medium value added  
 - Small space

- Mounting integrated circuits onto printed circuit boards  
 (currently manually performed)

- Low volume,  
 - Small space

- Assembly of cables and harnesses

- Low revenue  
 - Low volume and value added

- Metal manufacturing operations

- Moulding
- Drilling
- Adjusting

• Assembly

} Frames

- Low volume, large space, over 50% of total factory space

- Plastic injection for frame and case production  
 - Painting

- Low volume, noisy and dirty

Repair shop for company cars, buses and lorries

- Low volume, large space

High level of integration

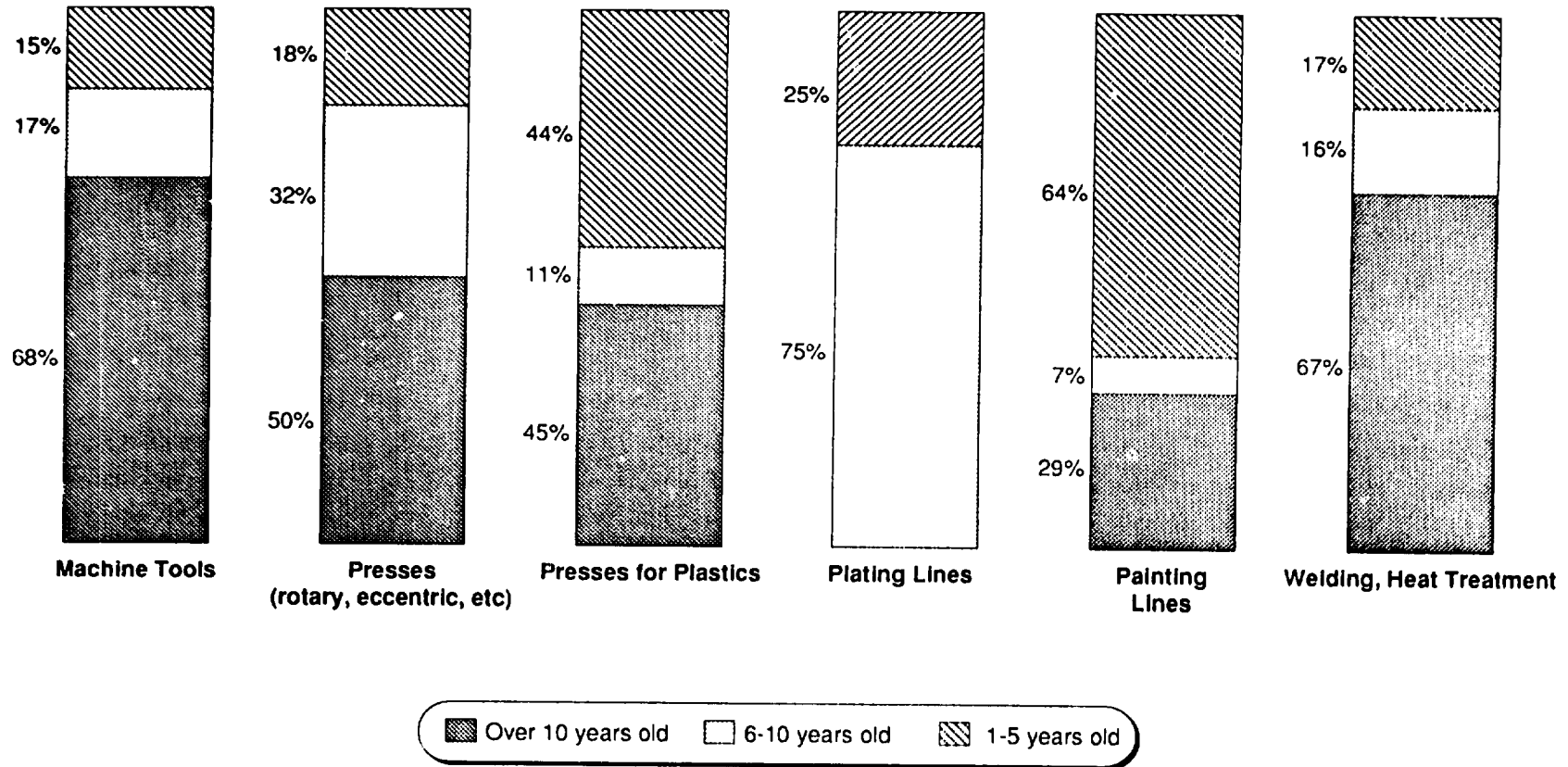
Source: CET Analysis

CENTRAL EUROPE TRUST

Diagnostic... Production and Assets...

## THE PRESENT QUALITY AND AGE OF THE MACHINERY DOES NOT ALLOW MERA ELZAB TO PRODUCE PRODUCTS OF WORLD QUALITY

Machine Types - Age



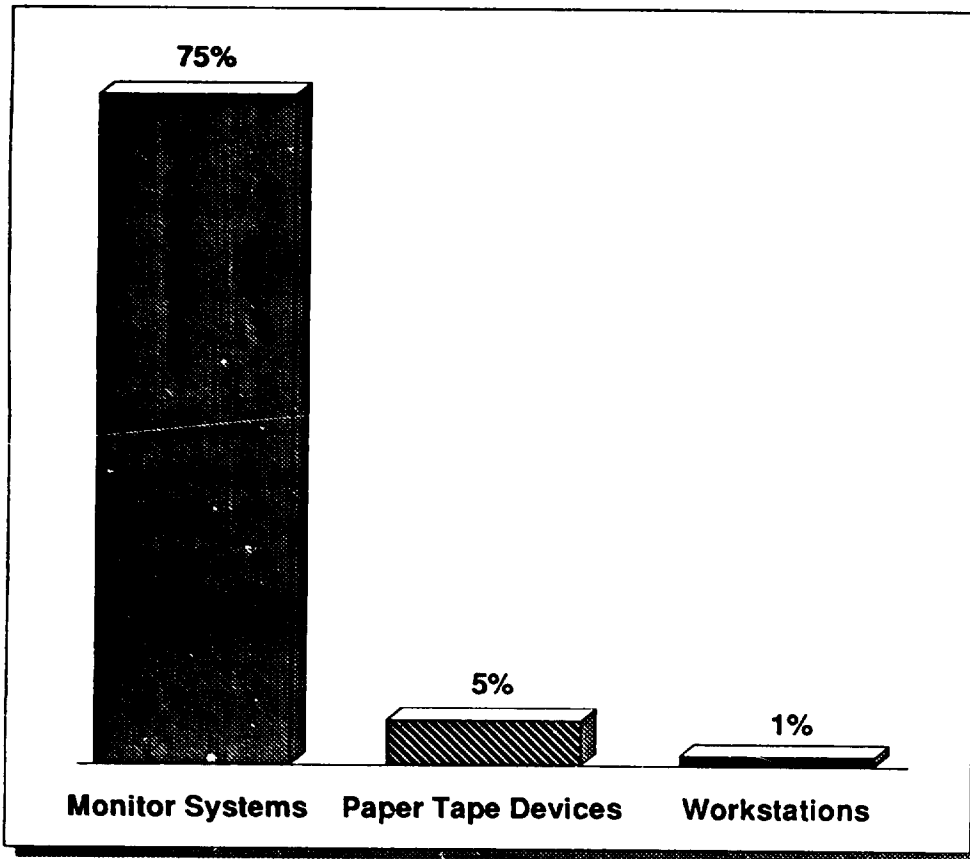
Source: Mera-Elzab, CET Analysis

CENTRAL EUROPE TRUST

MERA/07/91/LA

## CURRENT QUALITY CONTROL PROCEDURES ARE UNSATISFACTORY

**% of Customer Claims in Total Sales**  
(01.08.89 - 17.07.91)



### QUALITY CONTROL ISSUES

- There is no initial testing of elements before assembly
- Quality control during the production process almost does not exist
- Responsibility for quality defects is not looked for

Source: CET Analysis/ Mera Elzab

Diagnostic... Production and Assets...

## **THE PRODUCTION PROCESS DOES NOT PROVIDE FOR GOOD QUALITY AND EFFICIENT MANUFACTURING**

### **The most important issues are:**

- old painting method (compressed air) is very inefficient (approx. 50% varnish, paint utilisation) and does not provide quality coating
- purchased electronic components, coming from different unreliable sources, are not initially tested which increases spoilage and overall cost
- printed boards cleaning procedures are inadequate
- old, flow soldering machine does not allow the manufacture of good quality, printed circuit boards
- simple, old machinery used in the mechanical department requires more man hours and extra storage area for intermediate products

Source: CET Analysis

CENTRAL EUROPE TRUST

MERA/07/91/PR

Diagnostic...Production and Assets...

**ALTHOUGH NEW QUALITY CONTROL REGULATIONS WERE ISSUED ON FEBRUARY 1991 IN MERA ELZAB, THEY HAD NO SIGNIFACNT IMPACT ON THIS AREA OF PLANT OPERATIONS**

CET recommends that Mera Elzab together with specialists from Institute of Quality Control Procedures "Zetom" work on analysing, improving and implemanting quality control procedures in the plant

Source: Cet Analysis

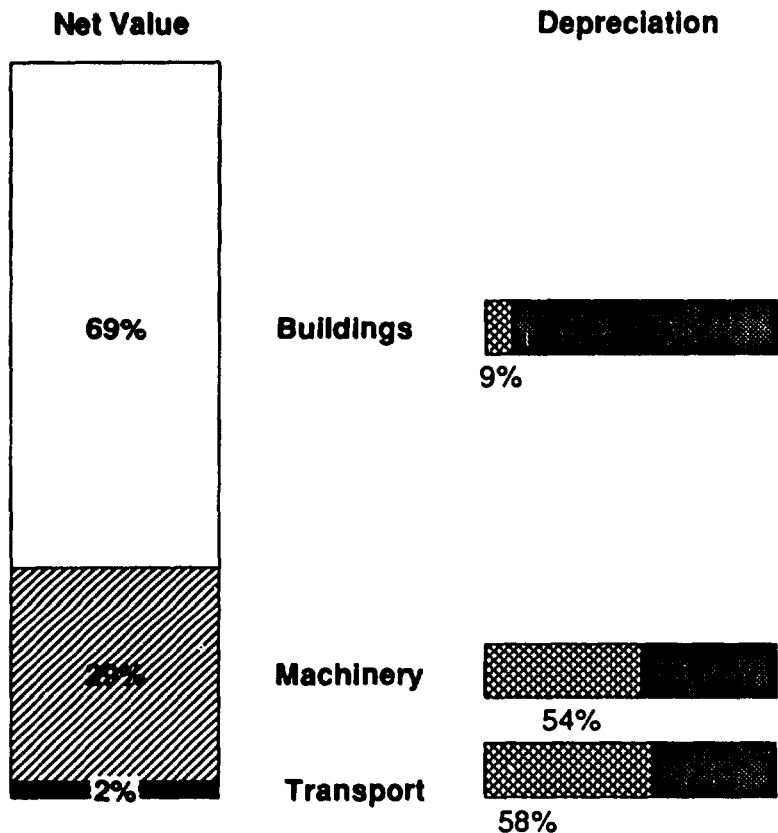
CENTRAL EUROPE TRUST



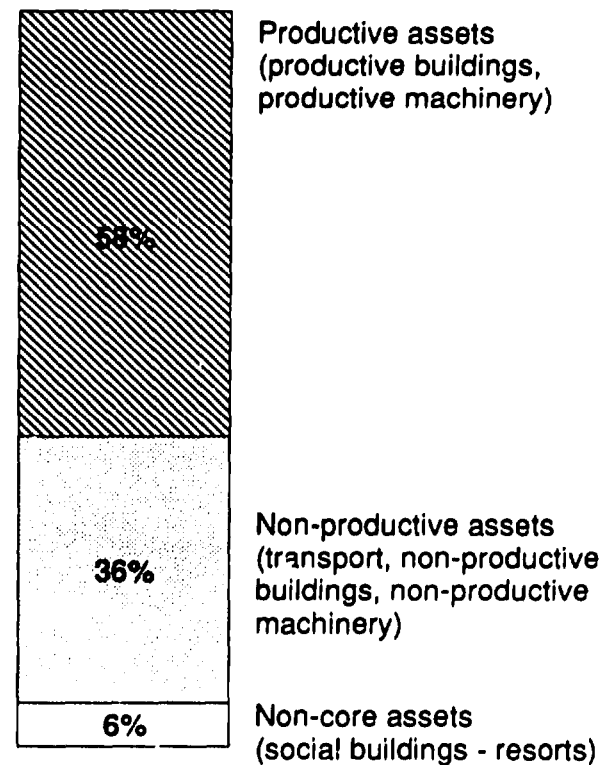
Diagnostic... Production Assets...

**BUILDINGS ACCOUNT FOR THE MAJORITY OF MERA ELZAB'S FIXED ASSETS. MERA HAS A WIDE RANGE OF NON-PRODUCTIVE AND NON-CORE ASSETS. MERA MAY NEED TO SELL THESE ASSETS**

Fixed Assets Structure



Core/ Non-Core Assets



Total net value of fixed assets - ZI 119bn (01.01.91)

Source: CET Analysis/ Mera Elzab

CENTRAL EUROPE TRUST

MERA07/91/PR

Diagnostic... Production and Assets...

**IN ORDER TO IDENTIFY REDUNDANT ASSETS AND PLAN A REALISTIC ASSET DISPOSAL PROGRAMME CET HAS PERFORMED AN ANALYSIS OF ASSETS BY FACTORY DIVISIONS:**

- Plastic Injection Division
- Mechanical Division
- Paint Coating Division
- Chemical Processing
- Tool Shop

Source: CET Analysis/Mera Elzab

CENTRAL EUROPE TRUST

MERA07/91/AC

### PLASTIC INJECTION DIVISION

**ASSETS VALUE (NETTO) 5208 MLN ZL**

This includes: 1 plastic injection machine worth (netto) 4.411 MLN Zt

Investments which are required to ensure the production of plastic elements for monitor covers include:

- Purchasing new injection machines
- Preparing tools (approx. cost = 50000 USD)
- 5 to 6 months for designing and manufacturing the tools

Assuming yearly production of 70000 monitors this investment would break-even after 4 years. As all the plastic elements are delivered by foreign suppliers there is no need to bear these costs. Therefore the following options should be considered:

1

After clearing all legal issues concerning land and buildings belonging to this division, sell the division off

2

First sell the ITALTECH injection machine and the rest of saleable assets, return the building to the old owner, or after resolving the legal issues, sell it off or rent it

3

Rent the ITALTECH injection machine as well as the remaining equipment

4

In the case of creating a joint venture partnership which could properly utilise the plastic injection division capacity, MERA could donate fixed assets as its contribution to the founding capital of the new company

### MECHANICAL DIVISION

Assets value (NETTO): 2393 MLN Zł  
Number of machining devices and plastic forming devices:  
90 of them are fully amortized  
All machine tools are utilised at a low level  
In order to optimize the costs associated with the production of mechanical elements the following options should be considered:

1

Sell all machine tools and subcontract another workshop to produce required elements for Mera Elzab. In this case Mera Elzab would provide its subcontractor with all existing, necessary documentation and tools

2

Create workers' partnership which would lease the equipment from Mera and would produce mechanical elements with a priority for Mera Elzab. The rest of the equipment, in which the new partnership would show no interest, should be sold or given away

3

Contribute necessary equipment into a company or a partnership which would become Mera Elzab's partner for production of mechanical elements

### PAINT SHOP

Assets value (netto) : 94 mln zt

Equipment is relatively new: 64% of machines are less than 5 years old

The monitor manufacturing process does not require paint shop assets. Mera Elzab should consider closing down this division

### CHEMICAL PROCESSING DIVISION

Assets value (netto) : 106 mln

Installed equipment is new. The average age of machines is:

1 - 5 years 75%

6 - 10 years 25%

1

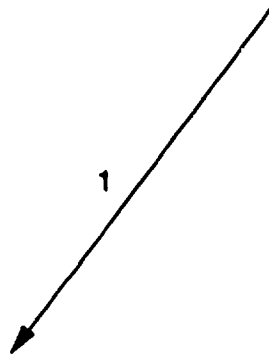
2

In case of selling or closing down the mechanical division, the chemical division will also have to be closed

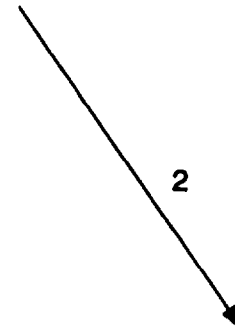
If there is a workers' partnership using the mechanical division, there will be a need to use some of the chemical division facilities. In this case a similar procedure can be applied

## TOOL SHOP

This is the best equipped and the strongest division of MERA ELZAB. In order to preserve its present manufacturing power and skilled personnel, the following actions should be taken:

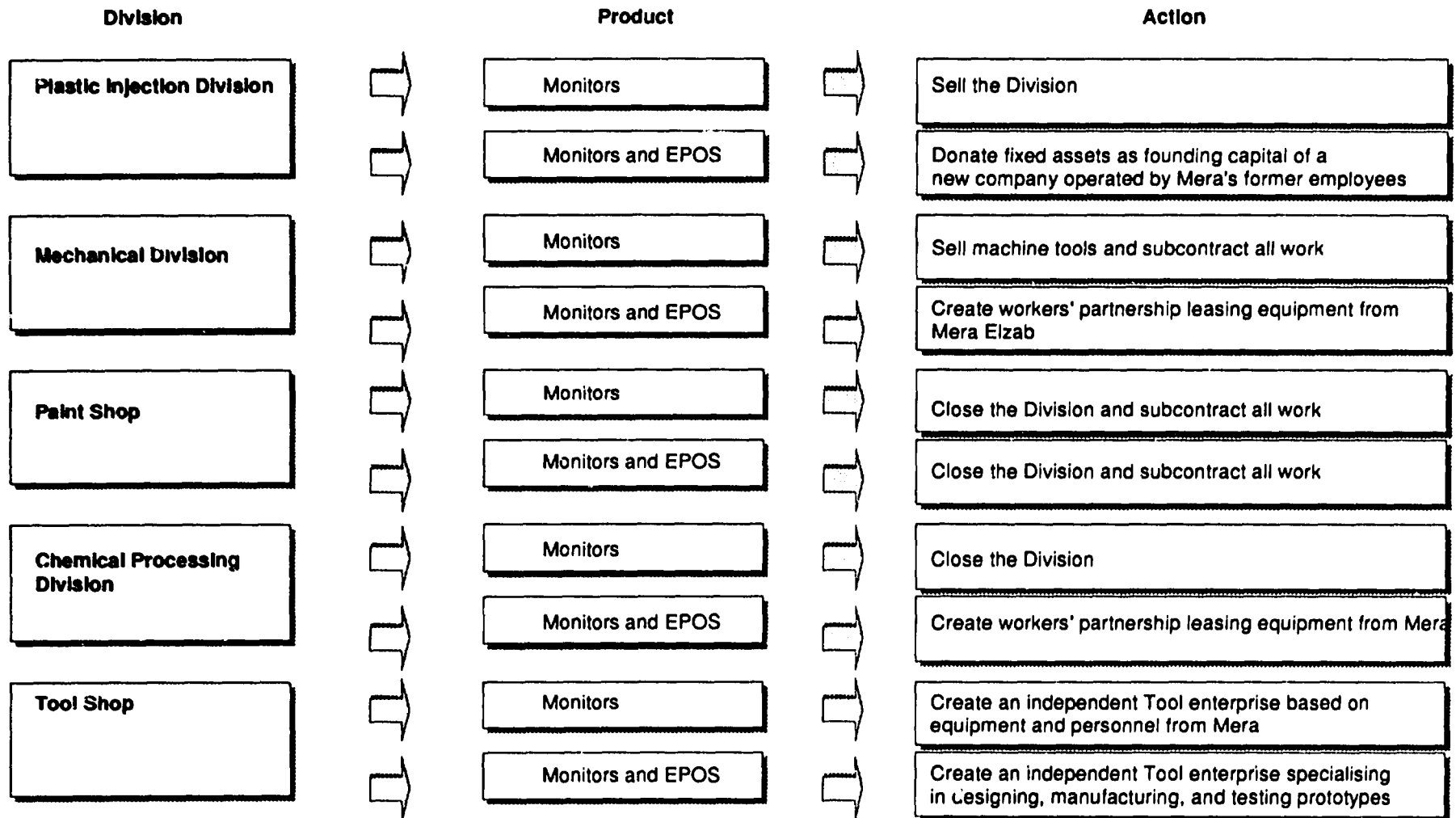


Create an independent Tool Factory based on equipment and people from MERA ELZAB's Tool Shop. This factory should also develop a strong sales department. Its task would be selling factory's services above the level required by MERA's orders



Based on machines from tool shop and mechanical shop create a new factory specialised in designing, manufacturing and testing prototypes and small series products. This company would also need some people from the technological, financial and sales departments to ensure successful operation

**MERA ELZAB SHOULD CONSIDER BREAKING UP THE ENTERPRISE ACCORDING TO THE TYPE OF PRODUCT TO BE MANUFACTURED**



Source: CET Analysis

**PRODUCTION AND ASSETS ANALYSIS LEADS TO THE FOLLOWING CONCLUSIONS:**

- The total production capacity is very poorly utilised (<20%)
- Mera Elzab is not using its assets efficiently. Production support activities account for a very large amount of company potential
- The current production process cannot provide a world standard competitive product
- Mera production capabilities are too diverse which leads to higher costs and a lack of production flexibility
- Mera Elzab has too many non-core and non-productive assets



Diagnostic... Management and Organisation...

**MERA FACES AN IMPORTANT PROBLEM OF OVERMANNING, ESPECIALLY WHERE NON-PRODUCTION EMPLOYEES ARE CONCERNED**

**Mera Elzab Employment Structure**

	<b>Technical</b>	<b>Production</b>	<b>Commercial</b>	<b>Finance</b>	<b>Administration</b>	<b>Total</b>
<b>Production Direct</b>	-	207	25	-	-	232
<b>Production Indirect</b>	159	58	29	-	71	317
<b>Staff</b>	8	24	7	38	34	110
<b>Supervisors/ Managers</b>	9	21	5	3	5	43
<b>Directors</b>	-	1	1	1	1	4
<b>Total</b>	176	311	67	42	110	706

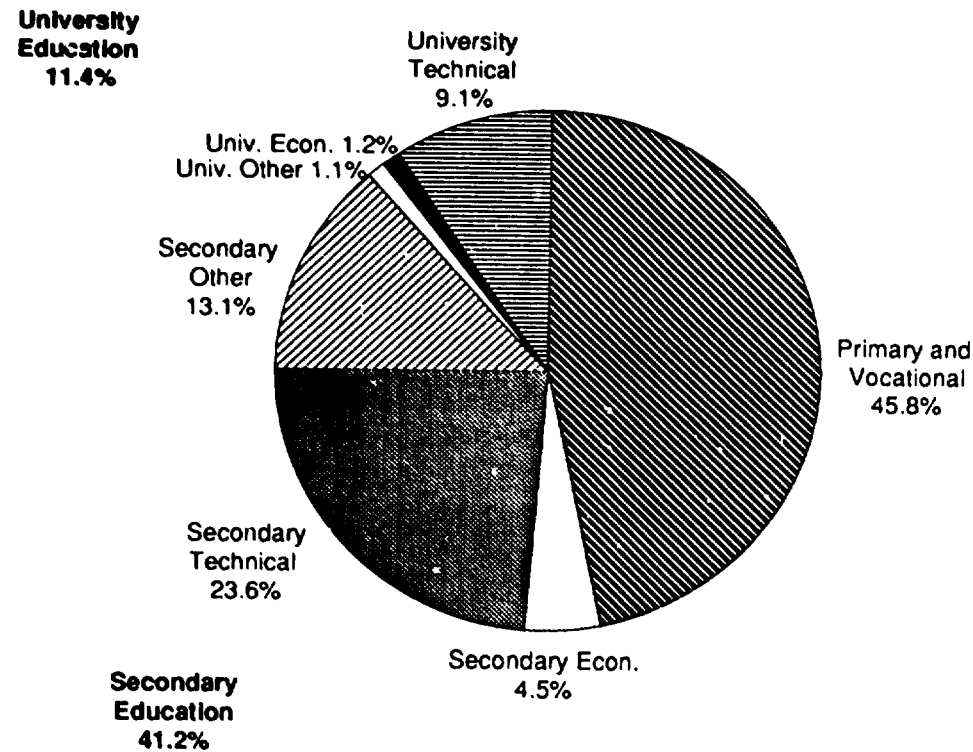
As of September 30th 1991

Source: Mera-Elzab

CENTRAL EUROPE TRUST

## MERA ELZAB HAS A WELL EDUCATED AND YOUNG WORKFORCE

**Mera Employees Education Structure**

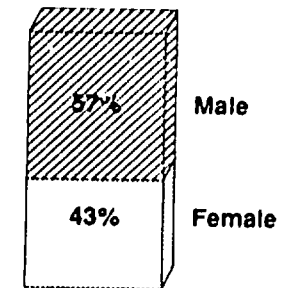


**Mera Age Structure**

Age	%
20 - 30	30.2%
30 - 40	33.9%
40 - 50	23.3%
50+	12.6%

**Mera Employees' Gender**

Total 706 (September 1991)



Source: Mera-Elzab/ CET Analysis

Diagnostic... Management and Organisation...

**ONLY 10% OF MERA'S TECHNICAL STAFF ARE EMPLOYED IN DIRECT PRODUCTION. MERA ELZAB SHOULD RECONSIDER ITS ALLOCATION OF ENGINEERING RESOURCES**

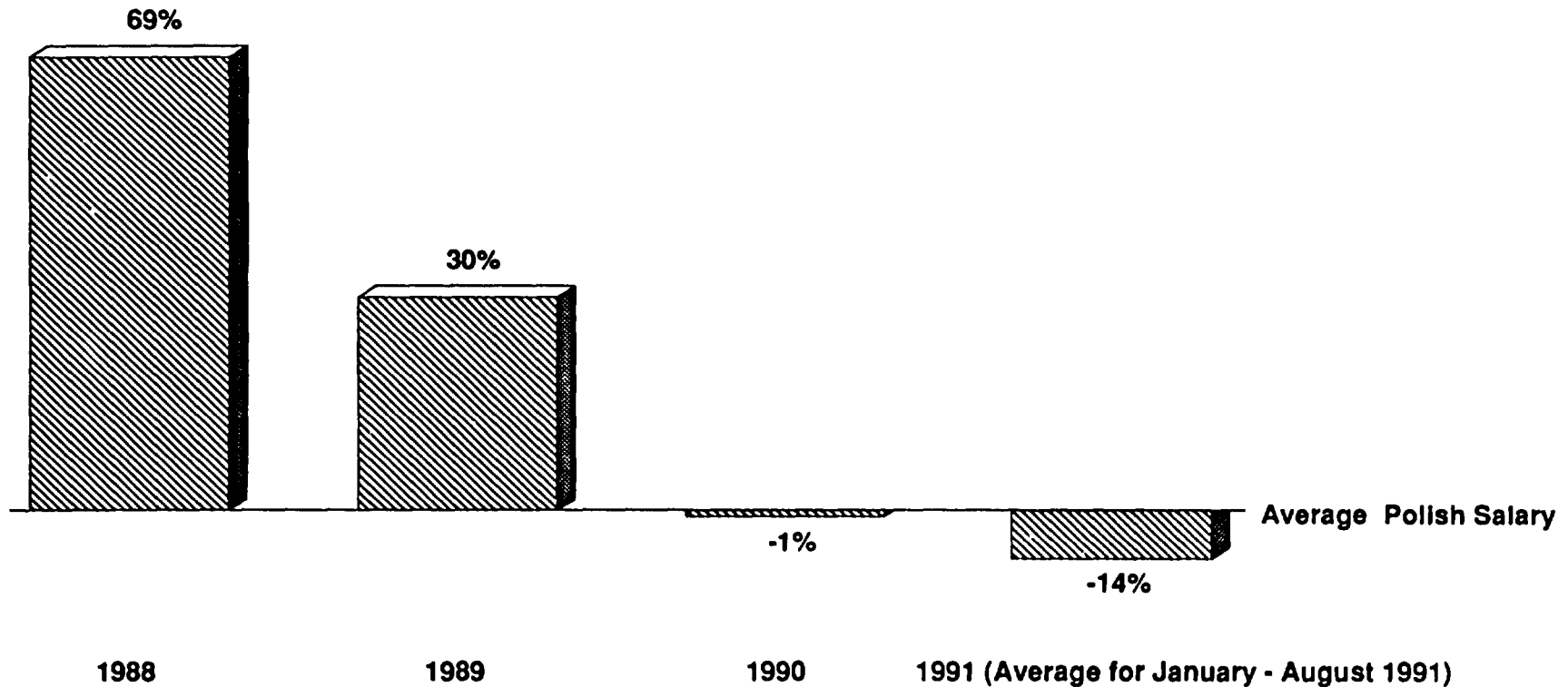
	Total	Managers	Direct Production	Support
Electronic Engineers	24	4	5	15
Mechancial Engineers	26	7	4	15
Process Engineers	22	1	-	21
Software Engineers	13	4	-	9
Other	5	1	-	4
<b>Total Engineers</b>	<b>90</b>	<b>17</b>	<b>9</b>	<b>64</b>

Source: Mera-Elzab

CENTRAL EUROPE TRUST

Diagnostic... Management and Organisation...

**MERA ELZAB'S WAGES HAVE BEEN CONSTANTLY FALLING COMPARED TO THE POLISH AVERAGE SALARY ENDING UP BELOW THE NATIONAL AVERAGE IN 1991. INCENTIVES SHOULD BE CONSIDERED TO RETAIN PRODUCTIVE WORKERS**



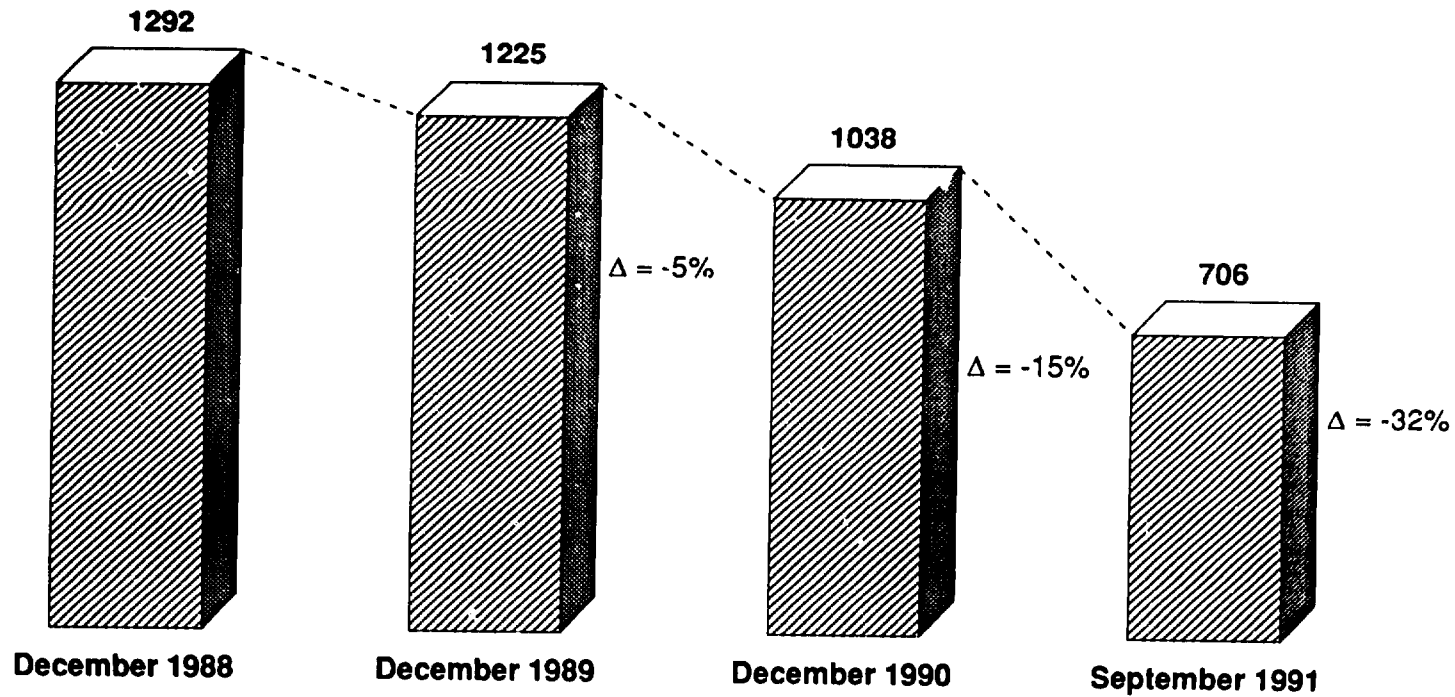
Source: Mera-Elzab, CET Analysis

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MERA/07/91/PR

**DESPITE RECENT LAY-OFFS, MERA STILL HAS LARGE FIXED COSTS ASSOCIATED WITH HIGH STAFFING LEVELS**

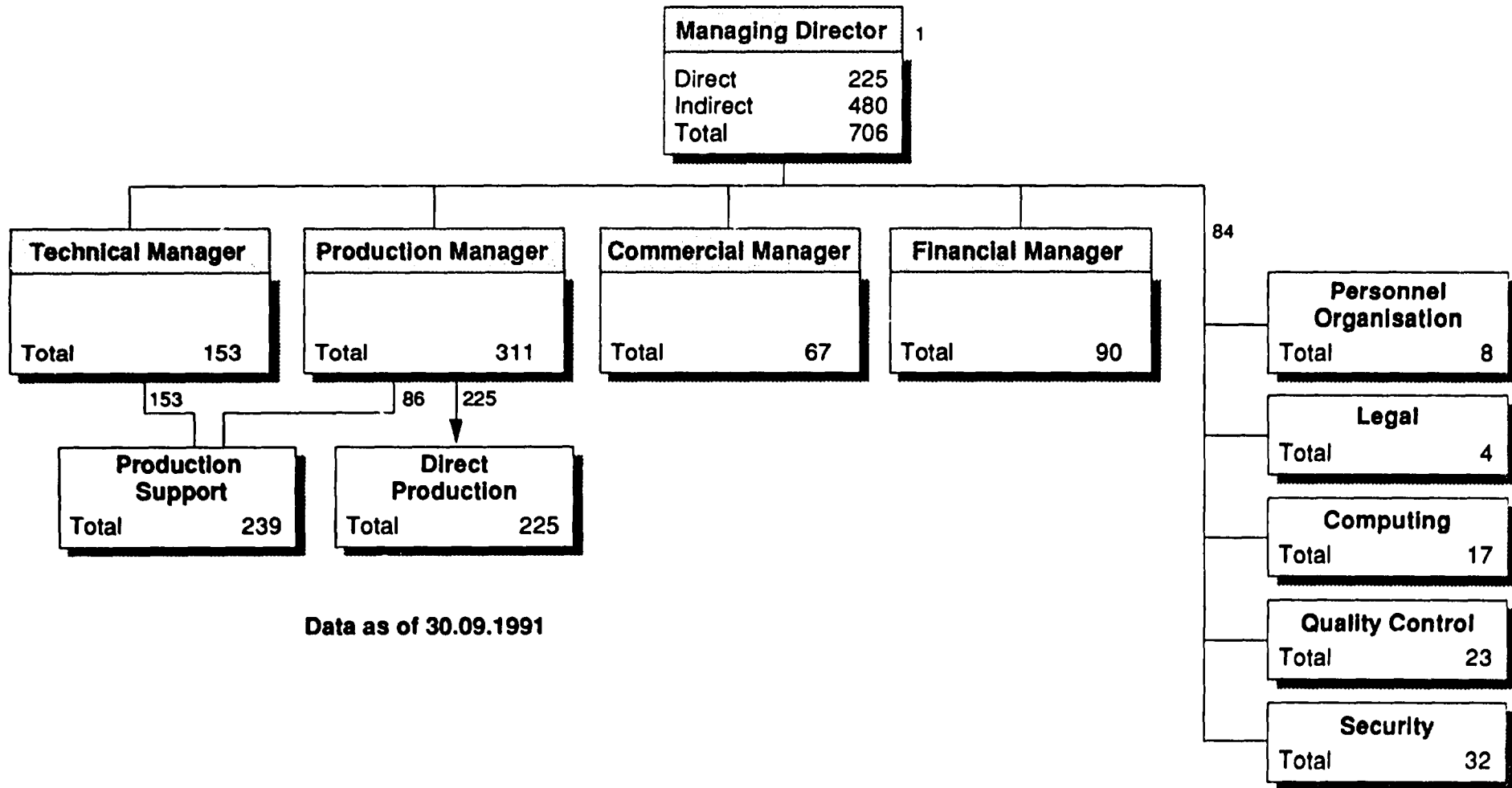
Mera Elzab Total Employees: 1988-91



Source: Mera-Elzab, CET Analysis

Diagnostic... Management and Organisation...

**IN MERA ELZAB, THE RATIO OF DIRECT PRODUCTION PERSONNEL TO INDIRECT EMPLOYEES IS 1 TO 2**



Data as of 30.09.1991

Source: Mera-Elzab/ CET Analysis

CENTRAL EUROPE TRUST

MERA07/91/PR

**MERA'S MAJOR PROBLEM IS LOW PRODUCTION WHICH UNDERMINES DISCIPLINE**

**Workforce Issues**

- Best employees are quitting their jobs in Mera because of low wages
- Lack of significant conflicts
- Low production and lack of work undermines discipline
- Good relationship between management and trade unions
- No drinking problem

**MERA ELZAB'S CASHFLOW SITUATION IS RAPIDLY DETERIORATING****Balance Sheet**

<b>Assets</b>	<b>31.12.89</b> ZI Min	<b>%</b>	<b>31.12.90</b> ZI Min	<b>%</b>	<b>1991 (YTD)</b> ZI Min	<b>%</b>
<b>Fixed Assets</b>						
• Tangible	4,685	11%	118,798	60%	104,390	61%
• Intangible	14	-	12	-	34	-
• Capital Investments	1,883	5%	5,729	4%	8,134	5%
• Shares in Other Companies	707	2%	732	-	732	-
<b>Total Fixed Assets</b>	<b>7,289</b>	<b>18%</b>	<b>125,271</b>	<b>64%</b>	<b>113,290</b>	<b>66%</b>
<b>Current Assets</b>						
• Inventories	10,988	27%	31,714	16%	37,065	22%
• Accounts receivable	19,967	49%	19,041	10%	15,392	9%
• Cash	1,983	5%	20,502	10%	3,358	2%
• Prepaid Expenses	517	1%	377	-	1,732	1%
<b>Total Current Assets</b>	<b>33,455</b>	<b>82%</b>	<b>71,634</b>	<b>36%</b>	<b>57,547</b>	<b>34%</b>
<b>Total Assets</b>	<b>40,744</b>	<b>100%</b>	<b>196,905</b>	<b>100%</b>	<b>170,837</b>	<b>100%</b>

<b>Liabilities</b>	<b>31.12.89</b> ZI Min	<b>%</b>	<b>31.12.90</b> ZI Min	<b>%</b>	<b>1991 (YTD)</b> ZI Min	<b>%</b>
<b>Short-term Liabilities</b>						
• Accounts Payable	5,346		5,894		1,658	
• Other Payable	3,052		2,749		1,499	
• Short-term Debt	1,500		-		-	
• Deferred Income	157		1,366		814	
• Reserves	1		79		79	
<b>Total Liabilities</b>	<b>10,056</b>	<b>25%</b>	<b>10,088</b>	<b>5%</b>	<b>4,050</b>	<b>2%</b>

<b>Equity</b>	<b>31.12.89</b> ZI Min	<b>%</b>	<b>31.12.90</b> ZI Min	<b>%</b>	<b>1991 (YTD)</b> ZI Min	<b>%</b>
<b>Capital</b>						
• Enterprise and Founded Funds	18,313		160,517		173,515	
• Retained Earnings	12,375		26,310		-	
• 1991 Loss	-		-		(6,728)	
<b>Total Equity</b>	<b>30,688</b>	<b>75%</b>	<b>186,817</b>	<b>95%</b>	<b>166,787</b>	<b>98%</b>
<b>Total</b>	<b>40,744</b>	<b>100%</b>	<b>196,905</b>	<b>100%</b>	<b>170,837</b>	<b>100%</b>

Source: CET Analysis

CENTRAL EUROPE TRUST

MERA/07/91/PR



## Income Statement

	1989 ZI Min	1990 ZI Min	1991 (August YTD) ZL Min
Sales	66,569	175,661	45,770
Turnover Sales	(59)	(126)	(100)
<b>Net Sales</b>	<b>66,510</b>	<b>175,535</b>	<b>45,670</b>
Cost of Sales	(39,983)	(98,033)	(51,661)
Gross Margin	26,527	77,502	(5,991)
Less Depreciation	(279)	(3,651)	(4,400)
Operating Income	26,248	73,851	(10,391)
Less Interest Paid	(1,087)	(675)	(252)
Other Income (loss)	118	2,275	2819
Income Before Tax	25,279	75,451	(7,824)
State Dividend	(304)	(889)	(710)
Income Tax	(1,985)	(30,014)	-
Excessive Wages Tax	(2,870)	(550)	-
Income After Tax	20,120	43,958	(8,534)

Source: Mera Elzab / CET Analysis

CENTRAL EUROPE TRUST

MERA/07/91/PR

Diagnostic... Financial/ Accounting Analysis...

**MERA ELZAB HAS BEEN UNSUCCESSFUL IN CONTROLLING RESOURCES AND HAS TIED-UP INCREASING AMOUNT OF WORKING CAPITAL IN STOCK AND TRADE DEBTORS, WHILE NOT RECEIVING EXTENDED CREDIT FROM ITS SUPPLIERS**

**Mera-Elzab Zabrze  
Ratio Analysis**

<b>Name</b>	<b>1989</b>	<b>1990</b>	<b>31.05.91</b>
Liquidity (incl. Social Funds)	2.5:1	4.4:1	3.4:1
Acid Test Liquidity	1.7:1	2.4:1	1.2:1
Days Trade Debtors	109	40	149
Days Creditors	41	26	7
Stock Turnover-Days	60	66	359
Profit Margin	38%	43%	(40%)
Turnover/ Assets	163%	89%	21%

Source: Cet Analysis

CENTRAL EUROPE TRUST

Diagnostic... Financial / Accounting Analysis...

**MERA ELZAB HAS NOT ATTEMPTED TO NEGOTIATE BETTER PAYMENT CYCLE IN RESPECT TO DEBTORS AND CREDITORS, AND IS CURRENTLY DEPENDENT ON THE GOODWILL OF METRONEX, ITS FOREIGN TRADE ORGANISATION**

**Mera-Elzab Zabrze  
Age Analysis of Debtors and Creditors as of September 1991**

(mln 26)

	<b>Trade Debtors</b>	<b>%</b>	<b>Trade Creditors</b>
<b>30 days</b>	16,976	79%	18,457
<b>60 days</b>	603	2.8%	166
<b>90 days</b>	17	0.0%	—
<b>90+</b>	3,876	18.2%	15
<b>TOTAL</b>	21,472	100%	18,638

Source: CET Analysis

CENTRAL EUROPE TRUST

MERA/07/91/PR

**THE EXISTING COST ACCOUNTING SYSTEM IS INADEQUATE. PROPER COSTING OF PRODUCTS DOES NOT EXIST. COST AND VARIANCES ARE NOT ANALYSED**

<b>Cost Allocation</b>	<ul style="list-style-type: none"><li>• Not performed by final product but by assembly</li><li>• Allocation needs to be more product specific and detailed by manufacturing step</li><li>• Productive overhead allocation is based on direct labour, following prior regulatory rule. Detailed analysis is required to select the most adequate allocation method</li></ul>
<b>Variance Tracking Analysis</b>	<ul style="list-style-type: none"><li>• Variance tracking and recording is limited to two factors</li><li>• Variances are not further detailed and analysed</li><li>• Causes for variance are not established and follow-up actions taken</li><li>• Material price and usage variances are allocated based on standard material costs rather than to the specific products to which they belong</li></ul>
<b>Inventory Valuation</b>	<ul style="list-style-type: none"><li>• Inventory is not properly valued. Product cost expenses are not correctly stated<ul style="list-style-type: none"><li>- Inventory is valued on a full absorption basis (excluding general overheads)</li><li>- Inventory is to be valued at the lower of actual costs or net realisable value. Material costs are not valued at actual costs but at standard costs</li><li>- All variances are currently expensed monthly as period costs. None are inventoried</li><li>- Underactivity costs are inventoried</li></ul></li></ul>

Source: CET Analysis

Diagnostic... Financial / Accounting Analysis...

**NEW REGULATIONS ARE FORCING MERA-ELZAB TO MAKE CHANGES IN ITS ACCOUNTING POLICES AND SYSTEMS. FOLLOWING CHANGES WILL HAVE TO BE IMPLEMENTED IN THE NEAR FUTURE**

- **New applicable accounting principles**
  - Matching of expenses and revenues
  - Prudence
  - Valuation of assets at historical cost modified by revaluation
  
- **New accounting policies**
  - Inventories are to be valued at the lower of actual costs or net realisable value
  
  - Accounts receivable - recording of bad debt reserve
  
  - Fixed assets - redefining depreciation methods and asset life
  
  - Prepare a profit and loss statement to EEC format
  
- **Systems changes**
  - Cost Accounting
    - Cost allocation
    - Variance tracking and allocation
    - Inventory valuation method
  
  - Fixed Asset Register

Source: CET Analysis

CENTRAL EUROPE TRUST

MERA/07/61/PR

Diagnostic... Financial / Accounting Analysis... MIS...

**INFORMATION IS AVAILABLE TO MANAGEMENT IN A PIECE-MEAL FASHION. A SYSTEMATIC AND SUMMARISED REPORTING SYSTEM IS TO BE DESIGNED AND IMPLEMENTED IN ACCORDANCE WITH MERA-ELZAB STRATEGY AND KEY SUCCESS FACTORS**

Marketing	Customer Information	Financial Management	Management Accounting	Production	Productivity Measurement
<ul style="list-style-type: none"> <li>• Market conditions and trends</li> <li>• Competition - Intelligence</li> <li>• Marketing and Sales efforts</li> <li>• Prospects and proposals</li> <li>• Pricing and contracts</li> <li>• Sales and budgeting</li> </ul>	<ul style="list-style-type: none"> <li>• Customer Profile</li> <li>• Business history</li> <li>• Customer needs and requirements</li> <li>• Sales</li> <li>• Backlog and ordering</li> <li>• Quality (Before and After sales)</li> </ul>	<ul style="list-style-type: none"> <li>• See Section Financial / Accounting Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• See Section Financial / Accounting Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated computerised system covering</li> <li>- Production planning</li> <li>- Ordering and receiving</li> <li>- Inventory control</li> </ul>	<ul style="list-style-type: none"> <li>- Real terms in addition to financial measurement</li> <li>- Benchmark comparisons</li> <li>- Setting of objectives - Communication of result</li> </ul>

**Organisational Issues : Successful implementation of new system will depend upon the following factors**

- Adequation of information systems to key success factors:
- Attribution of management responsibility
- Communications and Education - connective action
  - reporting
- Information flow -> timing, quality and relevancy

Source: CET Analysis

CENTRAL EUROPE TRUST

MERA/07/91/PR

Diagnostic... Recommendations...

**MERA ELZAB'S PRICING STRATEGY SHOULD BE BASED ON MARKET ACCEPTANCE LEVEL WHILE ENSURING MINIMUM PROFITABILITY AS DECIDED BY MANAGEMENT. FOLLOWING ISSUES SHOULD BE ADDRESSED BY MANAGEMENT:**

<b>MARKET</b>	<ul style="list-style-type: none"><li>- Ability to know market prices and customers response to Mera-Elzab prices</li><li>- Communication of pricing policy to marketing and sales personnel</li></ul>
<b>FINANCIAL MANAGEMENT</b>	<ul style="list-style-type: none"><li>- Prices have to cover all direct costs as well as overhead costs. Careful financial planning is necessary to ensure all costs are recovered and minimum profitability is reached</li><li>- Costs are to be allocated by product. Detailed analysis of costs and variances will allow to identify key cost drivers</li></ul>

Source: CET Analysis

CENTRAL EUROPE TRUST

Diagnostic... Recommendations...

## **MERA ELZAB MUST FOCUS ON THE FOLLOWING ISSUES TO BECOME COMPETITIVE**

### **Marketing - oriented company**

- The company's direction should be inspired by consumers and market needs:
  - Mera Elzab should follow market trends and needs
  - become aware of competitors' movements
  - adopt its product offerings to new emerging needs
  
- Mera Elzab should strengthen its marketing function by implementing:
  - systematic data collection and analysis of market trends and competition
  - visit international computer exhibition
  - provide international exposure for marketing staff and management
  - integrate customers/ market's needs in Mera Elzab's management, service and production

### **Organisation and Management**

- Mera Elzab's Management should implement a system of management by objective and define precise "responsibility centers"
- Managers should be responsible for achieving exposed targets and budgets
- Key success factors and strategic variables should be analysed and taken into account when establishing management control system
- Cost centres and profit centres (if applicable) are to be established based on organisational structure and business activities

Source: CET Analysis



Diagnostic... Recommendations...

## **MERA ELZAB MUST URGENTLY ADDRESS THE RISING CASH FLOW PROBLEM**

- Improve cash flow situation
  - renegotiate current payment procedure with Metronex to speed up payments and reduce uncertainty over future payment
  - enhance cash flow projection
  - implement cost reduction programme to reduce fixed costs
  - increase inventory turnover and reduce existing inventories including selling of old inventories at discounted prices
  - consider selling financial stakes (currently in 8 companies)
  
- Prepare for worsened cash flow situation
  - improve communications with financial partners
  - investigate availability of external financing
  - investigate the possibility of obtaining financing backed by Mera Elzab's assets
  - consider selling of non-core assets, especially real estate such as recreational facilities and buildings used for non-core activities

## **MERA ELZAB MUST IMPROVE ITS ACCOUNTING AND MIS PROCEDURES**

- Implement simplified cost accounting system to properly cost products by performing the following:
  - allocate productive overhead costs to final product by manufacturing phase
  - allocation method is to be selected after careful analysis of key cost discriminating factors
  - recompute total production costs for each product category
  - identify key cost drivers
  - compare manufacturing costs for each manufacturing process with prices from external suppliers
  
- Pricing:
  - establish target prices for existing product lines using the following methods:
    - full absorption
    - marginal costing
    - variable
    - established break-even point
  
  - compare the above figures with current market prices.
  - determine if current product offerings can be price competitive. Take appropriate actions as necessary
  
- Enhance current information systems to include commercial business cycles
  
- Prioritisation of part management
  - categorise parts and sub-assemblies by monetary value of inventory turnover. (high/medium/low)
  - implement specific inventory control programme for each part category. Prioritise management attention on high and medium monetary value stock items. Ensure all critical parts receive proper attention

Diagnostic... Recommendations...

**MERA ELZAB MUST REDUCE ITS COST BY FOCUSING ON THE FOLLOWING ISSUES:**

Key objectives are to:

- reduce costs
- lower break-even point by reducing fixed costs
- improve productivity by benchmark programme/ costs comparisons

Consider further manpower reduction:

- direct labour if volume remains low
- indirect labour and administrative staff

Evaluate possibilities of subcontracting activities currently performed within Mera Elzab:

- Locate potential outside suppliers and compare with internal costs
- For non-strategic activities, investigate possibility of divestiture or spin-off to current employees
- For strategic activities, implement efficiency improvement programme to match outside suppliers' costs. Implement frequent benchmark review programme with local and European suppliers

Introduce quality improvement programme:

- Place emphasis on quality improvement rather than on quality control

## CONTENTS

- I EXECUTIVE SUMMARY AND RECOMMENDATIONS
- II COMPUTER MARKETS
- III MERA ELZAB DIAGNOSTIC
- IV STRATEGIC BUSINESS PLAN
- V APPENDIX

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Introduction...

**MERA ELZAB MUST, IN THE SHORT TERM, BUILD AN ASSEMBLY BUSINESS USING ITS PRIVILEGED ACCESS TO THE POLISH MARKET**

- Mera did not build a business strategy sufficiently quickly to obtain more revenue/capital financing. The company concentrated instead on keeping its staff busy with small projects
  
- This chapter contains the following proposals, elaborated by CET:
  - Summary of key strategic issues
  - Corporate strategy
  - Corporate organisation
  - Strategic business plan
  
- The chapter was prepared as the result of work with the Mera management
  - During training sessions
  - During individual interviews

Strategic Issues...

**MERA ELZAB MUST FIND ACCESS TO PRODUCTS AND BUILD A NATIONAL DISTRIBUTION NETWORK**

- To find a foreign partner that will provide production and technology to be sold in Poland
- To cooperate with Polish manufacturers and distributors of computer equipment in order to develop and find new sales opportunities in Poland and abroad
- To reduce company overheads by spinning off unnecessary parts of the plant
- To plan and implement new organisational structure driven by sales and market requirements
- To acquire financial investment for EPOS venture

Corporate Strategy...

**MERA ELZAB MUST CONCENTRATE ON BUILDING ITS OWN DISTRIBUTION NETWORK AND BETTER MANAGE ASSEMBLY COSTS BETTER**

DISTRIBUTION

- Mera Elzab should strengthen its competitive standing through partnership agreements and joint ventures with Polish and Western marketing and sales organisations
- Mera Elzab should also actively participate in world fairs, exhibiting and promoting its products on global markets

PRODUCT

- Mera has to adapt cost structure and identify the employment and asset base necessary to run the business
- Mera has to implement quality control procedures in line with world class manufacturing standards
- Mera Elzab should also consider subcontracting production when outside suppliers are more cost effective than internal production
- It is essential for Mera Elzab to reduce levels of manufacturing integration
- If Mera Elzab intends to export some of its products, it should also concentrate on improvements in product design. This can be achieved either by comparison of Mera's products with the similar western goods or by getting direct criticism and remarks from Mera Elzab's customers

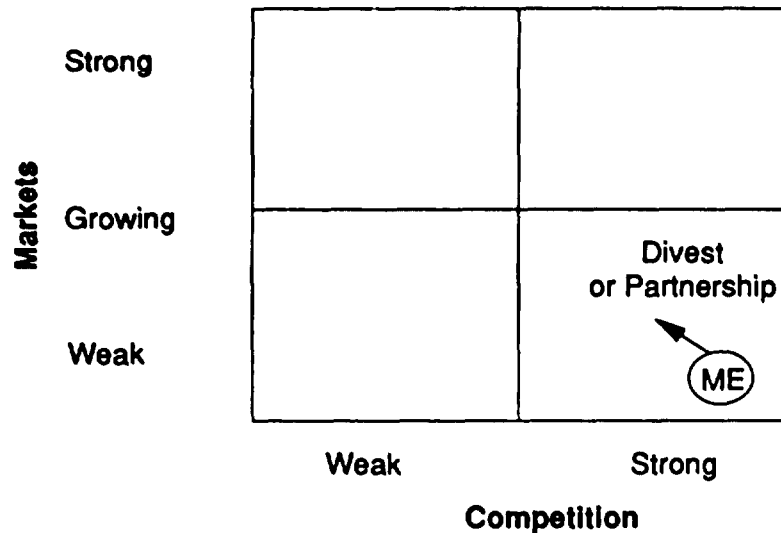
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Corporate Strategy...

**MERA ELZAB'S COMPETITIVE STANDING IN THE COMPUTER ASSEMBLY BUSINESS IS VERY WEAK - IT HAS NO SUSTAINABLE COMPETITIVE ADVANTAGE. MERA ELZAB'S MANAGEMENT SHOULD WORK TOWARDS REACHING A PARTNERSHIP AGREEMENT WITH ITS MAIN SUPPLIER, AOC**

- Mera Elzab
- has lost control of its markets
  - Mera has limited marketing/sales experience
  - has plenty of manufacturing capacity and personnel available



Mera Elzab cannot survive alone and must choose from various options



- Strategic Directions
- Joint Ventures with Marketing/Sales Organisations
- Partnership with suppliers
- Increase value added
- Adapt cost structure and asset base to business needs

Source: CET Analysis

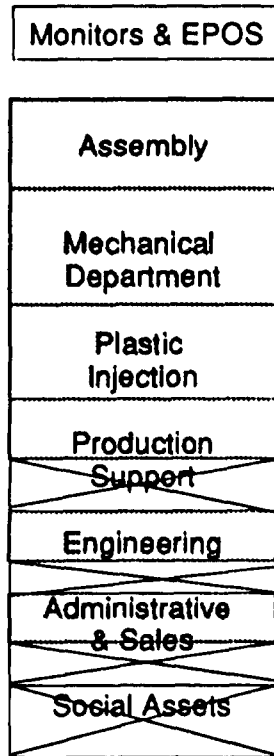
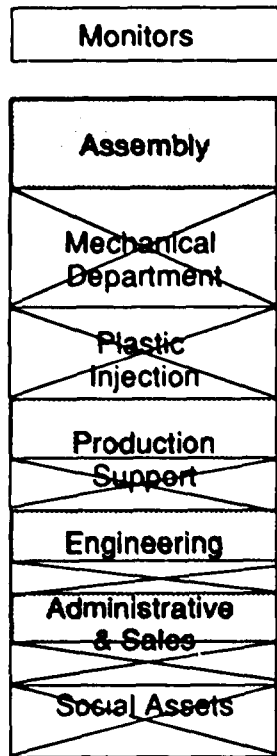
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Corporate Organisation...

**DEPENDING ON THE PRODUCT MIX CHOSEN, MERA ELZAB SHOULD TAKE APPROPRIATE ACTIONS TO ENSURE COSTS ARE MANAGED AND ASSETS ARE UTILISED**

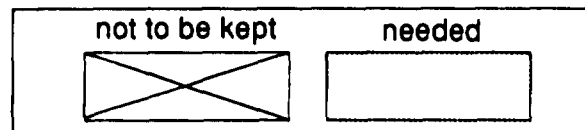


Should Mera Elzab make monitors only, it would no longer need its mechanical department, plastic injection and most of its production support and engineering staff

Should Mera Elzab make monitors and EPOS equipment, the mechanical and plastic injection departments would be required but would not be working at full capacity until EPOS is produced in high volumes

Careful consideration should be given to ensure cheapest material sources are selected and compared with internal prices where appropriate

NB: Not to scale



Source: CET Analysis

**Business Issues...**

**MERA MUST BE PRIMARILY CONCERNED WITH ITS SALES, NOT PRODUCTION**

**CONTRACTS USSR**

Finance	Business Risks	Issues	Actions
<ul style="list-style-type: none"> <li>• 1991 contract for delivery of 48,000 EGA monitors has helped Mera Elzab to stay afloat</li> <li>• Payments are received on a timely basis</li> <li>• A similar 1992 contract, while not sufficient, will help absorb some of the fixed costs</li> <li>• Break even point is around 190,000 units per year, assuming no other production and that the current cost structure is maintained</li> </ul>	<ul style="list-style-type: none"> <li>• Monitors delivered to the USSR are EGA's no longer in demand in other countries</li> <li>• Should there be a problem with the customer, Mera Elzab will be stuck with stocks it could not easily sell</li> <li>• Having the USSR customer move to VGA and SVGA monitors, competition will become stronger although the business risk mentioned earlier will not exist</li> </ul>	<ul style="list-style-type: none"> <li>• Low value added assembly</li> <li>• Low profitability</li> <li>• No contract over final customer as commercial contacts are made through Metronex</li> <li>• New political situation in the USSR will lead to more customers. However financing will become a bigger problem. Recession in many republics may delay new orders</li> </ul>	<ul style="list-style-type: none"> <li>• Renegotiate lower commissions and charges with Metronex as volume increases</li> <li>• Renegotiate lower prices for parts with AOC</li> <li>• Establish direct contact with customers in the USSR</li> </ul>

Source: CET Analysis

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Strategic Busines Plan... Summary of Actions...

**THE FOLLOWING ACTIONS SHOULD BE CONSIDERED BY MANAGEMENT TO RESTRUCTURE THE COMPANY**

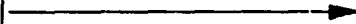
	<b>Actions</b>	<b>Objectives</b>	<b>Drawbacks</b>	<b>Who</b>	<b>When</b>	<b>Specific Items</b>
<b>Social Assets</b>	Sell	Raise cashflow	Not significant	General manager of social affairs Council of workers	As soon as possible	<ul style="list-style-type: none"> <li>• Apartment buildings</li> <li>• Recreational facilities and resorts</li> </ul>
<b>Productive Assets</b>	Sell or dispose of	<ul style="list-style-type: none"> <li>• Raise cashflow</li> <li>• Save on running costs</li> <li>• Improve manufacturing focus</li> <li>• Increase space availability</li> </ul>	<ul style="list-style-type: none"> <li>• Limit technology base</li> </ul>	General manager Director of production	<ul style="list-style-type: none"> <li>• As soon as possible</li> <li>• After having decided upon product mix</li> </ul>	To be considered: <ul style="list-style-type: none"> <li>• Mechanical plastic injection and car repair operations</li> <li>• Tool room</li> </ul>
<ul style="list-style-type: none"> <li>• Engineering and production support staff</li> <li>• Administrative personnel</li> </ul>	Reduce  Reduce	<ul style="list-style-type: none"> <li>• Lower operating costs and break-even point</li> <li>• Adjust employment structure to business requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Limit technological base</li> <li>• May impair move to higher value added or R &amp; D based production</li> </ul>	General Manger Directors of production, technology and human resources	<ul style="list-style-type: none"> <li>• After having decided on product mix and integration level</li> </ul>	To be considered personnel in <ul style="list-style-type: none"> <li>• Design</li> <li>• Toolroom</li> <li>• Production planning</li> <li>• Mechanical workshop</li> <li>• Transport</li> <li>• Plastic injection</li> <li>• Stores</li> <li>• Finance</li> </ul>

SOURCE: CET Analysis

CENTRAL EUROPE TRUST

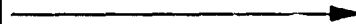
**MERA ELZAB SHOULD CONCENTRATE ON ACHIEVING THE FOLLOWING GOALS:**

Joint Venture  
Xyllyx Research  
EPOS



- Ensure financial risk for MERA ELZAB is limited by carefully assessing required investment
- Organise joint venture structure that allows positive cashflow to be allocated to MERA ELZAB in the first year of operation
- This can be achieved by having MERA ELZAB manufacture EPOS equipment for the JV

Partnership Supplier  
and Distribution



- It is clear that MERA ELZAB cannot be successful in the computer market on its own
- MERA ELZAB's management should improve the company's competitive position through cooperation with successful players in the industry. MERA ELZAB can offer low cost labour, intensive production and trained engineers

Personnel



- Although current salary indexation is limited to 60% of inflation, considerations should be given to increase salary bases for high calibre people MERA ELZAB wants to retain

Strategic Business Plan...

Summary of Actions

		Actions	Objective	(+)	(-)	Who	When
Non Core Assets	Social	Sell	Increase cash flow	Increase cash flow for 1992 Save on running costs	Not significant	General Director & Council of Workers	Immediate
	Productive	Sell or dispose of	Increase cash flow	Increase space available Streamline manufacturing process	Limited technological base	General Director & Production Manager	After having decided on product mix
Engineering & Production Support Staff		Lay off unnecessary staff	Lower operating costs and break even point Adjust employment structure for building re guidelines	Reduce operating costs	Limited Technological base	General Director & Production Manager	After having decided on product mix
Management of Human Resources		Increase salary	Retain good employees	Increase Motivation	Increases Wage Base	General Director & Council of Workers	After reducing work force
Partnership Monitors		Negotiate preferential conditions with AOC	Improve competitive standing Decrease costs	Reliable high quality supplier	Tied to one major supplier	Management	By 1992
EPOS JV		Manufacture EPOS then sell to J.V.	Diversify product mix	If well structured, increases cash flow	Partner has no financial backing	Management	By 1992

Source: CET Analysis

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Strategic Business Plan...

**MERA ELZAB WILL GO BANKRUPT BY THE END OF 1992 IF NOTHING IS CHANGED TO TURN THE COMPANY AROUND. MANAGEMENT CAN SELL NON-CORE BUSINESS ASSETS, LAY OFF PERSONNEL AND INCREASE SALES REVENUE SIGNIFICANTLY**

	Model A	Model B	Model C	Model D
Activities & Actions	Monitors 8000/month	Monitors 8000/month & sales of non-core assets	Monitors & lay off support & engineering staff	Monitors & EPOS
Operating Cashflow	very negative	same as model A	nearly positive	positive cashflows in 1994
Will survive until	Bankruptcy by year end 1992	Bankruptcy delayed until mid 1993	can survive until 1993	<ul style="list-style-type: none"> <li>• can survive</li> <li>• overdraft facility to be negotiated</li> </ul>
Conclusion	<ul style="list-style-type: none"> <li>• Volume is not sufficient to absorb all costs</li> <li>• company is not profitable on an operating basis</li> <li>• negative bank balance is growing</li> <li>• only financing backed by assets (at a discounted volume) will be possible</li> </ul>	<ul style="list-style-type: none"> <li>• same as in Model A</li> <li>• sales of assets provide more time to consider other options</li> </ul>	<ul style="list-style-type: none"> <li>• Mera Elzab will be able to survive</li> <li>• Lay off engineering staff will impair Mera's chance to enter higher value added production</li> </ul>	<ul style="list-style-type: none"> <li>• Recommended that lay offs to improve cash flow</li> <li>• Positive cash flow from JV depends on Mera's ability to properly structure the deal</li> </ul>

**Note:** A. As of October 1991, negotiations for a 1992 contract for the delivery of 72,600 monitors to the USSR are still in progress.

B. Business Plan does not assume any capital investment from Mera Elzab

Source: CET Analysis

CENTRAL EUROPE TRUST

Strategic Business Plan...

**MERA ELZAB WILL NOT SURVIVE SELLING MONITORS ONLY SINCE VALUE ADDED IS TOO LOW. TO BREAK EVEN, MERA ELZAB WOULD NEED TO SELL 190,000 MONITORS PER YEAR AND INVEST IN MACHINERY AND EQUIPMENT**

**See attachment - Business Plan Model A**

Source: CET Analysis

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**BUSINESS PLAN MODEL A**      Business Assumptions:  
Monitors Only

All numbers in Zl million except where noted otherwise

	1992												Tot 1992	
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec		
Inflation		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
Wages Increase		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
Interest Rate/Monthly	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
Exchange Rate	11400	11742	12094	12457	12831	13216	13612	14021	14441	14874	15321	15780		
<b>SALES</b>														
<b>Monitors</b>														
USSR - volume	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	72000
- Price US\$	242	242	242	242	242	242	242	242	242	242	242	242	242	
Pol - B&W mon - Vol	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000
- Price ZL 000's	950	979	1008	1038	1069	1101	1134	1168	1203	1240	1277	1315		
Pol- Color Mon - Vol	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000
- Price Zl 000's	3000	3090	3183	3278	3377	3478	3582	3690	3800	3914	4032	4153		
<b>Other Countries</b>														
<b>Other Products</b>														
<b>Total Sales</b>	<b>20469</b>	<b>21083</b>	<b>21715</b>	<b>22367</b>	<b>23038</b>	<b>23729</b>	<b>24441</b>	<b>25174</b>	<b>25929</b>	<b>26707</b>	<b>27508</b>	<b>28333</b>	<b>290491</b>	
<b>Costs</b>														
<b>Com. Charges &amp; Trans</b>														
- USSR monitors	2811	2896	2982	3072	3164	3259	3357	3457	3561	3668	3778	3891	39897	
- Poland monitors	513	528	544	561	577	595	613	631	650	669	689	710	7281	
- Color	14819	15263	15721	16193	16679	17179	17694	18215	18772	19335	19915	20513	210310	
- B & W	684	705	726	747	770	793	817	841	866	892	919	947	9707	
<b>Energy</b>	<b>200</b>	<b>206</b>	<b>212</b>	<b>219</b>	<b>225</b>	<b>232</b>	<b>239</b>	<b>246</b>	<b>253</b>	<b>261</b>	<b>269</b>	<b>277</b>	<b>2838</b>	
<b>Transportation/Outside</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Repair &amp; Maint</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Mat exp - Foreign Ops</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Wages</b>	<b>1500</b>	<b>1527</b>	<b>1554</b>	<b>1582</b>	<b>1611</b>	<b>1640</b>	<b>1669</b>	<b>1700</b>	<b>1730</b>	<b>1761</b>	<b>1793</b>	<b>1825</b>	<b>19893</b>	
<b>Wages Tax</b>	<b>300</b>	<b>305</b>	<b>311</b>	<b>316</b>	<b>322</b>	<b>328</b>	<b>334</b>	<b>340</b>	<b>346</b>	<b>352</b>	<b>359</b>	<b>365</b>	<b>3979</b>	
<b>Social Insurance</b>	<b>600</b>	<b>611</b>	<b>622</b>	<b>633</b>	<b>644</b>	<b>656</b>	<b>668</b>	<b>680</b>	<b>692</b>	<b>705</b>	<b>717</b>	<b>730</b>	<b>7957</b>	
<b>Workers Fund</b>	<b>75</b>	<b>76</b>	<b>78</b>	<b>79</b>	<b>81</b>	<b>82</b>	<b>83</b>	<b>85</b>	<b>87</b>	<b>88</b>	<b>90</b>	<b>91</b>	<b>995</b>	



Wages Bonus	150	153	155	158	161	164	167	170	173	176	179	183	1989
Exp Social Assets	50	52	53	55	56	58	60	61	63	65	67	69	710
Federal Tax	52	52	52	52	52	52	52	52	52	52	52	52	624
Travel expenses	100	103	106	109	113	116	119	123	127	130	134	138	1419
Other Non material cos	40	41	42	44	45	46	48	49	51	52	54	55	568
Financial Interests	70	0	0	0	0	0	20	100	190	285	385	500	1550
Depreciation	540	540	540	540	540	540	540	540	540	540	540	540	6480
Total Costs	22504	23058	23700	24360	25040	25740	26480	27301	28153	29033	29941	30887	316197
Income Before Tax	-2036	-1975	-1985	-1994	-2003	-2011	-2039	-2127	-2224	-2326	-2433	-2554	-25706
Excessive Wage Tax													
Income Tax	0	0	0	0	0	0	0	0	0	0	0	0	
Net Income:	-2036	-1975	-1985	-1994	-2003	-2011	-2039	-2127	-2224	-2326	-2433	-2554	-25706
Net Income after Dep	-1496	-1435	-1445	-1454	-1463	-1471	-1499	-1587	-1684	-1786	-1893	-2014	-19226
Receipts	0	20469	21083	21715	22367	23038	23729	24441	25174	25929	26707	27508	Receivables Balance 12/31/91 28333
- 1991 A/R	6700	5000	5000										Payables Balance 12/31/91 26061
Disbursements	3137	21953	22578	23221	23883	24564	25285	26086	26919	27778	28664	29588	
- A/P 1991	5700												
Net Operating Cashflo	-2137	3516	3505	-1506	-1516	-1527	-1556	-1646	-1745	-1849	-1957	-2080	-10498
Net Oper Cashflow excluding interests	-2067	3516	3505	-1506	-1516	-1527	-1536	-1546	-1555	-1564	-1572	-1580	-8948
Invest/Divestment													
Bank Bal 31/12/91	800												
Net Cash Position	-1337	2179	5683	4177	2661	1134	-422	-2068	-3813	-5661	-7618	-9698	
CP Posit w/Loan	63	2179	5683	4177	2661	1134	-22	-68	-13	39	82	302	
Revolving Loan	1400	0	0	0	0	0	400	2000	3800	5700	7700	10000	

Strategic Business Plan...

**THOUGH MERA ELZAB CANNOT GENERATE POSITIVE CASH FLOW FROM OPERATIONS, THE SALE OF ASSETS  
WILL ALLOW THE COMPANY TO SURVIVE UNTIL MID 1993**

See attachment - **Business Plan Model B**

**BUSINESS PLAN MODEL B**      **Business Assumptions**  
**Monitors Only**      **& Sales of Social and non-core assets**

All numbers in Zl million except where noted otherwise

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Tot 1992
Inflation		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
Wages Increase		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
Interest Rate/Monthly	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
Exchange Rate	11400	31742	12094	12457	12831	13216	13612	14021	14441	14874	15321	15780	
<b>SALES</b>													
<b>Monitors</b>													
USSR - volume	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	72000
- Price US\$	242	242	242	242	242	242	242	242	242	242	242	242	2928
Pol - BK & W minn - Vol	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000
- Price ZL 000's	940	979	1008	1038	1069	1101	1134	1168	1203	1240	1277	1315	14700
Pol - Color Minn - Vol	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000
- Price ZL 000's	3000	3000	3183	3278	3377	3478	3582	3690	3800	3914	4032	4153	47700
Other Countries													
<b>Other Products</b>													
<b>Total Sales</b>	20469	21083	21715	22367	23038	23729	24441	25174	25929	26707	27508	28333	296101
<b>Costs</b>													
<b>Com. Charges &amp; Trans</b>													
- USSR monitors	2311	2896	2982	3072	3164	3259	3357	3457	3561	3668	3778	3891	44400
- Poland monitors	513	528	544	561	577	595	613	631	650	669	689	710	8400
- Color	14819	15263	15721	16193	16679	17179	17694	18225	18772	19335	19915	20513	240000
- B & W	684	705	726	747	770	793	817	841	866	892	919	947	11200
Energy	200	206	212	219	225	232	239	246	253	261	269	277	3300
Transportation/Outside	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair & Maint	0	0	0	0	0	0	0	0	0	0	0	0	0
Mat exp - Foreign Ops	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Wages</b>	1500	1527	1554	1582	1611	1640	1669	1700	1730	1761	1793	1825	21600
Wages Tax	300	305	311	316	322	328	334	340	346	352	359	365	4320
Social Insurance	600	611	622	633	644	656	668	680	692	705	717	730	8640
Workers Fund	75	76	78	79	81	82	83	85	87	88	90	91	1080

Wages Bonus	150	153	155	158	161	164	167	170	173	176	179	183	1989
Exp Social Assets	50	52	53	55	56	58	60	61	63	65	67	69	710
Federal Tax	52	52	52	52	52	52	52	52	52	52	52	52	624
Travel expenses	100	103	106	109	113	116	119	123	127	130	134	138	1419
Other Non material cos	40	41	42	44	45	46	48	49	51	52	54	55	568
Financial Interests	70	0	0	0	0	0	0	0	0	0	0	0	70
Depreciation	540	540	540	540	540	540	540	540	540	540	540	540	6480
Total Costs	22504	23058	23700	24360	25040	25740	26460	27201	27963	28748	29556	30387	314717
Income Before Tax	-2036	-1975	-1985	-1994	-2003	-2011	-2019	-2027	-2034	-2041	-2048	-2054	-24226
Excessive Wage Tax													
Income Tax	0	0	0	0	0	0	0	0	0	0	0	0	
Net Income	-2036	-1975	-1985	-1994	-2003	-2011	-2019	-2027	-2034	-2041	-2048	-2054	-24226
Net Income after Dep	-1496	-1435	-1445	-1454	-1463	-1471	-1479	-1487	-1494	-1501	-1508	-1514	-17746
Receipts	0	20469	21083	21715	22367	23038	23729	24441	25174	25929	26707	27508	Receivables Balance 12/31/91 28333
- 1991 A/R	6700	5000	5000										Payables Balance 12/31/91 26061
Disbursements	3137	21953	22578	23221	23883	24564	25265	25986	26729	27493	28279	29088	26061
- A/P 1991	5700												
Net Oper Cashflow	-2137	3516	3505	-1505	-1516	-1527	-1536	-1546	-1555	-1564	-1572	-1580	-9018
Net Oper Cashflow excluding interests	-2067	3516	3505	-1506	-1516	-1527	-1536	-1546	-1555	-1564	-1572	-1580	-8948
Invest/Divestment Building - Zabze Recreational resorts Shares in Furnel				500		4000		5000	5000				
Bank Bal 11/12/91	800												
Net Cash Position	-1337	2179	5683	4177	3161	5634	9098	12552	10997	9434	7862	6282	
CP Posit w/Loan	63	2179	5683	4177	3161	5634	9098	12552	10997	9434	7862	6282	
Revolving Loan	1400	0	0	0	0	0	0	0	0	0	0	0	

Strategic Business Plan...

**LAYING OFF 250 PEOPLE FROM THE ENGINEERING, PRODUCTION SUPPORT AND ADMINISTRATIVE DEPARTMENTS WOULD SAVE AROUND 40% ON WAGES AND BRING OPERATING CASH FLOW TO A NEARLY POSITIVE SITUATION. MERA ELZAB COULD SURVIVE TILL 1993, WHILE SELLING ONLY MONITORS**

See attachment - **Business Plan Model C**

**BUSINESS PLAN MODEL C**      Business Assumptions:  
**Monitors Only**      Reduce Support & Engineering personnel => 40% savings on labor costs

All numbers in Zl million except where noted otherwise

	1992												Tot 1992	
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec		
<b>Inflation</b>		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
<b>Wages Increase</b>		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
<b>Interest Rate/Monthly</b>	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
<b>Exchange Rate</b>	11400	11742	12094	12457	12831	13216	13612	14021	14441	14874	15321	15780		
<b>SALES</b>														
<b>Monitors</b>														
<b>USSR - volume:</b>	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	72000
- Price US\$	242	242	242	242	242	242	242	242	242	242	242	242	242	
<b>Pol - B &amp; W mon - Vol</b>	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000
- Price ZL 000's	950	979	1008	1038	1069	1101	1134	1168	1203	1240	1277	1315	1315	
<b>Pol - Color Mon - Vol</b>	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000
- Price Zl 000's	3000	3090	3183	3278	3377	3478	3582	3690	3800	3914	4032	4153	4153	
<b>Other Countries</b>														
<b>Other Products</b>														
<b>Total Sales</b>	20469	21083	21715	22367	23038	23729	24441	25174	25929	26707	27508	28333	290491	
<b>Costs</b>														
<b>Com, Charges &amp; Trans</b>														
- USSR monitors	2811	2896	2982	3072	3164	3259	3357	3457	3561	3668	3778	3891	39897	
- Poland monitors	513	528	544	561	577	595	613	631	650	669	689	710	7281	
- Color	14819	15263	15721	16193	16679	17179	17694	18225	18772	19335	19915	20513	210310	
- B & W	684	705	726	747	770	793	817	841	866	892	919	947	9707	
<b>Energy</b>	200	206	212	219	225	232	239	246	253	261	269	277	2838	
<b>Transportation/Outside</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Repair &amp; Maint</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Mat exp - Foreign Ops</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Wages</b>	900	916	933	949	967	984	1002	1020	1038	1057	1076	1095	11936	
<b>Wages Tax</b>	180	183	187	190	193	197	200	204	208	211	215	219	2387	
<b>Social Insurance</b>	360	366	373	380	387	394	401	408	415	423	430	438	4774	
<b>Workers Fund</b>	45	46	47	47	48	49	50	51	52	53	54	55	597	

Wages Bonus	90	92	93	95	97	98	100	102	104	106	108	110	1194
Exp Social Assets	50	52	53	55	56	58	60	61	63	65	67	69	710
Federal Tax	52	52	52	52	52	52	52	52	52	52	52	52	624
Travel expenses	100	103	106	109	113	116	119	123	127	130	134	138	1419
Other Non material cos	40	41	42	44	45	46	48	49	51	52	54	55	568
Financial Interests	15	0	0	0	0	0	0	0	0	0	0	0	15
Depreciation	540	540	540	540	540	540	540	540	540	540	540	540	6480
<b>Total Costs</b>	<b>21399</b>	<b>21989</b>	<b>22612</b>	<b>23253</b>	<b>23913</b>	<b>24592</b>	<b>25291</b>	<b>26011</b>	<b>26752</b>	<b>27515</b>	<b>28301</b>	<b>29109</b>	<b>300737</b>
Income Before Tax	-931	-906	-896	-886	-875	-863	-851	-837	-823	-808	-793	-776	-10246
<b>Excessive Wage Tax</b>													
Income Tax	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income	-931	-906	-896	-886	-875	-863	-851	-837	-823	-808	-793	-776	-10246
Net Income after Dep	-391	-366	-356	-346	-335	-323	-311	-297	-283	-268	-253	-236	-3766
Receipts	0	20469	21083	21715	22367	23038	23729	24441	25174	25929	26707	27508	Receivables Balance 12/31/91 28333
- 1991 A/R	6700	5000	5000										Payable Balance 12/31/91 26061
Disbursements	2032	20884	21490	22113	22755	23416	24096	24797	25518	26260	27024	27810	
- A/P 1991	5700												
Net Operating Cashflo	-1032	4584	4593	-398	-389	-379	-368	-356	-344	-331	-317	-302	4962
Net Oper Cashflow excluding interests	-1017	4584	4593	-398	-389	-379	-368	-356	-344	-331	-317	-302	4977
<b>Invest/Divestment</b>													
Bank Bal 31/12/91	800												
Net Cash Position	-232	4352	8945	8547	8158	7780	7412	7056	6712	6381	6064	5762	
CF Posit w/Loan	68	4352	8945	8547	8158	7780	7412	7056	6712	6381	6064	5762	
Revolving Loan	300	0	0	0	0	0	0	0	0	0	0	0	

Strategic Business Plan...

**MERA ELZAB COULD BE A PROFITABLE COMPANY IF IT WERE TO SELL MONITORS AND EPOS SYSTEMS IN HIGH VOLUMES. HOWEVER, ASSUMPTIONS FOR THIS BUSINESS PLAN ARE OPTIMISTIC AND GREATLY DEPEND ON THE JOINT VENTURE'S ABILITY TO SUCCESSFULLY MARKET EPOS EQUIPMENT IN WESTERN EUROPE AND POLAND. FURTHERMORE, THE PLAN ASSUMES WAGE INCREASES AT 60% OF INFLATION, LARGE SAVINGS TO MERA ELZAB'S BENEFIT. SUCH SAVINGS WILL NOT BE POSSIBLE FOR AN EXTENDED PERIOD OF TIME. LIMITED LAYOFFS OF PERSONNEL SHOULD BE CARRIED OUT AS SOON AS POSSIBLE, WHILE TAKING IN TO ACCOUNT CAPACITY REQUIREMENTS.**

**See attachment - Business Plan Model D**

CENTRAL EUROPE TRUST

MERA/07/91/PR



**BUSINESS PLAN MODEL D** Business Assumptions:  
Monitors & EPOS

All numbers in Zl million except where noted otherwise

	Jan	Feb	Mar	1992									Tot 1992	1993	1994
				Apr	May	June	July	Aug	Sep	Oct	Nov	Dec			
Inflation		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	Annual	0.20	0.20
Wages Increase		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.15	0.15
Interest Rate/Monthly	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	For 1993	30.00	30.00
Exchange Rate	11400	11742	12094	12457	12831	13216	13612	14021	14441	14874	15321	15780	& 1994	18936	22723
<b>SALES</b>															
<b>Monitors</b>															
USSR - volume	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	72000	72000	72000
- Price US\$	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242
Pol - B&W mon- Vol	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000	12000	12000
- Price ZL 000's	950	979	1008	1038	1069	1101	1134	1168	1203	1240	1277	1315	12000	12000	12000
Pol- Color Mon - Vol	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000	12000	12000
- Price Zl 000's	3000	3090	3183	3278	3377	3478	3582	3690	3800	3914	4032	4153	12000	12000	12000
Other Countries														4983	5980
EPOS - Volume			250	250	250	250	300	300	300	300	400	400	3000	8000	10000
EPOS - Sales			2570	2647	2727	2808	3471	3575	3683	3793	5209	5365	35848	128765	193147
<b>Total Sales</b>	<b>20469</b>	<b>21083</b>	<b>24285</b>	<b>25014</b>	<b>25764</b>	<b>26537</b>	<b>27912</b>	<b>28749</b>	<b>29612</b>	<b>30500</b>	<b>32717</b>	<b>33699</b>	<b>326339</b>	<b>536759</b>	<b>682740</b>
<b>Costs</b>															
<b>Com. Charges &amp; Trans</b>															
- USSR monitors	2811	2896	2982	3072	3164	3259	3357	3457	3561	3668	3778	3891	39897	56035	67242
- Poland monitors	513	528	544	561	577	595	613	631	650	669	689	710	7281	10225	12271
<b>Material Costs</b>															
- Color	14819	15263	15721	16193	16679	17179	17694	18225	18772	19335	19915	20513	210310	295379	354455
- B & W	684	705	726	747	770	793	817	841	866	892	919	947	9707	13634	16361
- EPOS	0	0	2210	2277	2345	2415	2985	3075	3167	3257	4480	4614	30829	110738	166107
<b>Energy</b>	<b>200</b>	<b>206</b>	<b>212</b>	<b>219</b>	<b>225</b>	<b>232</b>	<b>239</b>	<b>246</b>	<b>253</b>	<b>261</b>	<b>269</b>	<b>277</b>	<b>2838</b>	<b>3406</b>	<b>4087</b>
<b>Transportation/Outside</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Repair &amp; Maint</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Mat exp - Foreign Ops</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Wages</b>	<b>1500</b>	<b>1527</b>	<b>1554</b>	<b>1582</b>	<b>1611</b>	<b>1640</b>	<b>1669</b>	<b>1700</b>	<b>1730</b>	<b>1761</b>	<b>1793</b>	<b>1825</b>	<b>19893</b>	<b>22877</b>	<b>26309</b>
<b>Wages Tax</b>	<b>300</b>	<b>305</b>	<b>311</b>	<b>316</b>	<b>322</b>	<b>328</b>	<b>334</b>	<b>340</b>	<b>346</b>	<b>352</b>	<b>359</b>	<b>365</b>	<b>3979</b>	<b>4575</b>	<b>5262</b>
<b>Social Insurance</b>	<b>600</b>	<b>611</b>	<b>622</b>	<b>633</b>	<b>644</b>	<b>656</b>	<b>668</b>	<b>680</b>	<b>692</b>	<b>705</b>	<b>717</b>	<b>730</b>	<b>7957</b>	<b>9151</b>	<b>10524</b>

Workers Fund	75	76	78	79	81	82	83	85	87	88	90	91	995	1144	1315
Wages Bonus	150	153	155	158	161	164	167	170	173	176	179	183	1989	2288	2631
Exp Social Assets	50	52	53	55	56	58	60	61	63	65	67	69	710	852	1022
Federal Tax	52	52	52	52	52	52	52	52	52	52	52	52	624	749	899
Travel expenses	100	103	106	109	113	116	119	123	127	130	134	138	1419	1703	2044
Other Non material cos	40	41	42	44	45	46	48	49	51	52	54	55	568	681	817
Financial Interests	75	0	0	0	0	0	0	0	50	110	170	225	630	1050	0
Depreciation	540	540	540	540	540	540	540	540	540	540	540	540	6480	7776	9331
Total Costs	22509	23058	25910	26637	27385	28155	29445	30275	31180	32120	34206	35226	346107	542263	680676
Income Before Tax	-2041	-1975	-1625	-1623	-1621	-1618	-1533	-1526	-1569	-1610	-1488	-1528	-19767	-5504	2065
Excessive Wage Tax															
Income Tax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	826
Net Income	-2041	-1975	-1625	-1623	-1621	-1618	-1533	-1526	-1569	-1620	-1488	-1528	-19767	-5504	1239
Net Income after Dep	-1501	-1435	-1085	-1083	-1081	-1078	-993	-986	-1029	-1080	-948	-988	-13287	2272	10570
Receipts	0	20469	21083	24285	25014	25764	26537	27912	28749	29612	30500	32717		525728	670575
- 1991 A/R	6700	5000	5000												
Disbursements	3142	21953	22578	25431	26160	26909	27680	28972	29853	30770	31711	33795		524662	661302
- A/P 1991	5700														
Net Operating Cashflo	-2142	3516	3505	-1146	-1146	-1145	-1143	-1060	-1104	-1158	-1211	-1076	-5311	1066	9274
Net Operating CP with no interests	-2067	3516	3505	-1146	-1146	-1145	-1143	-1060	-1054	-1048	-1041	-851	-4681	2116	9274
Invest/Divestment	0														
Bank Bal 31/12/91	800														
Net Cash Position	-1267	2249	5753	4607	3461	2316	1173	113	-991	-2149	-3360	-4436		-3370	5904
Accounts Receivables												33699		44730	56895
Accounts Payable												30675		40501	51370
Inventories															
CP Posit w/Loan	233	2249	5753	4607	3461	2316	1173	113	9	51	40	64		130	5904
Revolving Loan	1500	0	0	0	0	0	0	0	1000	2200	3400	4500		3500	0

Strategic Business Plan... Assumptions...

**CET AND MERA ELZAB'S MANAGEMENT ESTABLISHED THE FOLLOWING ASSUMPTIONS FOR THE BUSINESS PLAN:**

- Inflation: 3%/month
- Devaluation: \$ exchange rate → pegged to inflation
- Wages increase
  - 60% of inflation
  - However paying people under market conditions will force good workers to leave Mera Elzab
  - Mera Elzab's policy should be to increase salary as much as possible while not paying the excessive wage tax, currently at 500% of increases over 60% of inflation
  - As per 1991 cost structure and monthly wage increase stated earlier
  - January 1992 wages - up 25% from July 1991 level to account for inflation pay increase

- Sales Monitors
  - 6000/month to the USSR EGA
  - 1000/month Poland Black & White
  - 1000/month Poland Colour

Currency	Inflation
US\$	-
ZL	increased as per inflation

Strategic Business Plan... Assumptions...

- Direct Costs - Monitors

		Material (\$)	Commission Charges & Transport (\$)
Black & White		60	15
Colour	Poland	185.7	30
	USSR	185.7	41.1

- Energy - ZL 2000 mln/month as of January 1992 indexed to monthly inflation
- Transportation, repair and maintenance costs are deemed included in the costs listed as direct costs for monitors
- Wages - the following formula was used:

	% of Net Wages
wages tax	20%
social insurance	40%
workers fund	5%
wages bonus	10%

## Strategic Business Plan... Assumptions...

- Expenses for Social Assets                      zl 50 million/month

- Other costs    [as of January 92]  
   [(zl mln) per month]

- Federal Tax	52
- Travel Expenses	100
- Other non material costs	40
- Depreciation	540

- Financial Interest
  - 5% month on overdraft facility required to bring back balance to zero position as necessary
  - No interest is computed on positive bank balance (conservative approach)

- Excessive Wage Tax: Salary strategy of not paying above authorised levels

- Working Capital

- Accounts Payable and Accounts Receivable outstanding at 31/12/91 are respectively paid in January and over these months
- Receipts one month after shipment
- Disbursements
  - Parts and commissions, charges and transport paid at the same time as sales are paid to Mera Elzab
  - Financing costs are already included in direct costs as listed above
  - Other costs are paid the same month as they are incurred

Strategic Business Plan... Assumptions...

Investment/Divestment

- No capital asset investment required. Mera Elzab can produce up to 100,000 monitors and 10,000 EPOS per year with current productive assets

Bank Position

- The following cash flow position as of 31/12/91 was considered for the business plan - It represents the optimistic option suggested by Mera Elzab's management
- Includes a Zl 10 billion payment to be received from the USSR for the deliveries of cardiomonitors by year-end 1991
- Assumed treasury position at 31/12/91 is as follows:

	Zl mln
- Bank Balance	800
- Accounts Payable	5700
- Accounts Receivable	16700

## Strategic Business Plan... Assumptions...

### Divestment

- Management has already started a programme to sell off social assets and non-core business assets  
Under consideration are the following assets:
  - 14% stake in Furnel a large trading company  
Management values the stake at z1 31 billion based on the price requested by another Furnel shareholder. Conservatively, CET values the stake at z1 10 billion to be cashed in June and July 1992
- Housing buildings located in Zabrze are to be sold to employees or auctioned off. A first installment of z1 500 million is expected soon - In total, buildings to be sold are valued at over z1 6 billion (not taken into account in the business plan)
- Recreational facilities and resorts are valued at z1 4 billion to be cashed in May 1992
- Only model B takes into account the above divestments

Strategic Business Plan... Assumptions...

EPOS

The joint venture between Xyllyx Research International and Mera Elzab is still being discussed. The structure of the JV has got to be determined

Consequently, the following assumptions were taken up:

- Material costs £430 → US\$731

- Transfer price from Mera Elzab to the JV £500 → US\$850  
Note: the estimated manufacturing price to be charged to UK distributions is £800

(Management estimated a figure of £600 which CET deemed unrealistic. £500 seems more realistic as CET assured, no investment on Mera's part. Everything would come from the JV)

Required Investment

- capital assets                      • Such investments in additional equipment and machinery to be taken up by the joint venture
- need in working capital        • None. To be financed by the joint venture

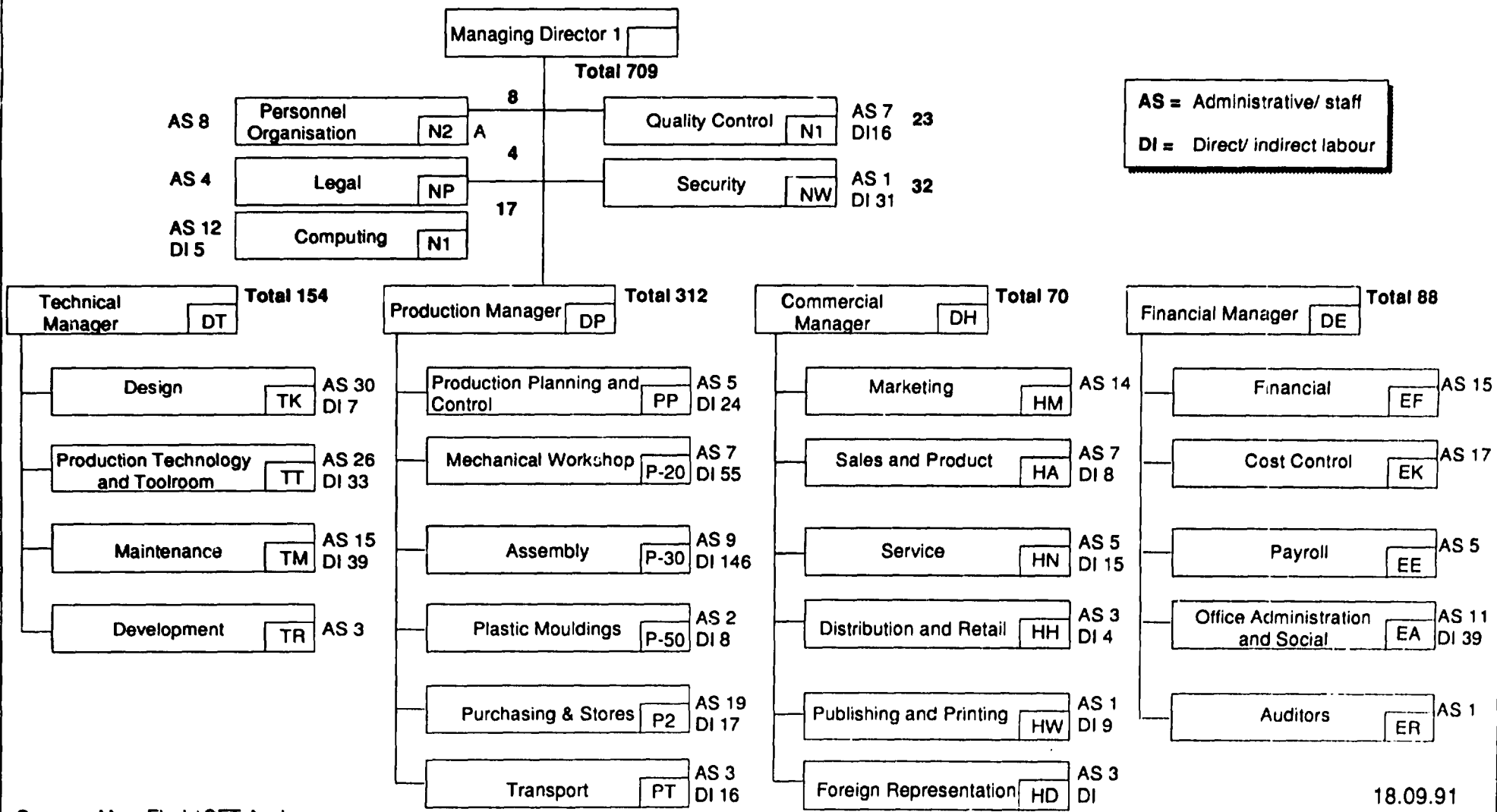


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- II COMPUTER MARKETS
- III MERA ELZAB DIAGNOSTIC
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Appendix...



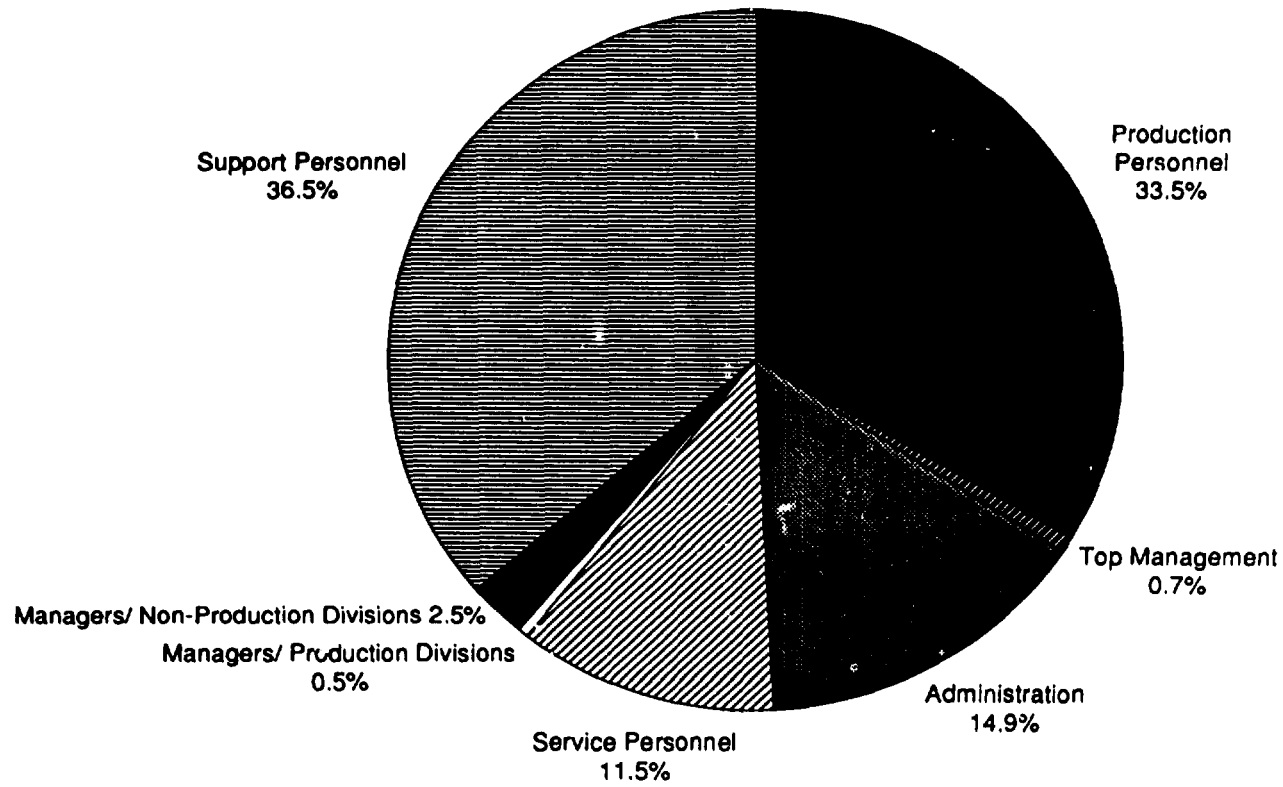
Source: Mera Elzab/ CET Analysis

18.09.91

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### Employment Structure



Source: Mera Elzab/ CET Analysis

Appendix...

**Mera Elzab - Zabrze  
Revaluation of Fixed Assets**

	<b>Revaluation Cost Zl Min</b>	<b>Revaluation Depreciation Zl Min</b>	<b>Revaluation by Net Book Value Zl Min</b>
1. At 01.01.90 by 'line by line' method	60,737	17,098	46,629
2. At 31.12.90 by simplified method	102,811	32,215	70,596
3. At 31.12.90 By 'line by line' method	83,453	24,798	58,660
Difference (2-3)	19,353	7,417	11,936
<b>Total 1 + 3</b>	<b>147,185</b>	<b>41,896</b>	<b>105,289</b>

Source : CET Analysis

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Appendix...

**MOST OF MERA ELZAB'S ASSET VALUE IS REVALUATION. DEPRECIATION BASED ON REVALUED NET BOOK VALUE IS NOT A VALID BASE FOR COSTING PRODUCTION OR VALUING THE COMPANY**

**Mera Elzab-Zabrze  
Fixed Assets (Zl million)**

	Cost (Revalued)				Depreciation (Revalued)				Net Book Value
	At 1.1.91	Additional	Scrapped	At 31.05.91	At 1.1.91	Charge	Eliminated	At 31.05.91	
Buildings	75,806	—	—	75,806	6,869	785	—	7,654	68,152
Structures	14,438	—	—	14,438	1,098	239	—	1,337	13,101
Power Plant	131	—	—	131	34	2	—	36	95
General Machinery	30,656	169	569	30,256	21,368	794	566	21,596	8,660
Specialised Machinery	7,246	121	—	7,367	1,991	252	—	2,243	5,124
Technical Apparatus	10,990	62	220	10,832	4,341	339	219	4,461	6,371
Transport	3,280	—	174	3,106	1,977	125	164	1,938	1,168
Fixtures and Fittings	8,115	—	—	8,115	6,130	266	—	6,396	1,719
	150,662	352	963	150,051	43,808	2,802	949	45,661	104,390

Source: CET Analysis

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Appendix...

**STATE DIVIDEND IS BASED ON NET BOOK VALUE AND NOT PROFITS GENERATED RESULTING IN CASH FLOW DIFFICULTIES AND INABILITY TO REGENERATE ASSETS FOR THE FUTURE**

**Mera Elzab - Income Statement  
Apportionment of Profit**

	1989	1990	31.5.91
Profit (Loss)	25,279	75,451	(6,275)
Statutory Appropriations			
- dividend	304	889	453
- profits tax	1,985	30,015	-
- supernormative payroll tax	2,870	550	-
<b>Total</b>	<b>5,159</b>	<b>31,454</b>	<b>453</b>
Other Appropriations			
- transfer to workforce fund	4,150	7,363	-
- transfer to enterprise fund	4,000	23,000	-
- charitable donations	29	93	-
<b>Total</b>	<b>8,179</b>	<b>30,456</b>	<b>-</b>
Unappropriated profit (loss)	11,941	13,541	(6,728)

Source: CET Analysis

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Appendix...

**Investments in Other Enterprises (as at 31.12.90)**

<b>Name</b>	<b>Date of Investment</b>	<b>Cost of Investment ZI Min</b>	<b>Dividend Received ZI Min</b>
Metronex	13.12.82	4	153
Spolka ISA	30.6.88	7	4
Spolka "Polski Zagle"	11.9.87	10	
Bank Rozwoju Eksportu SA	3.87	6	22.5
Furnel	11.2.87	270	1,400
Spolka "Warlen" Leningrad	20.6.89	72	69.3
		(191,700 Rubles)	
Elpact	25.8.89	363	
		732	1,648.8
Koncern "Elpol" SP ZOO shares costing ZI 27 mln			400.0
			2,048.8

Koncern "Elpol" SP ZOO shares costing 27M ZX sold

**Comment:** These accounting values are most likely significantly lower than current "market" values

**Source:** CET Analysis