

**Deloitte &
Touche**



PD-ABI-134

1991 87143

***Bulgaria Electronics
Privatization
Final Report***

Delivery Order No. 20

Contract No. EUR-0014-I-00-1056-00
Eastern Europe Enterprise Restructuring and
Privatization Project

U.S. Agency for International Development
EUR/RME

February 1994

**Deloitte Touche
Tohmatsu
International**

**Deloitte Touche
Tohmatsu
International**



**International Lending
Agencies Group**
1001 Pennsylvania Avenue, N.W.
Suite 350N
Washington, DC 20004-2505, USA

Telephone: (202) 879-5600
Facsimile: (202) 879-5607
Telex 323020 DHSILA DC

15 March 1994

Mr. Gary Maher
Agency for International Development
EUR/RME
320 21st Street, N.W.
Washington, DC 20523

**Re: Contract No. EUR-0014-I-00-1056-00, Delivery Order No. 20,
Bulgarian Electronics Industry - Final Report**

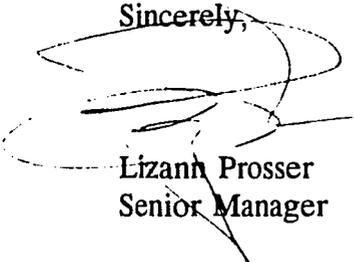
Dear Gary,

Enclosed are four copies of the **Final Report** on the Bulgarian Electronics Industry project.

In brief, it outlines the methods used and achievements realized by the project team as they initiated the privatization of five companies in the Bulgarian electronics industry. In addition to the specific progress made toward this goal, the report identifies considerable benefits realized beyond the scope of the project. These benefits include: the transfer of skills to the Bulgarian nationals who assisted the project team and are now able to assist with similar projects in the future; the detailed Inventory of the Bulgarian electronics industry that was developed in the process of identifying privatization candidates; and a database of Western and Japanese investors who have expressed interest in investment opportunities in Bulgarian electronics. It concludes with recommendations regarding the continuation of the project and a review of structural and regulatory constraints affecting the overall privatization process that were encountered by the project team.

It has been our pleasure to work with you on this project. If you have any questions concerning this report, please call me at (202) 879-5612.

Sincerely,



Lizann Prosser
Senior Manager

BULGARIA ELECTRONICS PRIVATISATION

CONTRACT NO. EUR 0014-I-00-1056-00

FINAL REPORT

February 1994

BULGARIA ELECTRONICS PRIVATISATION

CONTENTS

SECTION	PAGE
1. INTRODUCTION AND SUMMARY	1
2. BACKGROUND	4
3. ROLES OF MINISTRY OF INDUSTRY AND PRIVATISATION AGENCY	6
4. PROJECT CHRONOLOGY	8
5. PHASE 1 - SURVEY AND SELECTION	11
5.1 Survey	11
• Methodology	
• Visit Procedure	
• Processing of Questionnaires	
5.2 Selection of Firms for Privatisation	15
• The Selection Process	
• Shortlisted Firms	
• Technical and Marketing Appraisal	
• Financial Appraisal	
5.3 Phase 1 Deliverables	20
6. PHASE 2 - SEARCH FOR INVESTORS	21
6.1 The Process	21
• Information Memoranda	
• Mailshots	
• Advertising	
6.2 Replies	24
6.3 Important Responses	25
7. CONCLUSIONS AND RECOMMENDATIONS	31

**BULGARIA ELECTRONICS PRIVATISATION
CONTENTS**

APPENDICES

- | | |
|------------|----------------------|
| Appendix 1 | Survey Questionnaire |
| Appendix 2 | List of Contacts |

SECTION 1
INTRODUCTION AND SUMMARY

This is the final report of a US AID funded project which started in November 1992 and had as its primary objective the pilot privatisation of up to three Bulgarian electronics companies. The project was divided into a first phase, to survey the industry, select candidates for privatisation and document Bulgarian privatisation legislation, and a second phase, to process privatisation of up to three companies to the extent permitted by project budget.

As of February 1994, an extensive and ongoing international publicity campaign has generated considerable interest from contacts in Western Europe, the United States and Japan, with good prospects that these may lead to privatisation and/or joint ventures.

- ◆ To date four companies have arranged visits to Bulgaria, including one by the General Manager of the magnetic media division of Sony Japan, and more visits are in the pipeline. One UK firm (PRT Group) is actively pursuing acquisition of Electrostart in Varshetz. Many Western companies have written looking for commercial relationships with Bulgarian companies.
- ◆ Five Bulgarian electronics companies have been advertised in the world's leading business and technical journals, raising the international profile of Bulgaria. Details of the companies have been sent to over 300 selected firms in the United States, Western Europe and Japan, and over 160 enquiries have been generated.

The project has also resulted in significant peripheral benefits with the potential to contribute to further development in electronics and other sectors.

- ◆ Western consultants have worked closely with Bulgarian nationals in

carrying out the survey of the industry and in researching Information Memoranda on firms shortlisted for privatisation, with considerable skills transfer.

- ◆ A thorough Inventory of the electronics industry has been researched and published in Bulgarian and English. Additional copies of the Inventory have since been supplied at the request of the Ministry of Industry, to Ministry sub-committees charged with other projects within the electronics sector.
- ◆ A computer database and listing of potential Western and Japanese partners for the five companies has been developed and is available in Sofia.
- ◆ As a pilot, the project has been a pathfinder in cooperation between the Ministry of Industry, Privatisation Agency and consultants, and has provided valuable pointers for working together in the future.

The objective of this final report is to provide an overview of the approach taken, the work done, results achieved and recommendations for further processing of this project, and similar projects in the future.

Accompanying this report, the Bulgarian Privatisation Agency and Ministry of Industry will receive:

- ◆ Files of ongoing correspondence resulting from mailshots and advertisements.
- ◆ A computer file of mailshot addresses for the five candidates for privatisation.
- ◆ Copies of Information Memoranda for the five shortlisted companies.

The intention is that the Privatisation Agency and Ministry should continue the process from this point onwards.

At this handover point it is reasonable to expect that the ongoing contacts may result in foreign investment in one or more of the target companies.

We strongly recommend that the Privatisation Agency and Ministry of Industry build on the lessons and experience gained in this project. Ministry staff, Privatisation Agency staff and technical and consultancy staff who participated are largely Bulgarian nationals and/or resident in Sofia. The approach to both phases of the project is transferable to other firms within electronics and to other industrial sectors.

We acknowledge the assistance of the staff of the Ministry of Industry and the Privatisation Agency in carrying through this project. We are also grateful to USAID field officers in Sofia for their support.

SECTION 2

BACKGROUND

The Bulgarian economy is suffering the strains of rapid transition from central planning to a market economy. Industrial output has declined by over 35% since 1990 and unemployment has risen to 17%. Inflation has been severe, but has lessened in 1993 and is forecast to reduce further in 1994. Bulgarian trade and industry has been affected by the imposition of UN sanctions on the former Yugoslavia which has cut off its main overland trade routes with the EC.

A moratorium on Government debt repayment slowed Western investment so that Bulgaria lags behind Poland, Hungary and the Czech Republic in this regard.

Privatisation to date has mainly been from the ground up, through acquisition by individuals of shops and small businesses. In 1993 the first large company, Corn Products Limited, was acquired by a Belgian firm. Whilst progress in privatisation has been slow, many joint ventures have started up with mainly Greek, Italian, German, Turkish and Middle Eastern partners (National Statistics Institute).

Privatisation legislation introduced in April 1992 splits responsibility between the Privatisation Agency, specifically charged with privatisation, and the various Ministries as owners of companies.

The privatisation process under the 1992 law is formal and lengthy, and does not encourage quick deals. The Privatisation Agency has little executive power, and the various Ministries have little inducement to hand over privatisation of their successful firms.

There are positive factors. The Government has recently approved a measure to transform company loans taken out up to 1990 to Government Bonds with a

maturity of 25 years, intended to relieve the crippling debt burden which affects most of Bulgarian industry.

Bulgaria signed a free trade agreement with EFTA, and an association agreement with the EU in March 1993. These should lead to increased foreign trade, as would a cessation of hostilities in the former Yugoslavia.

The Bulgarian Government is presently considering a mass privatisation approach, which is likely to be more streamlined and easier to follow for foreign investors.

SECTION 3

ROLES OF MINISTRY OF INDUSTRY AND PRIVATISATION AGENCY

The law on transformation and privatisation of State-owned and Municipal Enterprises was adopted by Parliament in April 1992. This established the Privatisation Agency with general responsibility to privatise state firms and property. A year later the Privatisation Agency had grown to 260 staff.

The Ministry of Industry is the legal owner of most manufacturing industry in Bulgaria apart from Defence. The Ministry also wishes to be included in the privatisation process and has formed a separate privatisation department.

The 1992 law laid down that the Privatisation Agency would be responsible for the privatisation of concerns with a valuation greater than BL10m, about US\$357,000, and the Ministry of Industry would be responsible for the privatisation of concerns with a valuation under BL10m. Thus, the Project Team found it necessary to deal at all times with two state bodies, a situation which was not anticipated in the Terms of Reference or Workplan.

As owner of the firms, the Ministry has strong links with company managers, many of whom serve at different stages in their career within the Ministry and within manufacturing plants and R&D institutes. The Privatisation Agency is new and does not have the advantage of strong links with industry. To carry out its remit within the electronics sector it requires the co-operation of the Ministry of Industry, as the Agency has little executive authority.

On this project the Ministry stipulated that in selecting three firms for privatisation, one at least should fall under the US\$357,000 valuation limit so that Ministry staff could be involved in the privatisation process. This constraint resulted in the inclusion of the small connector plant, STS which would not have been selected on purely commercial criteria. To offset this, the number of companies to be promoted was increased from three to five, to offer a wider range of products to potential investors.

The split of privatisation responsibilities between the Ministry and the Privatisation Agency has disadvantages in that it dilutes privatisation expertise and may introduce other than strict commercial factors into the privatisation process, reducing the chances of success. It meant that all meetings involved three parties (Ministry, PA and contractors) and decisions required approval from both Government institutions.

Having commented on disadvantages of the present arrangement, we are by no means implying criticism of the officials working within the structure who were cooperative and enthusiastic.

SECTION 4
PROJECT CHRONOLOGY

November - December 1992

- ◆ Meetings with Ministry of Industry and Privatisation Agency to agree the scope and format of a survey of the electronics sector.
- ◆ The Ministry of Industry provided a covering letter to be mailed with the survey questionnaires on December 15th.
- ◆ Local electronics engineering contractors, Microtechnica, were selected to assist in the survey.

January - February 1993

- ◆ Work started on a description of the legal and regulatory framework for privatisation.
- ◆ Most electronic firms were visited by Deloitte & Touche and/or Microtechnica staff.
- ◆ Survey questionnaires began to be returned. Many needed telephone clarification.
- ◆ A computer database structure was developed to hold questionnaire returns.

March 1993

- ◆ The candidates for privatisation were shortlisted from c. 100 firms to three primary and two backup firms.

- ◆ Work continued on questionnaires and visits.

April 1993

- ◆ The general approach to privatisation of the selected firms was agreed and Ministry Approval was sought.
- ◆ The survey results (questionnaires and visit reports) were compiled into report form and translated to English and Bulgarian.
- ◆ The draft description of laws affecting privatisation was completed.

May - June 1993

- ◆ Phase 1 outputs were issued in Bulgarian and English.
- ◆ Combined teams of finance and engineering specialists with local support visited the three primary candidates to compile Information Memoranda.
- ◆ Work began in Dublin on building a marketing database of potential investors in Western Europe, the USA and Japan.

July - August 1993

- ◆ The approach to privatisation, and the content and format of Information Memoranda for the primary candidates was agreed with the Ministry and Agency.
- ◆ At the end of August the Ministry gave formal permission to market the companies.
- ◆ Work began on Information Memoranda for the two back-up companies.

September 1993

- ◆ Mailshots were sent to companies in Western Europe, North America and Japan.
- ◆ Advertisements were placed in the Financial Times, The Wall Street Journal, Business Week, The Economist, Electronic Product News, Spectrum USA and Nikkai Electronics Japan.

October 1993 Onwards

- ◆ Processing of responses to mailshots and advertisements including correspondence, requests for product information and samples, arrangements and assistance with visits.

SECTION 5
PHASE 1 - SURVEY AND SELECTION

5.1 Survey

- **Methodology**

The Workplan called for a fully-developed inventory of the electronics industry under consideration by the Ministry, to be accomplished in part by designing and issuing a questionnaire to all firms in the sector.

In a series of meetings with Ministry of Industry and Privatisation Agency officials through November and December, considerable time was devoted to three topics.

- (a) **Content of the Questionnaire**

The main concern was to take out questions which would be difficult to answer usefully at the current stage of transition of the electronics industry in Bulgaria. Although new accounting regulations were being introduced, nevertheless reliable figures for revenues and costs by product were often difficult to obtain. The collapse of traditional markets, high inflation and decline in the value of the currency made year on year comparisons difficult. Marketing and R&D had traditionally been performed by outside agencies, which had virtually ceased to function but had not been replaced by in-house departments in most firms, and managers often found it difficult to provide information on these topics.

The layout of the final agreed version of the questionnaire is shown in Appendix 1.

(b) **Covering letter from the Ministry**

Bulgarian managers have been asked to participate in many surveys in recent years and not unnaturally are becoming resistant. It was thus felt to be essential to send out a covering letter with the authority of the Ministry of Industry requesting managers to complete and return the questionnaire. This was provided to the consultants on December 15th, copied and addressed to all companies, then returned to the Ministry for all copies to be stamped as originals. It was sent out with the questionnaire on 18th December.

The Bulgarian financial year finishes on 31st December and company accounts staff are busy preparing financial returns in January and February. The Ministry therefore set February 28th as the deadline for managers to return completed questionnaires.

(c) **Visits to Companies**

The workplan called for assistance where required to firms which had difficulty in completing the questionnaire in order to maximise the response rate. The sample of firms to be visited by consultants was discussed. In the end the Ministry stipulated that all firms should be visited by consultants.

• **Visit Procedure**

90 firms of over 100 which were identified by the Ministry of Industry as comprising the Electronics sector, were visited by consultants. Those firms identified as being most important, about half of the total, were visited by Western Consultants. The remainder were visited by engineers from the Sofia electronics consultancy Microtechnica, who had been hired by competitive tender as subcontractors to the project. This outline was generally adhered to, but was modified when logistics and/or schedules warranted.

Electronics firms are mainly located in the western half of Bulgaria, with two exceptions, Orgtechnica in Silistra on the Danube which makes cash registers, and Rezistori OOD in Aitos near the Black Sea which makes resistors. The schedule of visits called for extensive travel and was largely completed by end February.

Visits including travel tended to take half a day, beginning with introductions and general discussions of trading conditions. This was followed by a plant tour and clarification of any difficulties the company experienced with the questionnaire. During the visits notes were taken and a checklist was completed, see Figure 1. From both of these, short one to two page descriptions of firms were written up. These "snapshots" were published in the Survey Report and usefully augment the more formal questionnaire returns.

Indicative of the difficult economic conditions which prevail in the sector during January many firms closed down as the cost of heating to stay in operation would outweigh revenues. An unusually cold spell in the first week of January (-18°C) caused four survey companies to be put out of action with plumbing and heating problems.

- **Processing of Questionnaires**

The technical sections of the questionnaire dealing with products, processes and contribution of R&D, caused little or no difficulty. Accounting and marketing did require explanation in many cases. The processing of questionnaires included progress chasing and clarification by telephone, the latter chiefly on points of definition of accounting procedures. In chasing late returns we received considerable assistance from the Ministry of Industry and from Microtechnica personnel.

Deloitte & Touche Bulgarian Electronics Industry

VISIT CHECKLIST

PLEASE CONSULT THE SCORING SHEET FOR GUIDELINES ON HOW TO SCORE THESE POINTS

Company Name: _____ D&T Ref. No. _____

1 TECHNICAL CRITERIA

	<u>SCORE</u>	<u>REASON</u>
1.1 To what extent is the company's sector desirable for privatisation?	_____	_____ _____
1.2 How suitable are the buildings and grounds for their current use?	_____	_____ _____
1.3 How easily can the current production processes and facilities be adapted to produce more modern and / or different products?	_____	_____ _____ _____
1.4 Rate the relevance of current product's technology to modern technology standards.	_____	_____ _____
1.5 Rate the relevance of the technology of current production equipment to modern standards.	_____	_____ _____
1.6 To what extent does the current level of production compare with 1989 levels?	_____	_____ _____
1.7 Rate the current level of automation.	_____	_____ _____
1.8 To what extent is quality control being carried out?	_____	_____ _____

2 FINANCIAL CRITERIA

2.1 How competitive is the company in International markets?	_____	_____ _____
2.2 What market is the company operating in?	_____	_____ _____

Total Score: out of
 Percentage:

Prepared by: _____

Date: ___/___/9__

Reviewed by: _____

Date: ___/___/9__

Questionnaires as they came in were loaded onto a DBase III database. The database and non-proprietary enquiry software are available to the Ministry and Privatisation Agency and are currently held in the Deloitte & Touche Sofia office.

In the end 74 firms, representing about 87% of employment in the electronics sector, returned questionnaires.

5.2 SELECTION OF FIRMS FOR PRIVATISATION

Prioritisation

The survey of the electronics sector had two objectives, the first of which was to provide an up-to-date inventory of the sector which would indicate the extent of changes in recent years. We are satisfied that the inventory and database of information built up from questionnaires and site visits form the most comprehensive and useful study of the state of electronics in Bulgaria which has been produced to date. Indeed additional copies have been supplied at the request of the Ministry of Industry, for the use of newly established committees charged with restructuring the sector.

The major objective of the survey was to provide a quantitative and qualitative basis for selection of three candidates from about 100 firms comprising the sector and to do this in a reasonable timescale. The other input to the selection process was comparison with the international electronics industry, particularly in terms of growing, stable and declining sectors, stable or fast-changing technologies, and levels of competition on the basis of previous work by the consultants. For the selected companies, this comparison is shown in detail in the Phase 1 Report "Privatisation of Selected Firms".

The first step in prioritising firms was a scoring system which combined input from these sources. For the information available from the survey, the approach is illustrated in Figure 2, "Explanation of Scoring System". The criteria which were given most weight were technical (products and processes) and sales and marketing. As almost all companies in Bulgaria have large debt burdens, application of orthodox western financial criteria would have eliminated most of the sector. Solution of the debt problem by the Bulgarian Government is recognised to be a sine qua non for privatisation.

Deloitte & Touche Bulgarian Electronics Industry

EXPLANATION OF SCORING SYSTEM

1 TECHNICAL CRITERIA

- 1.1 The suitability of the premises for their current use can be judged by the age of the building, its condition and whether it has specialised facilities which make it especially desirable.

Age:	>20 years	1
	10-19 years	2
	5-9 years	3
	0-5 years	4
	State of the art	5

Other: Deduct 1 or 2 marks for poor condition
Add 1 mark if it is particularly suited to its current use. Eg. New Cleanrooms.

- 1.2 Flexibility and adaptability of production processes and facilities requires professional judgement.

The following guidelines are offered:

Single Product / Dedicated production line / Inflexible work practices	1
Multi product / Flexible production line / Well trained flexible workforce	5

- 1.3 The relevance of the product's technology is rated against the current technology to get a comparable score eg. for integrated circuit manufacturers and domestic electrical goods.

This will require professional judgement and the following guidelines are suggested.

Age:	>10 years	1
	6-9 years	2
	3-5 years	3
	0-2 years	4
	State of the art	5

- 1.4 This should be scored on the same way as point 1.4.

- 1.5 The level of production should be scored on the basis of activity and if comparable measured in units.

The following measures are thought to be suitable, see question 2.2 on the questionnaire.

No production currently taking place	0
Current production at 0-10% of 1989 levels.	1
Current production at 11-30% of 1989 levels.	2
Current production at 31-50% of 1989 levels.	3
Current production at 51-70% of 1989 levels.	4
Current production greater than 70% of 1989 levels.	5

15a

USAID

April 1993

- 1.6 The level of automation should be assessed broadly on the basis of the percentage of the production process which has been automated.

Only manual processes in operation.	0
Production line up to 20% automated	1
Production line up to 40% automated	2
Production line up to 60% automated	3
Production line up to 80% automated	4
Production line fully automated with minimal supervision	5

- 1.7 The extent to which quality control is being carried out can be assessed as follows, see Q 2.9:

None	0
Some	1 or 2
Reasonable	3
Internationally Recognised Standard applied for or being pursued	4
Quality Control certified by International Organisation	5

2 MARKETING CRITERIA

- 2.1 The following guidelines are suggested as appropriate in scoring International competitiveness:
See Questions 2.3 and 5.4

No Exports	0
Previous C.I.S. exports now discontinued	1
Good C.I.S. contacts / C.I.S. exports maintained at a reasonable level	2
Good non C.I.S. contacts / Some non C.I.S. exports (<10% of turnover) and a good level of C.I.S. exports maintained or expanded.	3
10-50% of turnover exported to Non C.I.S. countries and foreign investors interested in privatising the company	4
Over 50% of turnover exported to non C.I.S. countries.	5

By Non C.I.S. countries is meant countries other than those that were part of the Ex. U.S.S.R. or CMEA.

- 2.2 This question seeks to establish the future of the companies current markets and to highlight companies which are competing well in their current markets.

Company is in a stagnant market or no longer in production	0
Company cannot compete on cost	1
Medium volume / Low cost / Low quality	2
Average	3
High volume / Low cost and margin / Med. quality eg. Commodity Goods	4
Low volume / High value added / High quality	5

3 OTHER CRITERIA

- 3.1 Suitability of the company for privatisation can be assessed in relation to the complexity of the company, its legal structure, whether it is operating in the electronics industry and other factors. (0 = Unsuitable, 3 = Needs Restructuring, 5 = Suitable, already in the process of privatising itself). This should be scored only with the USAID project in mind and not the company's suitability under other projects.

Based on the scoring system, companies were either not rated (eg. because they had diversified out of electronics or information was unavailable) or were rated under one of four classifications:

- "Suitable" - *Suitable for Privatisation, subject to debt resolution if applicable.*
- "Needs Restructuring" - *The company would not be an attractive investment prospect in its present form, but could be improved, eg. by selling off unrelated departments, reducing staff, developing R&D and marketing capability etc.*
- "Not Operating" - *Self Explanatory*
- "Realise Assets" - *It was considered that the company had no prospects of trading profitably.*

The resulting privatised list of companies showing type of firm, classification under the headings described above, and ranking in order of suitability for privatisation, is shown in Figure 3.

The Selection Process

During late February and early March 1993 a series of meetings were held with Ministry of Industry and PA staff to consider candidates based on the rankings thrown up by the "scoreboard" table, and on nominations put forward by the Ministry of Industry. This produced an initial list of 10 firms.

USAID

April 1993

PRIORITISED LIST OF COMPANIES

Ref. No.	Company Name	Type of Firm	Classification	Rank
1	Zavod za izchislitelna tehnika	Manufacturer	Needs Restructuring	82
2	Incoms-Elektronika	Manufacturer	Suitable	4
3	Programni produkti i sistemi	Manufacturer	Needs Restructuring	8
4	Mikroprocesorni sistemi AD	Manufacturer	Needs Restructuring	10
5	Incoms-S-mi za teleobrab. i mrezi	Manufacturer	Not Operating	90
6	Orgtehnika OOD	Manufacturer	Suitable	2
7	Diskovi Zapametyavashti Ustrojstva	Manufacturer	Needs Restructuring	16
8	Periferna Tehnika	Manufacturer	Needs Restructuring	22
9	Pisheshta i oragniz. tehnika	Not in Electronics	Suitable	17
10	Elektr. i magn. produkti OOD	Manufacturer	Needs Restructuring	14
11	Tehnol-proizw.inst.perif.org.t-ka	Research Institute	Realise Assets	80
12	DF Print - As	Manufacturer	Realise Assets	76
13	Mehanichni i elektr. izdelia MEI	Manufacturer	Realise Assets	77
14	Guuvkavi magnetni diskove GMD OOD	Manufacturer	Not Operating	86
15	Informacionni nositeli AD	Manufacturer	Suitable	5
16	Sokol	Manufacturer	Needs Restructuring	87
17	CIITT OOD	Research Institute	Needs Restructuring	72
18	IPAKT OOD	Research Institute	Needs Restructuring	41
19	Izotserviz AD	Service Company	Needs Restructuring	42
20	Centar informac. osiguryavane EOOD	Service Company		58
21	Nomat	Not in Electronics		91
22	Informacionno obsluzhvane AD	Service Company	Needs Restructuring	43
23	Sistemizot OOD	Service Company	Needs Restructuring	32
24	Incoms-Dalekosaobsht. tehnika OOD	Manufacturer	Needs Restructuring	92
25	Incoms-Elektr.saobsht.tehnika OOD	Manufacturer	Needs Restructuring	44
26	Incoms I-t saobsht.promishlenost AD	Research Institute	Needs Restructuring	59
27	Incoms I-t radioelektr. i tehnol.	Research Institute	Needs Restructuring	73
28	Mikroelektronika AD (Botevgrad)	Manufacturer	Needs Restructuring	11
29	Mikroelektronika IME OOD	Research Institute	Needs Restructuring	25
30	Senzorna elektronika ZSSU OOD	Manufacturer	Needs Restructuring	23
31	Pribor	Manufacturer	Needs Restructuring	74
32	Interkvartz AD	Manufacturer	Suitable	9
33	ED Unitraf OOD	Manufacturer	Needs Restructuring	51
34	Konis OOD	Manufacturer	Needs Restructuring	15
35	Rezistori OOD	Manufacturer	Realise Assets	83
36	K E T OOD	Manufacturer	Needs Restructuring	28
37	E M E OOD	Manufacturer	Needs Restructuring	47
38	S T S OOD (Devin)	Manufacturer	Suitable	12
39	P A S OOD	Manufacturer	Needs Restructuring	18
40	E M P I OOD	Inadequate Data		93
41	Inkoms - Kontaktni elementi OOD	Not in Electronics		94
42	Inkoms - Tokoizpraviteli AD	Manufacturer	Needs Restructuring	60
43	Pchatni platki PP OOD	Manufacturer		95
44	Elektronni izdelia ZEI OOD	Manufacturer		96
45	Mikrodivigateli OOD	Manufacturer	Not Operating	97
46	Inkoms - Vuzli i detajli OOD	Not in Electronics		98
47	Inkoms S-mi i elektr. tehnika AD	Manufacturer	Needs Restructuring	13
48	Elektronika OOD	Manufacturer	Realise Assets	81
49	Elprom - P	Manufacturer	Needs Restructuring	63
50	Galvaniplast OOD	Not in Electronics	Needs Restructuring	40

PRIORITISED LIST OF COMPANIES

D&T Ref. No.	Company Name	Type of Firm	Classification	Rank
51	Feromagnit	Manufacturer	Suitable	1
52	KOMEL '92 OOD	Research Institute	Realise Assets	75
53	T I K E OOD	Research Institute	Needs Restructuring	55
54	Inkoms-Gradivni elementi OOD	Manufacturer	Needs Restructuring	34
55	Kontaktni elementi OOD	Manufacturer	Needs Restructuring	35
56	Microprocesorni Ustroistva EOOD	Manufacturer	Needs Restructuring	36
57	Briz OOD	Manufacturer	Realise Assets	78
58	Balans	Not in Electronics	Suitable	24
59	Algara OOD	Manufacturer	Not Operating	84
60	ETD Analitik OOD	Manufacturer	Needs Restructuring	45
61	Bitova Elektronika AD	Manufacturer	Needs Restructuring	49
62	Inkoms - Bitova tehnika OOD	Manufacturer	Needs Restructuring	71
63	Inkoms - Elektroakustika OOD	Manufacturer	Needs Restructuring	21
64	Visokogovoriteli OOD	Manufacturer	Needs Restructuring	61
65	K O M OOD	Manufacturer	Realise Assets	52
66	Akustichna tehnika OOD	Manufacturer	Suitable	6
67	Mirta	Inadequate Data		88
68	Svetlina	Manufacturer	Needs Restructuring	19
69	Elektrostart	Manufacturer	Suitable	3
70	Svetlina OOD	Manufacturer	Needs Restructuring	70
71	Vereya OOD	Not in Electronics		66
72	Unibit OOD	Inadequate Data		99
73	Instrumenti i izdelia OOD	Not in Electronics		33
74	Tehnologichno oporudvane ZTO OOD	Not in Electronics	Not Operating	89
75	Inkoms-Instr.ekipirovka i nest.o-ne	Not in Electronics		67
76	Inkoms-Instrum. i mehanika OOD	Not in Electronics		64
77	Inkoms-Elekt. i mehanika	Not in Electronics		29
78	Inkoms-Instr.ekipir. i nestand. o-ne	Not in Electronics	Not Operating	100
79	Mehatronika OOD	Manufacturer	Suitable	7
80	ZINO - P OOD	Not in Electronics	Suitable	20
81	Progres - P OOD	Not in Electronics	Realise Assets	79
82	DF IZOMA	Manufacturer	Needs Restructuring	30
83	Himprodukt OOD	Not in Electronics		68
84	Tehnomags OOD	Not in Electronics		69
85	Elektroproekt-ingenering OOD	Service Company	Needs Restructuring	56
86	Inkoms-komplekt OOD	Service Company	Needs Restructuring	26
87	Sistemingenering OOD	Service Company	Needs Restructuring	85
88	Elektroinvest	Service Company	Needs Restructuring	46
89	Chisti klimatichni pomeshteniya OOD	Not in Electronics		62
90	INCOMS Telecom Holding ITH AD u	Holding Company	Needs Restructuring	101
91	Incoms - Mehanichni konstrukcii	Manufacturer	Needs Restructuring	37
92	INCOMS - Pечатni Platki OOD	Manufacturer	Needs Restructuring	31
93	Tehnoinvest	Service Company	Needs Restructuring	48
101	ITH - Centar za podg. na kadri AD	Service Company	Needs Restructuring	
102	ITH - Zavod za telef. teleg. t-ka	Manufacturer	Needs Restructuring	57
103	Zavod za upltn. telef. s-mi AD	Manufacturer	Needs Restructuring	38
104	ITH - Zavod za saobsht. tehnika AD	Manufacturer	Needs Restructuring	53
105	ITH - Z-d za tel. aparati i s-mi	Manufacturer	Needs Restructuring	27
106	ITH - Z-d za telef. aparatura AD	Manufacturer	Needs Restructuring	39
107	ITH - Z-d radiorel. aparatura AD	Manufacturer	Needs Restructuring	54
108	ITH - Z-d za telef. elementi AD	Manufacturer	Not Operating	65
109	ITH - Z-d za slabotokovi relea AD	Manufacturer	Needs Restructuring	50

At a meeting on 12th March the ten were reduced to six. One of these, Mehatronika in Gabrovo, was subsequently eliminated on the advice of the Privatisation Agency due to serious restitution problems (claims by previous owners or their heirs or successors which meant that ownership was in dispute). A simple yes/no matrix, see Figure 4, was used to assist in arriving at a decision.

On 16th March by mutual agreement the firms were divided into three primary and two fall-back firms, based on technical, financial and marketing information available from the survey, from the Ministry and from Microtechnica, and from input on international markets and trends supplied by the consultants.

Shortlisted Firms

The primary firms are (name and town):

- ◆ Orgtehnika, Silistra which makes cash registers, calculators and taximeters.
- ◆ Feromagnit, Pernik which makes magnets.
- ◆ STS, Devin, which makes connectors and did make microswitches.

The fall-back firms were initially selected in case a primary firm had to be withdrawn for any reason. They are:

- ◆ Magnetic Media (ZIN), Pazardjit, which makes 3½" diskettes and video and audio tapes.
- ◆ Electrostart, Varshetz, which makes ballasts for fluorescent lighting.

In selecting the primary and fall-back firms, several factors were considered in addition to technical/marketing and financial considerations.

BULGARIAN ELECTRONICS INDUSTRY ATTRIBUTES OF SHORTLIST CANDIDATES

<u>COMPANY NUMBER</u>	1	2	3	4	5	6	7	8	9	10
MARKETABLE PRODUCT	Y	Y	N	N	Y	Y	Y	Y	N	Y
APPROPRIATE TECHNOLOGY	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
QUALIFIED STAFF	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
ATTRACTIVE TO FOREIGN INVESTORS	Y	Y	N	N	N	Y	Y	Y	N	Y
NO RESTITUTION PROBLEMS	Y	Y	Y	N	Y	Y	Y	N	Y	Y
NO SIGNIFICANT DEBTS	N	N	N	Y	Y	N	Y	N	N	Y
<u>SCORE</u>	5	5	3	2	5	5	6	4	2	6
BRANCH / NATIONAL IMPORTANCE	Y	Y	Y	Y	N	Y	Y	Y	Y	N
VALUATION > BGL 10m	Y	Y	Y	N	N	Y	N	Y	N	N

- 1 ORGTECHNICA, SILISTRA: D&T REF. 6
- 2 MAGNETIC MEDIA, PAZARDJIK: D&T REF. 15
- 3 MICROELECTRONIKA, BOTEVGRAD: D&T REF. 28
- 4 KONIS, KUSTENDIL: D&T REF. 34
- 5 STS, DEVIN: D&T REF. 38
- 6 FEROMAGNIT, PERNIK: D&T REF. 51
- 7 ELECTROSTART, VARSHETZ: D&T REF. 69
- 8 MEHATRONIKA, GABROVO: D&T REF. 79
- 9 IPAKT, SOFIA: D&T REF. 18
- 10 AKUSTICHNA TEHNIKA, SOFIA: D&T REF. 66

- ◆ The final selection was influenced by the Ministry of Industry perception of which pilot privatisation would have most relevance and benefit for qualified personnel in leading technologies. This caused Magnetic Media (ZIN) and Electrostart to be moved to fall-back positions although they were ahead on purely commercial criteria (revenues and foreign currency earnings).
- ◆ As referred to in 3 above, the Ministry of Industry required that at least one candidate should have a valuation under ten million leva. This was an important factor in selecting STS for inclusion in the three primary firms.

Detailed Technical and Marketing Appraisal of Shortlisted Firms

Following agreement of the shortlist, more detailed technical and financial appraisals were carried out, based on survey returns and on product literature where this was provided. The rankings were assessed on the following technical factors, and are heavily dependent on the accuracy of questionnaire returns;

- ◆ Portfolio strength. An evaluation of the number and range of products produced by a company.
- ◆ Export Performance. Scores were assigned based on the level of exports, particularly to hard-currency workers.
- ◆ Technology Level, including international comparisons.
- ◆ International standards compliance.

(The ranking process is described in more detail in the Phase 1 report "Privatisation of Selected Firms" which covers technical, marketing and financial appraisal and recommended privatisation method.)

Technical / Marketing League Table

<u>Position</u>	<u>Company</u>	<u>Total</u>	
1	Magnetic Media	32.1	Fall-back
2	Electrostart	30.5	Fall-back
3	Orgtehnika	21.6	Primary
4	Feromagnit	21.5	Primary
5	STS	15.6	Primary

Based on the league table shown above, it was decided within the limits set by budgetary considerations, to market all five companies, whereas the terms of reference called at most three companies to be promoted for privatisation. It was felt that by offering a wider range of company and product types, the likelihood of attracting a foreign investor would be increased.

Financial Appraisal

The initial financial appraisal indicated serious levels of debt in all companies except STS.

The companies have experienced significant changes in their markets in recent years. The financial data indicated major falls in domestic and CMEA markets, with some indications, particularly in Magnetic Media and Electrostart of developing hard currency markets. The financial data as received from the survey is shown in Figure 5.

FINANCIAL DATA RECEIVED FROM SHORTLISTED FIRMS

D&T Ref. Company Name Town	6 ORGTEINIKA SILISTRA		15 MAGNETIC MEDIA (ZIN) PAZDARJIK		38 STS DEVIN		51 FEROMAGNIT PERNIK		69 ELECTROSTART VARSHETZ	
Year	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992
SALES (Leva)										
Bulgaria	81,740,000	33,399,000	90,915,000	67,366,000	16,416,000	4,252,000	23,330,000	6,881,000	2,000,000	18,000,000
CMEA	37,140,000	21,536,000	91,531,000	2,345,000	0	766,000	0	12,052,000	0	0
Western Europe	0	0	6,388,000	187,327,000	0	0	516,000	3,786,000	1,000,000	2,100,000
Other	0	0	0	0	0	0	411,000	465,000	17,000,000	63,900,000
Total	118,880,000	54,935,000	188,834,000	257,088,000	16,416,000	5,018,000	24,257,000	23,184,000	20,000,000	84,000,000
% of Domestic Sales made to State Enterprises	100	24	48	26	100	63	100	23	100	68
% of Export Sales made by an Affiliate Company	100	73	43	74	0	0	4	3	100	100
Own Company	0	27	9	0	0	15	0	87	0	0
% of Raw Materials Sourced in:										
Bulgaria	46	55	10	11	55	84	30	22	38	37
CMEA	26	12	30	2	10	0	32	77	0	19
Europe	24	28	35	47	35	16	12	1	62	44
America	1	1	25	40	0	0	0	0	0	0
Other	3	4	0	0	0	0	26	0	0	0
Net Book Value of Fixed Assets (Leva) (The 1992 value is after revaluation)	54,128,000	231,609,000	Unanswered	Unanswered	12,832,000	132,009,000	46,596,000	221,784,000	15,917,000	Revaluation of Leva 150 m Expected
Debt	No Data	Leva 100 m	No Data	\$ 20 m	No Data	nil	No Data	Leva 27 m	No Data	DM 820 k
Employee Numbers	2,774	1,235	2,537	1,781	631	205	914	485	340	320

1992

USAID

April 1993

TABLE 1

5.3 PHASE 1 - DELIVERABLES

The output from Phase 1 was delivered to US AID Washington and Sofia on 3rd May 1993, and included the following reports in English; Bulgarian translations were supplied to the Privatisation Agency and to the Ministry of Industry.

- "A Review of Bulgarian Legislation on Privatisation". A general description and discussion of the legislation as at mid 1993.
- "Privatisation of Selected Firms". This report covers the approach and the constraints which applied to the selection of the three primary and two fall-back candidates. Technical, financial and marketing features are discussed and the report recommends the method for privatisation.
- The Inventory of the Electronics Sector; this is in three volumes;

The first gives the overall impression of the Industry. It lists firms in order of suitability for privatisation and explains the scoring system which was used. Finally it gives brief descriptions ("snapshots") of the firms visited by Western and Bulgarian consultants.

Volumes 2 and 3 contain the 74 questionnaires returned from over 100 sent out.

SECTION 6
PHASE 2 - SEARCH FOR INVESTORS

6.1 The Process

Figure 6 illustrates the privatisation process and is based on a sketch agreed with the Ministry and PA in April. The shaded portion represents the activities which are still to be done.

Consultancy activities concentrated on preparing Information Memoranda for the five shortlisted companies, bringing them to the attention of potential investors through advertising and through selective mail shots, and processing the resulting contacts.

Information Memoranda

Beginning in May, combined teams of Western and local consultants with representatives from the Ministry and the PA visited each primary company for one to two weeks, researching the material needed to compile Information Memoranda. These are booklets which describe each company in some detail in terms of Business Description, Products, Production / Process facilities, Sales and Markets, Organisation and Management, Financial Information and key features.

Appendices in the Information Memoranda promote Bulgaria generally under the headings:

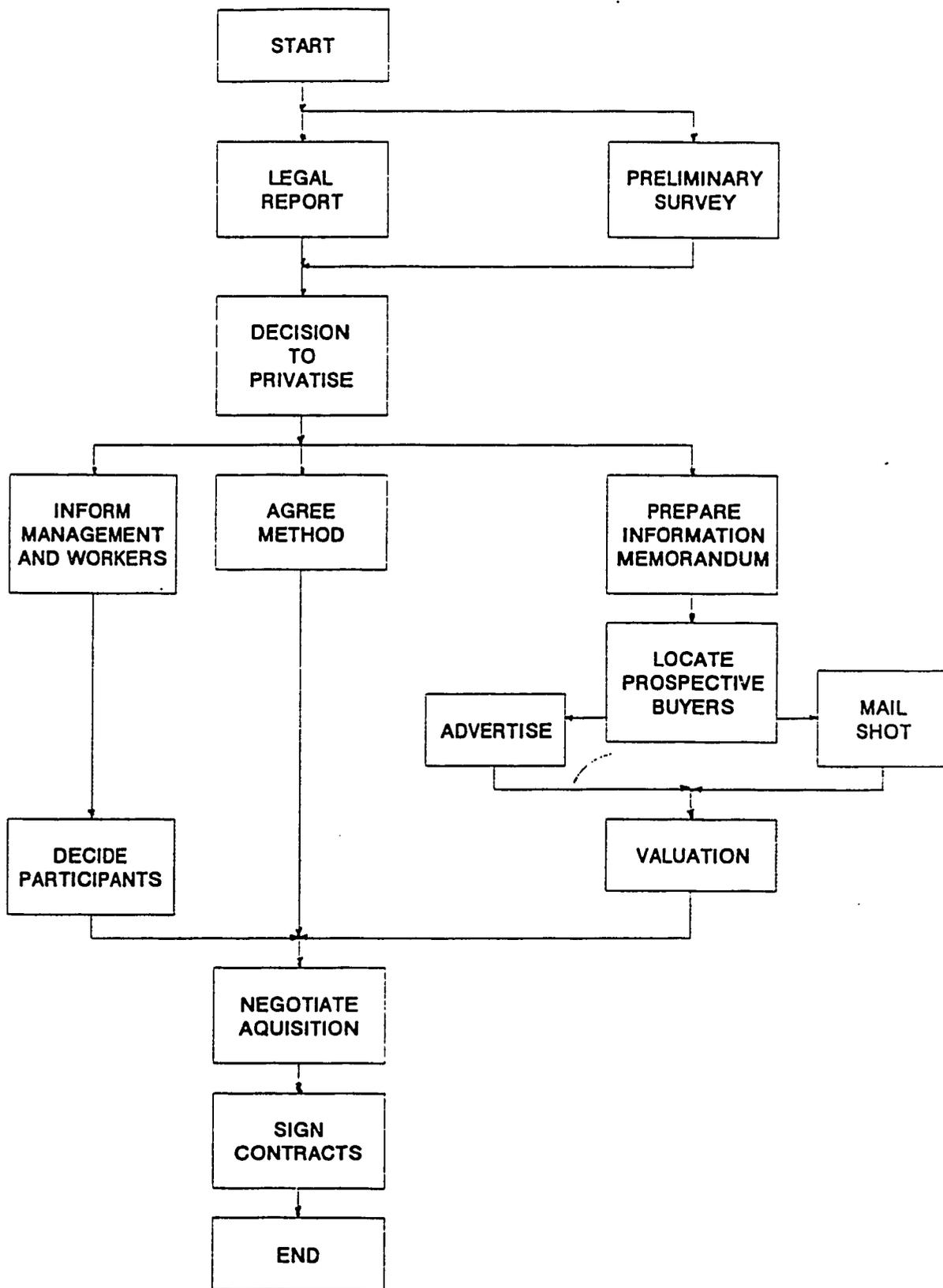
"Bulgarian : Open for Business and Investment"

and

"Bulgaria Electronics Industry"

The preparation of the Information Memoranda was repeated with local consultants in August/September for the two fall-back companies.

USAID: BULGARIAN ELECTRONICS PRIVATISATION. WORKPLAN FOR PHASE II



2/a

Mailshots

Information on companies in Western Europe, North America and Japan was extracted from commercial directories to build up a database of possible investment partners. The companies were selected based on three criteria:

- Product. They manufactured cash registers/calculators, magnets, computer diskettes, lighting ballasts or connectors.
- They had turnover exceeding US\$1M.
- They had more than 100 employees.

Turnover and employee criteria varied depending on numbers of firms in particular sectors and countries.

The Kompas Directory was used for European firms.

The Standard Trade Directory Index of Japan and the JETRO (Japanese External Trade Organisation) Report was used for Japan.

The Thomas Directory was used for North America.

Numbers and types of companies input to the mailshot database are shown in the following matrix:

Product	Cash	Magnets	Diskettes	Ballasts	Connect's	Totals
Location	Reg.					
N. America	28	39	15	55	64	201
W. Europe	39	55	10	39	28	171
Japan	13	36	17	10	14	90
Other /Far East			7			7
Totals	80	130	49	104	106	469

Each mailshot included a covering letter in German, French, English or Japanese, and an Information Memorandum.

Mailshots were sent to prospects for the three primary companies (Orgtehnika, Feromagnit and STS) in September and follow-up letters were sent to any firms which had not replied by a month later.

Mailshots were sent out to the fall-back firms in October (Electrostart and Magnetic Media).

Advertising

One advertisement was used in all media, varied in size and shape to suit different magazine and journal formats. An example from the Financial Times is shown in Figure 8.

Advertisements were placed in the following media during September - October.

1. IEEE Spectrum, the magazine of the Institute of Electrical and Electronic Engineers, mainly circulating in the USA, Canada and Mexico - circulation 320,000.
2. Electronic Product News, Japan. Circulation of 58,000 among buyers of electronics products in Europe.
3. Nikkei Electronics, Japan. Circulation of 51,000. Recommended by the Japanese External Trade Organisation.
4. The Wall Street Journal. Circulation of 1.8m in USA, 56,000 in Europe and 42,000 in Asia.
5. The Financial Times. Circulation of 1 million plus in the UK and worldwide.
6. The Economist. Circulation of 534,000 worldwide.
7. Business Week, to coincide with a feature article on Eastern Europe.

BULGARIA
PRIVATISATION PROGRAMME

OPPORTUNITIES IN ELECTRONICS

Companies manufacturing the following products seek partners; investors as part of their development strategy:

- Ferrite cores and magnets
- Cash Registers
- Connectors and microswitches
- 3.5" Diskettes
- Ballasts for Fluorescent lights

For more information please contact:

David O'Flanagan or
Garry Owens
Deloitte & Touche
Earlsfort Terrace
Dublin 2, Ireland

Tel: +353-1-4754433
Fax: +353-1-4756622

**Deloitte Touche
Tohmatsu
International**

**Deloitte &
Touche**


R3a

6.2 REPLIES

Replies from the mailshot and advertising campaigns, excluding mailshot recipients who wrote to say they were not interested, exceeded 180. In follow-up correspondence, 60 firms who were supplied with information have subsequently written or faxed to say that they are not interested, leaving an Active File of 123 contacts.

The Active File includes correspondence with all contacts who have responded to mailshots or advertisements and who have not at this stage declared lack of interest. The following matrix shows the locations of the companies and responses by media.

It will be seen that most enquiries came from the UK (36), the USA (21), Italy (11) and Germany (10). The preponderance of replies from the UK and USA probably reflects that the advertisements apart from Nikkei Electronics Magazine which was in Japanese, were in English. Although mailshot covering letters were in English, French, German and Japanese, the Information Memoranda were in English only.

The advertisement which has produced most replies was that placed in Electronic Product News (EPN) which circulates to purchasers of electronic equipment in Europe. The responses from EPN do not indicate which firm the respondent is interested in, hence we have sent out Information Memoranda for all companies to each enquiry. In the following matrix, the large numbers of responses under the heading "all" are from EPN.

Numbers of Responses to
Advertisements and Mailshots,
by country.

	MAILSHOT	ECONOMIST	WALL ST. J'RNL	FIN. TIMES	EL. PROD. NEWS	NIKKEI ELEC.	BUS. WEEK	SPECTRUM	PERS. CONTACT	UNKNOWN	TOTALS
AUSTRIA	1			2							3
BELGIUM	1			2		1		1	1		6
FRANCE		1	1	1				2			5
FINLAND				2							2
GERMANY	2			7							9
GREECE				3							3
IRELAND			2					1			3
ISRAEL				4		1			1		6
ITALY	1			9					1		11
JAPAN	1				4						5
MEXICO						1	1				2
HOLLAND	1			2		1			1		5
NORWAY				2							2
SPAIN				7							7
UK	2	1	14	3					3		23
USA	4	3	7	1					4		19
OTHER		2	1	2	3	1	1		2		12
TOTALS	13	7	8	20	47	4	5	2	4	13	123

24/02

RESPONSES BY COUNTRY
AND TARGET FIRM (NOTE THAT
MANY RESPONSES RELATED TO
SEVERAL OR ALL TARGET
FIRMS.)

	ORGTECHNICA	FEROMAGNIT	STS	MAG. MEDIA	ELECTROSTART	ALL	TOTALS
AUSTRIA			1			2	3
BELGIUM		1		1		4	6
FRANCE		3	1			1	5
FINLAND						2	2
GERMANY		1		2	1	6	10
GREECE						3	3
IRELAND	1	3	1				5
ISRAEL				1	1	5	7
ITALY		1	1			9	11
JAPAN				1		4	5
MEXICO			1			1	2
HOLLAND					2	3	5
NORWAY			1			1	2
SPAIN				1		6	7
UK	7	6	7	3	9	4	36
USA	3	2	5	1	5	5	21
OTHER	1	2	1	1	2	8	15
TOTALS	12	19	19	11	20	64	145

usaid 2

Examining this matrix further and discounting the enquiries under the heading "all" it will be seen that in order of numbers of live enquiries to date the companies rank as follows:

Electrostart	20
STS	19
Feromagnit	19
Orgtechnica	12
Magnetic Media	11

6.3 IMPORTANT RESPONSES

The following list is of companies who have followed through their enquiries beyond merely asking for information in response to the advertising campaign. Some have visited, or intend to visit Bulgaria. Others have withdrawn but have given their reasons for doing so, and these are of interest.

- ◆ Sentinel N.V., Belgium : Mr. Tony Neven, General Director, is in discussion with Deloitte & Touche Sofia and wants to visit Magnetic Media company, Pazardjik. This is a live prospect.
- ◆ Arlec S.A. France : Mr. Peter Smith, Director General is interested in buying large quantities of magnets from Feromagnit. His request for samples was passed to the Privatisation Agency in October. This firm is not interested in privatisation in the first instance but Mr. Smith said that this could follow. Arelec is a magnet manufacturer and is part of the UK Cookson Group.

- ◆ Molex. The STS Information Memorandum was sent in mailshots to Molex offices in the USA and Japan, without response. We also sent a copy to M. Didier, head of Molex Eastern European Section, who has an office in Paris. A follow-up letter was sent on 25th January and we await a reply. (Molex is one of the world's largest connectors manufacturers.)
- ◆ Ugimag SA, France, is a leading magnet manufacturer. The Executive Vice President, M. Jean-Michel Escondeur, has requested information from Feromagnit over and above that contained in the information memorandum. He has plans to visit Feromagnit with two colleagues in the first week in April 1994.
- ◆ Mr. Harri Pukalainen of Pulalainen Electronics, Finland has asked for permission to contact the Manager of STS directly, which of course he is welcome to do. He seems to be interested in introducing new products in STS, but his interest may be in product purchase rather than privatisation.
- ◆ The Distribution Manager of Texas Instruments in Germany, Mr. Luigi Sommariva, wrote to say that they are not interested in Bulgarian firms at present but will get in touch later. This may be just politeness, nevertheless the connection should be kept alive, eg. by writing again in six months time.
- ◆ Mr Amit Nag, IFB Industries, Calcutta, asked for information following our advertisement in the Economist. His latest communication (14th Feb) seems to be a request for visas for two people to visit Bulgaria - to be treated with caution. Action by Privatisation Agency.

- ◆ Mr. Pat Buchanan, Vice President European Operations, Applied Magnetics Ltd, Ireland, phoned for information on Feromagnit and Magnetic Media. The firms was interested in either sourcing or joint venture. They presently manufacture in Korea and Malaysia and wish to develop a stronger European presence. They examined Feromagnit but consider that the technology does not meet their requirements. It would be useful to get Mr. Buchanan's views in more detail.
- ◆ Industrie Ilpea SPA, Italy. Sen Enrico Riva, Production and Purchasing manager. ILPEA is the largest manufacturer of hard ferrite in Europe, and is also interested in soft ferrite. Senor Riva visited Feromagnit on 2nd November. He had discussions with Mr. Georgiev, Executive Director, and toured the plant. He was accompanied by a Deloitte & Touche consultant who formed the opinion that Feromagnit was not large enough for Ilpea's plans, however this has not been confirmed.
- ◆ Mr. Toshiro Kobayashi, General Manager, Data Media Division Sony Corporation Japan, visited Magnetic Media on 31st January 1994. The visit seemed to go well, although Mr. Kobayashi was disappointed that Bulgaria has no special tariff privileges in exporting to other former CMEA countries. We have written to Mr. Kobayashi to find out his impressions and intentions.
- ◆ Herr Johan Krops of Crystal Management Group, makers of Electronic Ballasts in Holland, wishes to discuss technology transfer with Electrostart Varshets. Correspondence has been passed to Electrostart management.

- ◆ Mr. Stanko Kustrim is Managing Director of BIY Trading Company in Thailand. This company is formed by Yugoslav emigres and wishes to establish a PC assembly operation with multimedia (CD ROM, sound etc) and an Eastern European distribution centre for multi-media software. The correspondence has been passed to the Ministry of Industry and to the Privatisation Agency and should be followed up. Although this lead does not apply to any of the companies on offer, many Bulgarian firms would be interested, eg. Programini Produkki i Sistemi or CCICT.
- ◆ Mr. Chris Bale of the UK company Datastripe said they were interested in Orgtechnica, to the point where they consulted with EC officials and sounded out the possibility of a consortium. In the end they considered that the staffing levels of Orgtechnica were too high in relation to output. (A consultant who also wrote with an interest in Orgtechnica, Mr. M. Hendry, UK, described Orgtechnica's employee numbers as "frightening".)
- ◆ Mr. G. H. Stow of Stolec Ltd., UK has written directly to Feromagnit with a view to Stolec marketing Feromagnit products in the UK. He is Director of a number of companies involved in magnets, connectors and ballasts.
- ◆ Mr. N. R. Huxley of N&N International, UK was interested in Magnetic Media from a marketing angle. They have written to Magnetic Media directly but as of 11th February have not had a reply.
- ◆ Dr. Barbara Page-Roberts of the PRT Group, UK has visited Electrostart. Her company is interested in combining Electrostart with another company which is making electronic ballasts. She has had some discussions with staff and management in Bulgaria and as of the 25th January had started to explore getting finance together. She was unimpressed with Electrostart managements' enthusiasm for privatisation.

- ◆ Smith Newcourt, London are stockholders with an interest in Bulgaria - they presently have a person from Sofia Stock Exchange working with them in a trainee capacity. They are interested in facilitating an equity purchase in Bulgaria and ask to be included on any mailing list of the Privatisation Agency.
- ◆ Mr. J.W. Armstrong, Corporate Acquisitions Manager, TT Group, UK was interested in Feromagnit. His reasons for not progressing the matter indicate the ground work that must be done to improve Bulgaria's image abroad:
 - His company was concerned that quality standards were low.
 - Bulgaria is least well-known of the countries bordering the EU.
 - It is perceived as being less advanced than Poland, Hungary and the Czech Republic.

Because of these factors, they would have difficulty getting commitment from their own managers to relocate to Pernik for a period of years to raise the technology level at Feromagnit.

- ◆ Fiscal Control Systems, San Francisco, USA. Paul Materas, President, is interested in Orgtechnica as a source of cash registers to add to Fiscal Control System's range of Point of Sale systems. Particularly in South American markets they find that there is a demand for cash registers, whereas these are not manufactured in the USA anymore. Mr. Materas intends to visit Bulgaria in April or May '94.
- ◆ Meyer and Co., New Jersey, USA. Mr. Robert Meyer is interested in importing product from Electrostart. His enquiry has been passed on to that company.
- ◆ Finally as of 15th February, Mr. Lorenz of Boeder AG, Germany has faxed asking for more information on Magnetic Media.

It should be stressed that correspondence is ongoing with many firms and further expressions of interest are likely. The correspondence file will be passed with this report to the Privatisation Agency and to the Ministry of Industry.

The list of current contacts is shown in Appendix 2.

SECTION 7

CONCLUSIONS AND RECOMMENDATIONS

Bulgaria has many of the factors it requires to achieve a successful market economy. It is strategically located for trade with the EU, the CMEA, the CIS and the Middle East. It has a widespread and diverse industrial base, a highly educated population and a skilled workforce. Its political institutions are stable. Many commentators predict that the decline in the economy has now reached its lowest point and that 1994 may see a modest growth.

The primary requirement to promote growth is to attract foreign investment in terms of direct capital injection, technology transfer, management training, marketing assistance or any combination of these. Bulgaria has embarked on this route but is coming from behind compared with many of its former trading partners and has a number of obstacles to overcome.

Based on the experience gained during this project, the following recommendations apply. Firstly, to continuation of the project itself; secondly, we review structural and regulatory constraints which affect the process of privatisation, and suggest ways to overcome them; thirdly, we suggest that the approach and methodology adopted in this project might be applied to other similar projects.

Continuing the Project

- ◆ At this point Deloitte & Touche have completed their engagement under this project. It is important that the Bulgarian Electronics Industry should benefit from the interest generated and that contacts with Western firms should be maintained and developed. This will now be the responsibility of the Privatisation Agency and the Ministry of Industry.

To achieve this, the Privatisation Agency and Ministry of Industry are asked to nominate a single contact point to whom Deloitte & Touche may refer further enquiries and correspondence.

- ◆ The nominated contact point should have language skills to communicate with firms from the USA, Western Europe and Japan; we have found that most communication is in English. The staff who man the contact point also need good links to companies who are candidates for privatisation, to respond quickly to requests for product literature and samples and to arrange visits.
- ◆ Staff dealing with enquiries should take a broad view and follow up any lead which might benefit Bulgarian industry. We have found that enquiries range from privatisation of the target companies, to setting up joint ventures with those or with other companies, to queries about establishing trade agencies. It is essential that all such leads be followed up promptly, otherwise the enquirer loses interest and a possible opportunity is lost.

Problems with Industry

At this stage Bulgarian Electronics Companies are not intrinsically attractive for foreign investors. Most are trading at low levels or have ceased trading. They have large debts for which no general solution is yet in place. Many are overmanned by international standards.

- ◆ Most firms in electronics have per force reduced their labour forces and this difficult process must be continued. We have found that staffing levels which are high by international levels are a real deterrent, ref. the comments from the UK firm Datastripe, page 28.
- ◆ The problem that debt causes to the industry is well recognised and acknowledged by the Government. As of now, no general solution is in place but the initiative to transform debt into 25 year Government Bonds could ease the situation.

Structural Recommendations

- ◆ The legislation which splits privatisation between the Ministry for firms under ten million leva valuation, and the Agency for large firms, introduces non-commercial factors into the selection of firms for privatisation and this reduces the chances of success. It should be removed.

- ◆ The privatisation process is too long-winded. The General Manager from Sony Japan who visited ZIN expressed dismay at the length of time the process would take. He was surprised at the number of steps and said that Sony would prefer a joint venture rather than enter the privatisation process.

The present legislation protects against disposal of assets at too low a price and seeks to protect employees. These are worthwhile objectives, but the result is a procedure which is formal, legalistic and lengthy. It is recommended that the legislation be amended to give equal emphasis to commercial and practical considerations.

- ◆ The division of responsibilities for privatisation between the Ministry and the Privatisation Agency, depending on whether valuation is less or more than ten million leva, introduces non-commercial factors into the selection of firms, and duplicates functions.

Although the Privatisation Agency is specifically charged with privatisation, it is handicapped by lack of familiarity with the sector and by the cumbersome procedure so that little has been achieved to date.

Unless the procedure can be streamlined, it may be more effective to give primary responsibility to the Ministry for privatisation of all firms within its ownership, regardless of value. The Privatisation Agency could

enlarge its role as co-ordinator and facilitator, assisting the Ministry of Industry, and other state bodies, to privatise their assets rather than being itself directly responsible.

- ◆ The Sony executive was surprised that Bulgaria seemed to have no trading advantages over, e.g. the USA, France or Italy in trading with other countries in Eastern Europe.

At an international level, Bulgaria should look for regional trading advantages with its former partners to their mutual benefit.

Future Projects

During this project, Western consultants worked closely with Ministry and Agency staff and with Bulgarian colleagues. As a result, people with experience of selecting firms for privatisation, preparing information memoranda, conducting advertising and mailshot campaigns and following through with interested companies are now resident in Sofia and are available for further projects in electronics and other sectors.

It is important to continue to publicise Bulgarian Industry and its attractions in the world press. This will overcome the disadvantage of Bulgaria's late start and will generate continued enquiries from foreign investors. People who are experienced in the methodology are available in Sofia to carry out this work, and the Privatisation Agency should seek funding to direct similar focused campaigns in electronics and other sectors.

It is important that the interest and knowledge of Bulgaria that this project has generated in the world business community should be sustained and should not be let die away because of lack of follow through.

APPENDIX 1

SECTION 1: GENERAL

1.1 Company Name

1.2 Address

1.3 Telephone:

1.4 Fax:

1.5 Respondent's Name:

1.6 Position:

1.7 Legal Structure of Company

Limited
Joint Stock
State Owned
Joint Venture
Other (Please Specify):

1.8 Date of establishment of the plant:

Date of last registration:

1.9 Electronics Industry Subsector

Communications
Microprocessors
Active and Passive Components
Magnetic Tapes
Software
Microelectronics
Specialized Engineering

SECTION 2: PRODUCTION

2.1 List up to four manufacturing units which are stand-alone units on your site, in order of importance.

Description	Number Employed		Capacity Utilisation	
	1989	1992	1989	1992
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10				

2.2 Energy Consumed in 1989 and in 1992 in kwh p.a.

2.3 Details of four most important product groups, or services:

PRODUCT, PRODUCT GROUP OR SERVICE NO.1.

Application software for different purposes - administration, production, planning, storage control, agriculture, etc.

Market competitiveness for each market type
Score 1 = Highly Competitive, 5 - Very Uncompetitive

National CMEA Global

Who is your main competitor in each market?

National:

CMEA:

Global:

Score your product qualities against Global competition.
(Your product is; 1= Better, 2= As Good, 3= Not as Good)

Performance: Quality: Specifications: Cost:

Production Capacity in Number of units, 1992:

Product's share of total capacity, 1992 %:

PRODUCT, PRODUCT GROUP OR SERVICE NO.2

Assembly of personal computers (PC XT, AT) with specialised graphics and communication interface

Market competitiveness for each market type
Score 1 = Highly Competitive, 5 - Very Uncompetitive

National CMEA Global

Who is your main competitor in each market?

National:

CMEA:

Global

Score your product qualities against Global competition.
(Your product is; 1= Better, 2= As Good, 3= Not as Good)

Performance: Quality: Specifications: Cost:

Production Capacity in Number of Units, 1989:

Product's share of total capacity, 1992 %:

PRODUCT, PRODUCT GROUP OR SERVICE NO.3

Maintenance of computer systems and peripherals - guarantee and post guarantee of firm's systems and from other manif.

Market competitiveness for each market type
Score 1 = Highly Competitive, 5 - Very Uncompetitive

National CMEA Global

Who is your main competitor in each market?

National:

CMEA:

Global:

Score your product qualities against Global competition.
(Your product is; 1= Better, 2= As Good, 3= Not as Good)

Performance: Quality: Specifications: Cost:

Production Capacity in Number of units, 1992:

Product's share of total capacity, 1992 %:

PRODUCT, PRODUCT GROUP OR SERVICE NO.4

Multilayer PCBs

Market competitiveness for each market type
Score 1 = Highly Competitive, 5 - Very Uncompetitive

National CMEA Global

Who is your main competitor in each market?

National:

CMEA:

Global

Score your product qualities against Global competition.
(Your product is; 1= Better, 2= As Good, 3= Not as Good)

Performance: Quality: Specifications: Cost:

Production Capacity in Number of Units, 1989:

Product's share of total capacity, 1992 %:

PRODUCT, PRODUCT GROUP OR SERVICE NO.5

Publishing, advertising, fairs and exhibitions

Market competitiveness for each market type
Score 1 = Highly Competitive, 5 - Very Uncompetitive

National CMEA Global

Who is your main competitor in each market?

National:

CMEA:

Global:

Score your product qualities against Global competition.
(Your product is; 1= Better, 2= As Good, 3= Not as Good)

Performance: Quality: Specifications: Cost:

Production Capacity in Number of units, 1992:

Product's share of total capacity, 1992 %:

PRODUCT, PRODUCT GROUP OR SERVICE NO.6

Mechanical constructions from sheet metal

Market competitiveness for each market type
Score 1 = Highly Competitive, 5 - Very Uncompetitive

National CMEA Global

Who is your main competitor in each market?

National:
CMEA:
Global

Score your product qualities against Global competition.
(Your product is; 1= Better, 2= As Good, 3= Not as Good)

Performance: Quality: Specifications: Cost:

Production Capacity in Number of Units, 1989:

Product's share of total capacity, 1992 %:

PRODUCT, PRODUCT GROUP OR SERVICE NO.7

Production of hard alloy drills

Market competitiveness for each market type
Score 1 = Highly Competitive, 5 - Very Uncompetitive

National CMEA Global

Who is your main competitor in each market?

National:
CMEA:
Global:

Score your product qualities against Global competition.
(Your product is; 1= Better, 2= As Good, 3= Not as Good)

Performance: Quality: Specifications: Cost:

Production Capacity in Number of units, 1992:

Product's share of total capacity, 1992 %:

2.4 List up to 20 of your most important items of production equipment (or production lines where appropriate).

Description	Country of Origin	Capacity in Units Per Hour	Purchase Price Y BGL
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

2.5 How do your current processes compare with world standards?

- (a) Up to date
- (b) Technology Gap 1-3 Years
- (c) Technology Gap over 3 Years

2.6 Premises

Production area: sq. metres

Distance to closest: Railway Station km

 National Route km

 Airport km

 Port km

2.7 Describe up to three important improvements to your production facilities.

Description	Date	Proc Imp.
1.		
2.		
3.		

2.8 Please tick the following techniques which are used in your company?

Computerised Production Planning	CPP
Flexible Manufacturing Systems	FMS
Robotics / Auto. Guided Vehicles	AGV
Just in Time	JIT
Electronic Data Interchange	EDI
Computer Integrated Manufacturing	CIM
Computer Aided Design	CAD
Computer Numerical Control	CNC
Statistical Process Control	SPC
Surface Mount Technology	SMT
Automated Insertion	
Diagnostic Techniques	

2.9 Are your quality control techniques and assurance systems certified to an international standard and if so which one?

Yes/No .

Name of Standard: .

2.10 Indicate up to four tests of production which are carried out and the test equipment used.

Test	Equipment
1	
2	
3	
4	

SECTION 3: RESEARCH AND DEVELOPMENT

3.1 Do you use outside organisations for R&D services? (Yes/No) YES

If yes please list:

1
2
3
4

3.2 Indicate the following numbers of employees in the R&D Department.

Phds	Engineers
Technicians	Others

3.3 Does the R&D Department ?

Improve the process - % Time
Engage in pure research - % Time
Sell services and products - % Time

3.4 Describe up to four major contributions of R&D to the firm's successful development.

1
2
3
4

3.5 How many patents have been granted for R&D work in the past 10 years
No. = 0

SECTION 4 HUMAN RESOURCES

4.1 Average number of employees 1989 1992

Total
Management
Finance
Engineers
Technicians
Admin./Marketing
Craftspeople
Apprentices
Prod'n. Operatives
Others

4.2 Please indicate the key training need for the following occupations in your company.

Managers
Marketing
Engineers
Technicians
Financial Manager
Administration
Cost Accountants
Craftspeople
Apprentices
Prod'n Operatives
Others (Specify)

13

SECTION 5: MAIN ECONOMIC INDICATORS

5.1 What is the financial structure of your enterprise for 1989 and 1992?

	1989	1992
Ownership		
Total of Capital & Reserves		
Split of Capital & Reserves		
Debt to Equity Ratio		

5.2 Indicate the total value of fixed assets (BGL '000).

	Before Revaluation	After Revaluation
Land		
Buildings		
Machinery		
Vehicles		
Office Equipment		
Other		
Date of revaluation	/ /	

5.3 Margins operated on:

	1989	1992
Gross %		
Net %		

5.4 Total Sales

	1989 BGL '000	1992 BGL '000
Bulgarian Sales		
CMEA Sales		
Western Europe Sales		
Other Sales		
Total Sales		

5.5 Outline the percentage of total Sales that are to:

	1989	1992
Internal Market	%	%
State Enterprises		
Private Enterprises		
Export Sales		
By own affiliated company		
Direct Export Sales to client		

5.6 In what market sectors are your key customers?

Agriculture / Forestry / Fishing
 Energy
 Chemical / Pharmaceutical.....
 Building and Civil Engineering.....
 Food and Drink.....
 Mechanical Engineering.....
 Automotive Manufacture.....
 Office Equipment / Computers.....
 Electrical Engineering.....
 Telecommunications.....
 Consumer Goods.....
 Transport / Distribution.....
 Other (Specify)

5.7 What are your normal Ratios:

	1989	1992
Direct Raw Materials (incl energy)%of sales		
Energy as a % of sales		
Direct Labour and Social Security %of sales		
Depreciation, included in pron'n overhead		
Administrative Costs		
- Labour and Social Security		
- Depreciation		
- Others		

5.8 What levels of stocks are held in:

	BGL '000	% Stock Turnover
Raw Materials		
Work in Progress		
Finished Goods		

45

5.9 Material Supply

What is the percentage of your raw material sourced in:

	1989 %	1992 %
Bulgaria		
CMEA		
Europe		
America		
Other		

5.10 List up to four new Products / Services and Market Sectors which you see as having maximum potential for you?

Products / Services	Market Sectors
1..	
2..	
3..	
4..	

5.11 Is the marketing structure of your firm based on:

	1989	1992
Agents		
In Bulgaria		
Abroad		
Sales Representatives		
In Bulgaria		
Abroad		
Others		
In Bulgaria		
Abroad		

5.12 Are details of costing systems or products available?

4/6

Firm,Contact,Partial Address	0	Ad- vert	Int- rest	Last Contact	Ref. #	Seq #	Note 15 Feb 94	Page 2
GERMANY								
H.HILDWEIN,BARTEC COMPIT,RICHARD-ROHLF STRASSE 1,D-74731 WALLDURN-ALTHEIM,GERMANY		EP	EF	94/01/25	11	23		
MR.MASAHIKO KISHIMOTO, FUJI MAGNETICS GMBH, D-4190 KLEVE, FUJISTRASSE 1, GERMANY		M	M	94/01/25	12	24		
HERR J.HEINRICHS, R.WOLF GMBH, PFORZHEIMER STRASSE 32, 75438 KNITTLINGEN, GERMANY		EP	ALL	94/01/25	12A	25		
MR. EVSTATIEV, FORSCHUNGSINSITUT R&D, PARKALLEE 26, 23845 BORSTEL, GERMANY		EP	ALL	94/01/25	12B	26		
HERR M.H.PFLEGER, INDUSTRIEBERATUNG, AM SANDBERG 13, 83329 WAGING,GERMANY		EP	ALL	94/01/25	12C	27		
HERR M.L.SACHSSE, HOPPE & CO, GESCH LTD, GAISMANNSHOFSTR.38,90431 NUERNBERG,GERMANY		EP	ALL	94/01/25	12D	28		
HERR ROBERT LAWRENCE, BOEDER INTERNATIONAL SA, GERMANY		M	M	94/01/12	12D1	29	MEMOREX LICENCE	
HERR M.H.RUWWE, SHOTGLASS-LAUTSPRECHERSYS, POSTFACH 380245, 14112 BERLIN, GERMANY		EP	ALL	94/02/08	12D2	30		
HERR H.HILDWEIN, BARTEC COMPIT, PM-1, RICHARD ROLF STRASSE, 74731 WALLDUERN, GERMANY		EP	ALL	94/01/25	12E	31		
GREECE								
MR. M. J. RODITHS,D.R.ELECTRONIC, AVRAS 79,24100 KALAMATA, GREECE		EP	ALL	94/01/25	12F	32		
MR. M.P.EFTHIMIOU, UNIVERSITY OF CRETE, MED.SCH.ELECTR.LAB, 71409 IRAKLIO, GREECE		EP	ALL	94/01/25	12G	33		
MR.S.CHRISTIDIS, CENDATA LTD, PURCHASING DEPT, THEMISTOKLEOUS 30, 17455 ATHINAI, GREECE		EP	ALL	94/02/08	12H	34		
INDIA								
MR.AMIT NAG, FIN.CONTROLLER, IFB INDUSTRIES LTD, 14 TARATOLLA RD, CALCUTTA 700 088, INDIA		E	ALL	94/01/25	14	35		
IRELAND								
MR.SEAMUS O'SULLIVAN, GM, AEG SERVOSYSTEMS, GORT RD, ENNIS, CO.CLARE, IRELAND		Per	F	94/01/25	15	36		
MR.PAT BUCHANAN, VP EUROPEAN OPERATIONS, APPLIED MAGNETICS LTD, COOLOCK, D5 IRELAND		F	F	94/01/25	16	37		
MR.TOM KENNY, ASPEN CORPORATION, DROMORE CASTLE, KILDIMO, CO.LIMERICK, IRELAND		F	FOS	94/01/25	17	38		
ISRAEL								
MR. R SHMUEL, S.R BUSINESS CONSULTANT, PO BOX 628 HOLON, ISRAEL			ALL	94/01/25	19	39		
MR. DAN BAVLY, HORWATH BAVLY, PO BOX 50075, TEL AVIV 61500, ISRAEL		B	ALL	94/01/10	19A	40		
MR. JEFF LORCH, Y LORCH ENG.CONSULTANTS, PO BOX 3596, RAMOT-HASHAVIM 45930,ISRAEL		EP	EM	94/01/21	19B	41		
MR.M.NATHAN BARON, TOYO RAM ELECTRONICS LTD, PO BOX 2334, 43653 RAANANA, ISRAEL		EP	ALL	94/02/08	19C	42		
MR. M. A. AMIR, SHARON AGENCIES, PO BOX 342, 47103 RAMAT-HASHARON, ISRAEL		EP	ALL	94/02/08	19E	43		
MR. M. BRISK ZAFRIIR, A. Z. R&D, PO BOX 5032, 49925 KEFAR-MAAS, ISRAEL		EP	ALL	94/02/08	19F	44		

Firm, Contact, Partial Address	0	Ad- vert	Int- rest	Last Contact	Ref. #	Seq #	Note 15 Feb 94	PAGE 3
ITALY								
M.G.GRIVA ASPASIA, GRIVA'S AIRCRAFT CORP, VIA FORZE ARMATE 260/8, 20152 MILANO, ITALY		EP	ALL	94/01/25	20A	45		
DR.C.NERAZZINI, AGUSTA SISTEMI, SPACE APP Q MGR, VIA ISONZO 33, 21049 TRADATE(VA), ITALY.		EP	ALL	94/01/25	20B	46		
M.MAZZOCCA, MAZTEC ELLETRONICA, V.MONTEGRAPPA 55, 31033 CASTELFRANCO VENETO(TV), ITALY		EP	ALL	94/01/25	20C	47		
M.P.CORRELLI, OSSERVATORIO, VIA DEI BRAZZA 23, 33010 PAGNACCO UDINE, ITALY		EP	ALL	94/01/25	20D	48		
MR.D.PECCHI, DIRECTOR, FTM ELETTRONICA, VIA CORRIDON 11, 20091 BRESSO, ITALY		EP	ALL	94/01/25	20E	49		
ADRIANO CALIGARI, HONEYWELL CONTROL SYSTEMS, VIA VOLTA 16, COLOGNO, MILANO 20093, ITALY		M	S	94/01/25	20F	50		
M.P.CORTAZZO, ORVEM SPA, COMMERCIAL, VIA DOMODOSSOLA 17, 20145 MILANO, ITALY		EP	ALL	94/01/25	20G	51		
Sn. M.M.MOSCATI, GIANFRANCO FRASCATI SNC, SALE AGENT, VIA PALIZZI 81, 80127 NAPOLI, ITALY		EP	ALL	94/02008	20H	52		
SIGNOR E.RIVA, INDUSTRIE ILPEA SPA, 1-21023 MALGESSO, VIA DELL'INDUSTRIA 21, ITALY			F	93/11/11	21	53	Visited Feromagnit	
MR.L.LOMBARDO, IDEALAB ROBOTICS, CORSO LIMONE PIEMONTE 6, 18039 VENTIMIGLIA, ITALY		EP	ALL	94/01/25	21A1	54		
MR. M.P.TOJA, FLPA PROJECT, VIA MARSALANR 30E, 21052 BUSTO ARISIZIO, ITALY		EP	ALL	94/01/25	21A3	55		
JAPAN								
MR.YUKIHIDE KIN, SEIWA SYSTEMS, 3-17-18-203 SHIMORENJAKU, MITAKA-SHI, TOKYO 181, JAPAN		N	ALL	94/01/25	21A4	56		
MR. T.MATSUZAKI, 839 TAKABA KATSUTA-SHI, IBARAKI-KEN, 312 JAPAN		N	ALL	94/01/25	21A5	57		
MR.M.SASAI, MEGATRADE, SONDASO, 29HINOGUCHICHO TANAKANISHI, SAKYO-KU KYOTO-SHI, JAPAN		N	ALL	94/01/25	21A6	58		
MR.T.KATOH, SP.STEELS, NIKKO METAL CO, 2-10-1 TORANOMON MINATO-KU, TOKYO, 105 JAPAN		N	ALL	94/01/25	21A7	59		
MR.TOSHIRO KOBAYASHI, SONY CORP., GM DATA MEDIA DIV., RECORDING MEDIA PROD'TS GRP, JAPAN		M	M	94/01/31	21A8	60	Visited Mag Med	
MEXICO								
R.BLANCARTE, TRANSFORMADORES DE JARDIN, OFICINA CALZADA LAS LOMAS 180, MEXICO		S	E	94/01/25	21A9	61	Assy under license	
MR.E.VEGA, GALERIA DE MUEBLE, AV.HIDALGO 1770SH, GUADALJARA JAL45130, MEXICO		B	ALL	94/01/10	21B	62		
NETHERLANDS								
M.L.GERRITSEN, HOSPITAL MED.FYSIKA, PHILIPS DE SCHONESTR.7, 5216 AJ DEN BOSCH, NETHERLANDS		EP	ALL	94/01/25	22	63		
MR. H.BRAAK, W GANSFORT STR 22, AMSTERDAM 1064 NP, NETHERLANDS		B	ALL	94/01/10	22A	64		
Mr.W.van der Ven, Phillips Lighting Europe, PO Box 80020-5600, JM Eindhoven, Netherlands		M	E	94/01/19	22B	65		
DR. J. SCHUITEMA, RITSMA NOORD NDL BV, DIRECTIE, EUROWEG 54, 9351 GR LEEK, NETHERLANDS		EP	ALL	94/01/25	23	66		
J.KROPS, CRYSTAL MGT GROUP, KASTEEL HOUTMEULENSTRAAT 9, 6222 AV MAASTRICHT, HOLLAND			E	94/01/13	23A	67	TELEPHONE CALL	
NORWAY								
H-P HENRICUS, HENACO, TRONDHEIMSVEIEN 436, PO BOX 126 KALBAKKEN, N-0902 OSLO, NORWAY		EP	S	94/01/25	24	68		
MR. M.A.KJELL, ROEDERSTEIN NORGE AS, POSTBOKS 101, 3425 REISTAD, NORWAY		EP	ALL	94/01/25	25	69		
PORTUGAL								
MR. J.PEREIRA, LASI ELECTRONICA MGT., R DAS PIAS PACO D'ARCOS, 2780 OEIRAS, PORTUGAL		EP	ALL	94/01/25	25A	70		
SINGAPORE								
MR.Y.Y.WONG, GOLDTRON LTD, 100 BEACH RD, 19-05/10 SHAW TOWERS, SINGAPORE 0718		W	EM	94/01/25	27	71		

SECTION 6 CRITICAL FACTORS

6.1 Are there any comments you would like to make on any of the issues raised in this form or on general trends both global and local affecting your firm.

6.2 Do you have a business plan? (Yes/No)

6.3 Rate the importance of the Critical Factors listed below, to the future of your firm of unit. (1= Very Important, 5 = Not Important)

New Equipment	Technological Change
Existing Competitors	New Competitors
Skill Shortages	New Products
Substitute Products	Labour Costs
Capital Costs	Interest Rates
Enviromentalism	Bulgarias Location/Image
Trade Unions	Energy Costs
Managment Instability	Restitution Problems
Other	

Describe:
.
.

MEMO

Premises of 10,500 m2 which are not in use are not entered in the questionnaire.

Appendices are attached.

Attached is a proposal for privatisation prepared by a British expert for the board of SPS dated 24 September 1990

Financial Information.

Q5.2 Not included in the value of the Assets is 47 mln. lv. for unfinished buildings.

Q.5.3 No percentage is given for gross margins 1992 - Loss for 25 mln.lv for first nine monthths.

The Net Margin for 1989 does not appear to be correct.

49

APPENDIX 2

10

Contact, Firm, Address	Ad- vert	Int- rest	Last Contact	Ref. #	Seq #	Notes 15 Feb 94	PAGE 1
AUSTRIA Mr. M.HALLATSCHEK, ARROWS-COMPUTER, 65 KARMARSCHGASSE, 1104 WIEN, AUSTRIA	EP	ALL	94/01/25	01	1		
MR.N.KIESLENG, HONEYWELL CONTROL SYSTEMS, HANDELSKAI 388, VIENNA 1020, AUSTRIA	M	S	94/01/25	02A	2		
MR.H.MALZER, GEN.MGR, EKLAMA AIR GMBH, ANSCHUETZGASSE 14, 1150 WIEN, AUSTRIA	EP	ALL	94/01/25	02B	3		
AUSTRALIA MR.GEORGE VANTAS, 97 CAPTAIN COOK DRIVE, BARRACK HEIGHTS, N.S.W.2528, AUSTRALIA	E	O	94/01/25	03	4	PRIVATE INV.	
BAHREIN MR.MUSTAPHA S. MOGRI, P.O. BOX 25182, AWALI, BAHREIN		ALL	94/01/25	04	5	PRIVATE INV.	
BELGIUM MR. JAMES WILSON, TOSHIBA CORP., AVENUE LOUISE 65, BOX 11, BRUSSELS 1050, BELGIUM		ALL	94/01/25	05	6	general interest	
MR. M. F. DECRU, ELDECO BVBA, KALKENSTRAAT 91, 8800 ROESLARE, BELGIUM	EP	ALL	94/01/25	05A	7		
MR. D. RIGHELE, ISIM R&D, VIEILLE PLACE 6, 7110 STREPY-BRACQUEGNIES, BELGIUM	EP	ALL	94/01/25	05B	8		
MR. TONY NEVEN, SENTINEL NV, BODEM-BODEMSTRAAT 12, POSTBUS 51-3830, WELLEN, BELGIUM	M	M	93/12/14	05C	9	VISITING MAG MED	
MR. ALFIE FALKENBACH, DRYSDALE VANDERSCHMID, RUE JEAN SHAPELI 10, BRUSSELS, BELGIUM	B	ALL	94/01/07	05D	10		
MR. Ronan McDonchadha, Pioneer Electronics Manuf. NV, Joseph Cardijnstraat 31, 9420 Erpe-Meri, Belgium	Per.	F	94/01/13	05E	11		
BULGARIA P.D.KHULLAR, TRANSONY CORP, APT.78 10TH FLOOR, BLOCK 208 ENT.1, MLADOST II, SOFIA, BULGARIA	F	ALL	94/01/25	06	12	PARENT SINGAPORE	
MR. JOHN AYERST, NETWORK EAST-WEST, 1463 SOFIA, VELA BLAGOEVA 6, BULGARIA	F	F	93/10/15	06A	13	PRIVATE INV.	
CANADA MARC M. HADID, PRESIDENT, MVA POWER INC, 4515 VAN HORNE, MONTREAL, QUE., CANADA H3S 1S2	S	ALL	94/01/25	06C	14		
EGYPT MR. FARID GAMALELDIN, APT. 104, ABUELTHAMEEN SQUARE, GIZA 12411, EGYPT	B	ALL	94/01/10	06G	15	PRIVATE INV.?	
FRANCE M. PETER SMITH, B.P. 429, 64004 PAU CEDEX, FRANCE	F	F	93/10/19	07	16	TO BUY MAGNETS	
M. PATRICK LEVILLAIN, CFB, 4 RUE BRUNEL, 75017 PARIS, FRANCE	E	F	94/01/25	08	17		
MR. DIDIER, MOLEX, 52 AVE. DES CHAMPS ELYSEE, 75008 PARIS, FRANCE	Per	S	94/01/25	09	18	LOW INTEREST	
M. J.M.ESCONDEUR, UGIMAG SA, BOITE POSTALE NO. 2, 38830 ST.PIERRE D'ALLEVARD, FRANCE	Per	F	94/03/01	10	19	TO VISIT FEROMAG	
M. M. C. LEJUS, THOMSON CSF LER, 4 AV. BELLE FONTAINE, 35510 CESSON-SEVIGNE, FRANCE	EP	ALL	94/01/25	10A	20		
FINLAND MR. M. H. PIELA, UNICASH OY, ELECTRO SVC, KORNETINTI 6, 00380 HELSINKI, FINLAND	EP	ALL	94/01/25	10B	21		
MR. M.H.PYKALAINEN, PYKALAINEN ELECTRONICS, PO BOX 7, 04501 KELLOKOSKI, FINLAND	EP	ALL	94/01/25	10C	22		

Firm,Contact,Partial Address	Ad- vert	Int- rest	Last Contact	Ref. #	Seq #	Note 2 March 1994	Page 2
GERMANY							
H.HILDWEIN,BARTEC COMPIT,RICHARD-ROHLF STRASSE 1,D-74731 WALLDURN-ALTHEIM,GERMANY	EP	EF	94/01/25	11	23		
MR.MASAHIKO KISHIMOTO, FUJI MAGNETICS GMBH, D-4190 KLEVE, FUJISTRASSE 1, GERMANY	M	M	94/01/25	12	24		
HERR J.HEINRICHS, R.WOLF GMBH, PFORZHEIMER STRASSE 32, 75438 KNITTLINGEN, GERMANY	EP	ALL	94/01/25	12A	25		
MR. EVSTATIEV, FORSCHUNGSINSITUT R&D, PARKALLEE 26, 23845 BORSTEL, GERMANY	EP	ALL	94/01/25	12B	26		
HERR M.H.PFLEGER, INDUSTRIEBERATUNG, AM SANDBERG 13, 83329 WAGING,GERMANY	EP	ALL	94/01/25	12C	27		
HERR M.L.SACHSSE, HOPPE & CO, GESCH LTD, GAISMANNSHOFSTR.38,90431 NUERNBERG,GERMANY	EP	ALL	94/01/25	12D	28		
HERR ROBERT LAWRENCE, BOEDER INTERNATIONAL SA, GERMANY	M	M	94/01/12	12D1	29	MEMOREX LICENCE	
HERR M.H.RUWWE, SHOTGLASS-LAUTSPRECHERSYS, POSTFACH 380245, 14112 BERLIN, GERMANY	EP	ALL	94/02/08	12D2	30		
HERR H.HILDWEIN, BARTEC COMPIT, PM-1, RICHARD ROLF STRASSE, 74731 WALLDUERN, GERMANY	EP	ALL	94/01/25	12E	31		
GREECE							
MR. M. J. RODITHS,D.R.ELECTRONIC, AVRAS 79,24100 KALAMATA, GREECE	EP	ALL	94/01/25	12F	32		
MR. M.P.EFTHIMIOU, UNIVERSITY OF CRETE, MED.SCH.ELECTR.LAB, 71409 IRAKLIO, GREECE	EP	ALL	94/01/25	12G	33		
MR.S.CHRISTIDIS, CENDATA LTD, PURCHASING DEPT, THEMISTOKLEOUS 30, 17455 ATHINAI, GREECE	EP	ALL	94/02/08	12H	34		
INDIA							
MR.AMIT NAG, FIN.CONTROLLER, IFB INDUSTRIES LTD, 14 TARATOLLA RD, CALCUTTA 700 088, INDIA	E	ALL	94/01/25	14	35		
IRELAND							
MR.SEAMUS O'SULLIVAN, GM, AEG SERVOSYSTEMS, GORT RD, ENNIS, CO.CLARE, IRELAND	Per	F	94/01/25	15	36		
MR.PAT BUCHANAN, VP EUROPEAN OPERATIONS, APPLIED MAGNETICS LTD, COOLOCK, D5 IRELAND	F	F	94/01/25	16	37		
MR.TOM KENNY, ASPEN CORPORATION, DROMORE CASTLE, KILDIMO, CO.LIMERICK, IRELAND	F	FOS	94/01/25	17	38		
ISRAEL							
MR. R SHMUEL, S.R BUSINESS CONSULTANT, PO BOX 628 HOLON, ISRAEL		ALL	94/01/25	19	39		
MR. DAN BAVLY, HORWATH BAVLY, PO BOX 50075, TEL AVIV 61500, ISRAEL	B	ALL	94/01/10	19A	40		
MR. JEFF LORCH, Y LORCH ENG.CONSULTANTS, PO BOX 3596, RAMOT-HASHAVIM 45930,ISRAEL	EP	EM	94/01/21	19B	41		
MR.M.NATHAN BARON, TOYO RAM ELECTRONICS LTD, PO BOX 2334, 43653 RAANANA, ISRAEL	EP	ALL	94/02/08	19C	42		
MR. M. A. AMIR, SHARON AGENCIES, PO BOX 342, 47103 RAMAT-HASHARON, ISRAEL	EP	ALL	94/02/08	19E	43		
MR. M. BRISK ZAFRIIR, A. Z. R&D, PO BOX 5032, 49925 KEFAR-MAAS, ISRAEL	EP	ALL	94/02/08	19F	44		

94

Firm, Contact, Partial Address	Ad- vert	Int- rest	Last Contact	Ref. #	Seq #	Note	PAGE 3
	0					2 March 1994	
ITALY							
M.G.GRIVA ASPASIA, GRIVA'S AIRCRAFT CORP, VIA FORZE ARMATE 260/8, 20152 MILANO, ITALY	EP	ALL	94/01/25	20A	45		
DR.C.NERAZZINI, AGUSTA SISTEMI, SPACE APP Q MGR, VIA ISONZO 33, 21049 TRADATE(VA), ITALY.	EP	ALL	94/01/25	20B	46		
M.MAZZOCCA, MAZTEC ELLETRONICA, V.MONTEGRAPPA 55, 31033 CASTELFRANCO VENETO(TV), ITALY	EP	ALL	94/01/25	20C	47		
M.P.CORRELLI, OSSERVATORIO, VIA DEI BRAZZA 23, 33010 PAGNACCO UDINE, ITALY	EP	ALL	94/01/25	20D	48		
MR.D.PECCHI, DIRECTOR, FTM ELETTRONICA, VIA CORRIDON 11, 20091 BRESSO, ITALY	EP	ALL	94/01/25	20E	49		
ADRIANO CALIGARI, HONEYWELL CONTROL SYSTEMS, VIA VOLTA 16, COLOGNO, MILANO 20093, ITALY	M	S	94/01/25	20F	50		
M.P.CORTAZZO, ORVEM SPA, COMMERCIAL, VIA DOMODOSSOLA 17, 20145 MILANO, ITALY	EP	ALL	94/01/25	20G	51		
Sn. M.M.MOSCATI, GIANFRANCO FRASCATI SNC, SALE AGENT, VIA PALIZZI 81, 80127 NAPOLI, ITALY	EP	ALL	94/02008	20H	52		
SIGNOR E.RIVA, INDUSTRIE ILPEA SPA, 1-21023 MALGESSO, VIA DELL'INDUSTRIA 21, ITALY		F	93/11/11	21	53	Visited Feromagnit	
MR.L.LOMBARDO, IDEALAB ROBOTICS, CORSO LIMONE PIEMONTE 6, 18039 VENTIMIGLIA, ITALY	EP	ALL	94/01/25	21A1	54		
MR. M.P.TOJA, ELPA PROJECT, VIA MARSALANR 30E, 21052 BUSTO ARISIZIO, ITALY	EP	ALL	94/01/25	21A3	55		
JAPAN							
MR.YUKIHIDE KIN, SEIWA SYSTEMS, 3-17-18-203 SHIMORENJAKU, MITAKA-SHI, TOKYO 181, JAPAN	N	ALL	94/01/25	21A4	56		
MR. T.MATSUZAKI, 839 TAKABA KATSUTA-SHI, IBARAKI-KEN, 312 JAPAN	N	ALL	94/01/25	21A5	57		
MR.M.SASAI, MEGATRADE, SONDASO, 29HINOGUCHICHO TANAKANISHI, SAKYO-KU KYOTO-SHI, JAPAN	N	ALL	94/01/25	21A6	58		
MR.T.KATOH, SP.STEELS, NIKKO METAL CO, 2-10-1 TORANOMON MINATO-KU, TOKYO, 105 JAPAN	N	ALL	94/01/25	21A7	59		
MR.TOSHIRO KOBAYASHI, SONY CORP., GM DATA MEDIA DIV., RECORDING MEDIA PROD'TS GRP, JAPAN	M	M	94/01/31	21A8	60	Visited Mag Med	
MEXICO							
R.BLANCARTE, TRANSFORMADORES DE JARDIN, OFICINA CALZADA LAS LOMAS 180, MEXICO	S	E	94/01/25	21A9	61	Assy under license	
MR.E.VEGA, GALERIA DE MUEBLE, AV.HIDALGO 1770SH, GUADALJARA JAL45130, MEXICO	B	ALL	94/01/10	21B	62		
NETHERLANDS							
M.L.GERRITSEN, HOSPITAL MED.FYSIKA, PHILIPS DE SCHONESTR.7, 5216 AJ DEN BOSCH, NETHERLANDS	EP	ALL	94/01/25	22	63		
MR. H.BRAAK, W GANSFORT STR 22, AMSTERDAM 1064 NP, NETHERLANDS	B	ALL	94/01/10	22A	64		
Mr.W.van der Ven, Phillips Lighting Europe, PO Box 80020-5600, JM Eindhoven, Netherlands	M	E	94/01/19	22B	65		
DR. J. SCHUITEMA, RITSMA NOORD NDL BV, DIRECTIE, EUROWEG 54, 9351 GR LEEK, NETHERLANDS	EP	ALL	94/01/25	23	66		
J.KROPS, CRYSTAL MGT GROUP, KASTEEL HOLTMEULENSTRAAT 9, 6222 AV MAASTRICHT, HOLLAND		E	94/01/13	23A	67	TELEPHONE CALL	
NORWAY							
H-F HENRICUS, HENACO, TRONDHEIMSVEIEN 436, PO BOX 126 KALBAKKEN, N-0902 OSLO, NORWAY	EP	S	94/01/25	24	68		
MR. M.A.KJELL, ROEDERSTEIN NORGE AS, POSTBOKS 101, 3425 REISTAD, NORWAY	EP	ALL	94/01/25	25	69		
PORTUGAL							
MR. J.PEREIRA, LASI ELECTRONICA MGT., R DAS PIAS PACO D'ARCOS, 2780 OEIRAS, PORTUGAL	EP	ALL	94/01/25	25A	70		
SINGAPORE							
MR.Y.Y.WONG, GOLDTRON LTD, 100 BEACH RD, 19-05/10 SHAW TOWERS, SINGAPORE 0718	W	EM	94/01/25	27	71		

Firm,Contact,Partial Address	Ad- vert	Int- rest	Last Contact	Ref. #	Seq #	Note 15 Feb 94	Page 4
SPAIN							
SN.ANTONIO RUBIES, 21 INGENIERIA INFORMATICA,MILANESADO 1 BIS,08017 BARCELONA,SPAIN	EP	M	94/01/25	28	72		
M.J.EGIDO CASAS,GENERAL MOTOROS, CRTA ESTACION S/N,50295 R.DE JALON,ZARAGOSA,SPAIN	EP	ALL	94/01/25	28A	73		
MR.G.ABAD, GOIKARA, APARTADO 321, 01080 VITORIA, SPAIN	EP	ALL	94/01/25	28A1	74		
MR. P.CASSANOVAS, CALITEC R&D, CHURRUCA 7,1, 08906 BARCELONA, SPAIN	EP	ALL	94/01/25	28B	75		
M.A.JAVIERRE,ARIES I.N. ELECTRONICA, CALERVEGA 79, 28033 MADRID, SPAIN	EP	ALL	94/01/25	28C	76		
SEN. M.X.DEL REY, INST.POLITECHNIQUE FP, APARTADO 433,43080 TARRAGONA, SPAIN	EP	ALL	94/01/25	28D	77		
M.J.NUNEZ, J.V.N., CERDENA 476A, 8025 BARCELONA, SPAIN	EP	ALL	94/01/25	28E	78		
SWEDEN							
MR.HALKEN FALK, PRESIDENT, LAK ELEKTRONIK, BOX 27276, 10253 STOCKHOLM, SWEDEN	EP	FSE	94/01/25	28E1	79		
SWITZERLAND							
MR. M.R.ANDEREGG, FINTEK MANAGEMENT SA, CLOS-DE-BULLE 11, 1004 LAUSANNE,SWITZERLAND	EP	ALL	94/01/25	28F	80		
THAILAND							
MR.D.PETROVIC,157/42 M9 SOI SS CENTRAL PATTAYA RD,PATTAYA CITY 20260,CHONBURI,THAILAND		ALL	94/01/25	29	81	Yugoslav Emigres	
UNITED KINGDOM, GREAT BRITAIN							
MR.FARRER, ACMA LTD,9 BIRCH CLOSE,ST.LEONARDS, NEAR RINGWOOD,HANTS BH 242QH,ENGLAND	F	EM	94/01/25	31	82		
MR. SAEED ACRAM, 86 WARWICK GARDENS, LONDON W14 8PR, ENGLAND	F	FOS	94/01/25	32	83	PRIV. INVESTOR	
MR.S.NANJI,ANGLO-AFR. MERCANTILE, 14 MAPLE LDGE,WHITEFIELD CLOSE,LONDON SW15 3SS,UK	F	FOS	94/01/25	33	84	PRIV. INVESTOR	
MR.CHRIS BALE, DATASTRIPE LTD, DOMAN RD, CAMBERLY, SURREY GU15 3DF, UK	F	O	94/01/25	34	85		
MR.F.DOWNIE,ERIEZ MAGNETICS LTD,BEDWAS HOUSE IND.ESTATE,NEWPORT,GWENT NP1 8PG, UK	M	F	94/01/25	35	86		
MS SARAH WILLIAMS, HAMBROS BANK, 41 TOWER HILL, LONDON EC2 4HA, UK	F	EM	93/12/06	36	87	Inv. bank	
MR.G.STOW,HARTEK LTD,5 BEVERLY COURT,FIVE ASH RD,MEDSTEAD NR ALTON,HANTS GU34 5EJ,UK	F	EFMS	94/02/03	37	88	MANY ADDRESSES	
MR.M.HENDRY,15 CASTLE GREEN, OATLANDS, WEYBRIDGE KT13 9QL, ENGLAND	F	O	94/01/25	38	89	CONSULTANT	
Mr.T.Frame,VP Honeywell Control Systems,New House Ind.Estate,Motherwell,Lanarkshire ML1 5SB, Scotl'nd	M	S	94/01/25	39	90		
Ms.Judith Ambrose, Linton & Hirst, Parsonage Rd, Straton St.Margaret, Swindon SN3 4RN, UK	F	E	94/01/25	41	91		
MR.GRON DAVIES,MASON & PTNRS, 17 HARRINGTON STREET, LIVERPOOL L2 4AB, UK	F	OS	94/01/25	42	92		
N.HUXLEY,N&N INTERNATIONAL,MONTROSE HSE,CLAYHILL IND.ESTATE,NESTON,ENGLAND L64 588	F	E	94/01/25	44	93		
MR.JULIAN RANKIN, ORA LIGHTING, WALMGATE RD, PERIVALE, MIDDLESEX UB6 7LX, UK		E	94/01/25	45	94		
MR. R.STOLLERY, ORMANDY & STOLLERY LTD, CHAPEL RD, BRIGHTLINGSEA CO7 0HB, U.K.	EP	ALL	94/01/25	46	95		
Mr.Pancholi, 41 Huntsmans Way, Leicester LE4 &ZG	EP	ALL	93/11/25	47	96	Private investor	
MR.MALCOLM BRICKNELL,PRIVATE BANK & TRUST CO,12 HAY HILL,LONDON W1X 8EE,U.K.	E	ALL	/9401/25	48A	97	Greek interests	
DR.BARBARA PAGE-ROBERTS,PRT GROUP LTD, 113 HIGH ST,ODIHAM,HANTS RG25 1LA, U.K.	F	E	94/01/24	49	98	To buy Electrostart	
MR.TOM CHADWICK,SMITH NEWCOURT,22 FARRINGDON RD, PO BOX 293, LONDON EC1M 3NH, U.K.		FOS	94/01/25	50	99		
MR. C.MCKAY, DIRECTOR, SUPER B LTD, GARRETT'S GREEN LANE, BIRMINGHAM B33 0YA, U.K.	EP	ALL	94/01/25	51	100		
MR.J.ARMSTRONG,TT GRP PLC,CLIVE HOUSE,12-18 QUEENS RD,WEYBRIDGE,SURREY KT13 9XB, U.K.	F	F	94/01/25	52	101	Int. in Feromagnet	
MR.JUSTIN BROWN, TT UK, 150 HOLBORN, LONDON EC1N 2NS, U.K.	F	O	94/01/25	53	102		
MR.J.HOWDEN-RICHARDS, WHITE HORSE GRP PLC, 86 GLOUCESTER PLACE,LONDON W1H 3HN, U.K.	F	S	94/01/25	54	103		
MR.CHARLIE KAY, ZETEX PLC, FIELDS NEW RD, CHADDERTON, OLDHAM OL9 8NP, U.K.		E	94/01/25	55	101		

54