

PN-ABP-194
02/1993



Project in Development and the Environment

USAID/Eastern Europe Environmental Business Development

April 1993

AID Contract Number:
ANE-0178-Q-00-1047-00
AID Project Number:
398-0365

Submitted to:
USAID/EUR/DR
Submitted by:
PRIDE

Sponsored by:
USAID/NE/DR/ENR
Operated by:
Chemonics International
and its associates

2000 M Street, NW, Suite 200, Washington, DC 20036
Telephone: (202) 331-1860 · Fax: (202) 331-1871

The objective of the Project in Development and the Environment (PRIDE) is to help the U.S. Agency for International Development (AID) design and implement programs that foster the agency's environmental and natural resources strategy for sustainable economic growth in the Near East and Eastern Europe.

PRIDE provides AID and participating countries with advisory assistance, training, and information services in four program areas: (1) strategic planning, (2) environmental policy analysis, (3) private sector and NGO institutional strengthening, and (4) environmental information, education, and communication.

The project is being implemented by a consortium selected through open competition in 1991. Chemonics International is the prime contractor; subcontractors include RCG/Hagler, Bailly, Inc.; Science Applications International Corporation; Capital Systems Group, Inc.; Environomics, Inc.; Industrial Economics, Inc.; Lincoln University; and Resource Management International, Inc. In addition, AID has entered into a cooperative agreement with the World Environment Center to support implementation of PRIDE.

The opinions expressed in this paper are those of the author(s) and do not necessarily reflect the positions of the sponsoring agency or contractors.

INTRODUCTION

The development of an environmental goods and services sector in Eastern Europe is a key element to stimulating the expansion of the free market system in the region and improving environmental conditions. The American Business and Private Sector Initiative Project provides technical assistance and funds for long-term capital development that will lead to environmental investments by the private sector. The Capital Development Initiatives component of this project provides for technical assistance and a feasibility fund to encourage private sector development in East Europe, including the environment sector.

At the beginning of 1992, the USAID Project in Development and the Environment (PRIDE), in support of the American Business and Private Sector Initiative Project and the Capital Development Initiative, sent Dr. Kenneth Macek to Poland for one year as an Environment Business Specialist to provide technical assistance to the private environmental business sectors in Poland, the Czech and Slovak Republics and Hungary.

This technical assistance was to be in the form of identifying firms in the environmental sector suitable for enterprise strengthening. Once the firms were identified, Dr. Macek assisted the firms in accessing sources of credit and capital available from the CDI, other Eastern European venture funds, U.S firms and technologies, and/or joint ventures. Dr. Macek assisted the firms in the preparation of proposals, prospectuses and other documentation necessary for gaining access to the available funds.

The following reports are the results of Dr. Macek's one year as the Environmental Business Specialist. These reports include market assessments and investment proposals for key environmental businesses in Eastern Europe, as well as a possible joint venture with a U.S. firm. These reports have been submitted to the appropriate venture sources and USAID. They are being compiled in this binder as a reference source for future joint venture/funding projects.

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KENNETH J. MACEK

ul. Nowiniarska 1, m 28
00-235 Warsaw, POLAND
PHONE/FAX (48-2) 635-4531

December 30, 1992

Mr. Charles Huebner
Director
HUNGARIAN AMERICAN ENTERPRISE FUND
East-West Business Center, 6 fl.
Rakoczi ut 1-3.
H-1088 Budapest, HUNGARY

Dear Mr. Huebner:

Pursuant to our discussions of the past few months, I am pleased to enclose three (3) copies of an Investment Proposal from HYDROCOR Kft. of Budapest. I worked together with the company's management over a period of several months to develop an understanding of their technology, business, and competitive situation. I also have assisted them in the preparation of the enclosed investment proposal.

During our discussions you mentioned that technical assistance during your due diligence activities could be very helpful. The World Environment Center (WEC), New York, is very active, in the region, providing technical assistance on waste management issues. I have requested them to identify an appropriate western expert to provide the Fund with an assessment of the company's paint sludge processing technology. I will forward the references to you as soon as I receive a response from WEC.

I trust you'll find my inputs helpful in evaluating the enclosed proposal from HYDROCOR. If I can be of further assistance to you, or your staff, during your evaluation of this proposal, please don't hesitate to contact me.

Sincerely,



Kenneth J. Macek, Ph.D.
Environmental Business Advisor,
Central Europe

INVESTMENT PROPOSAL

Submitted to:

**THE HUNGARIAN-AMERICAN ENTERPRISE FUND
BUDAPEST, HUNGARY**

Submitted by:

**HYDROCOR, Kft.
1142 Bp. Kassai ter. 34
Tel: 251-0677 / Fax: 252-2987**

JANUARY, 1992

DISCLOSURE

The U. S. Agency for International Development (AID) provides a Resident Environmental Business Advisor (the Advisor) to the private environmental business sectors in the Czech and Slovak Republics, Poland, and Hungary.

The Advisor's goal is to assist private environmental businesses to improve their competitive market position. The Advisor focuses primarily on "enterprise strengthening" activities. He first screens the environmental business sector to select domestic firms deemed suitable. This selection process targets firms that appear to have (a) identified market needs; (b) established real competitive advantages; and (c) developed a strategy to leverage its advantages into significant market penetration. He then assists those domestic firms to access sources of credit and capital, U.S. technologies, and/or joint-venture partners.

The Advisor assisted the management of HYDROCOR (the Company) in the preparation of this Proposal by suggesting the types of information required by the Fund and preparing the Executive Summary. The Proposal supports the Company's request to the Hungarian-American Enterprise Fund for credit and/or equity investment. The Advisor intends that the information, contained herein, assist the Fund in evaluating HYDROCOR's request by describing its business, competitive advantages and strategy in typical western management terms.

The material concerning the Company's technology, proposed project, business, markets and strategy reflects the understanding of the AID Advisor resulting from (a) representations made to him by the management of HYDROCOR, Kft.; (b) his understanding of the current environmental conditions in Hungary; and (c) his familiarity with the environmental services sector.

The Advisor provided assistance to the Company under a contract with the U.S. Agency for International Development. The Advisor's assistance does not represent, nor does it imply, endorsement of the Company's request by the U.S. Government. The Advisor assumes that the Hungarian-American Enterprise Fund will conduct its normal due diligence activities before taking any action concerning the Company's request for credit.

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EXECUTIVE SUMMARY

HYDROCOR Kft. (the Company) provides proprietary volume reduction and pyrolysis technology for processing waste paint (sludges) remaining after spray painting operations. Recent studies by the International Bank of Technical Development (Budapest) estimate that, due to the lack of a suitable disposal alternatives, there may be more than 3 million tons of such sludges currently stored in Hungary.

The Company currently manufactures and sells mobile and stationary waste processing systems. The standard systems have the capacity to process 400 tons/year. Customers are the producers of paint wastes, or operators of regional waste paint processing facilities (e.g. in Germany). HYDROCOR's process also reclaims secondary raw materials (zinc and titanium) which can be resold to paint manufacturers. Although these reclaimed material are not suitable for the production of virgin paints, they are suitable for the production of paint primers.

The Company is applying to the Enterprise Fund for a combination of credits and/or equity investment of HUF 82 Million. HYDROCOR proposes to utilize the funds to construct and operate a 2000 tons/year paint waste processing facility in Hungary. It estimates that the total cost of such a waste processing facility will be HUF 165 Million. HYDROCOR will invest approximately HUF 33 Million of it's own funds. As the project contributes to the solution of a significant environmental problem, it is eligible for grant support from the Ministry of Environment & Regional Development. The Company will apply for a grant of HUF 50 Million under this program to complete the project financing.

The wastes that the Company's technology processes are currently classified, by law, as hazardous wastes. Producers of such wastes are required, by the law, to safely dispose of these wastes within one year, or pay significant annual fines until they dispose of the wastes. Many of the Company's potential customers have indicated that they are unwilling or unable to justify the significant capital investment to purchase and operate HYDROCOR's processing equipment. However, most expressed a desire to be able to pay, out of their annual operating budgets, to have their paint wastes safely disposed of (processed) at a facility in Hungary.

HYDROCOR intends to leverage its competitive advantages to become the market leader in the safe disposal of hazardous paint wastes in Hungary. The competitive advantages of the Company's proprietary technology include recovery and reuse of valuable components of the wastes, reduction of net energy consumption, and no waste production.

Currently, the Company is unaware of any domestic or foreign direct competitors. The only feasible alternatives to the Company's processing technology for paint waste disposal are (a) storage (not disposal) of the waste at a designated hazardous waste site, or (b) waste incineration (without recovery of secondary raw materials). This latter alternative is not available to many paint waste producers as the solvent content of their waste exceeds acceptable limits for incineration at the only existing hazardous waste incinerator (Dorog).

HYDROCOR's strategy is to make it economically more attractive for the waste generators to send their wastes to the Company's processing and recovery facility than to (i) pay the fines for continued storage on site; (ii) to pay the fees for storage at designated hazardous waste sites; or (iii) pay the fees for waste incineration (when possible).

This Proposal describes in detail:

- (1) HYDROCOR'S proprietary waste processing technology (See Figure 1);
- (2) the major customers and the estimated annual volume of paint wastes produced;
- (3) the end uses for the Company's products and proposed services;
- (4) the Company's competitive advantages;
- (5) a proposed financing plan and project completion schedule; and
- (6) company financial history and *pro forma* financial statements.

1. PRODUCT

1.1 'PIGMENT 400' Paint sludge processing line.

1.1.1 The purpose of the processing line is to process the paint sludge of spray finishing. The sludge is previously separated by a water screen, settled and dehydrated mechanically.

1.1.2 Capacity of the processing line is 400 tons/year and multiples thereof.

1.1.3 The processible sludge:

1.1.2.1 Moisture content : 50-65 %

1.1.2.2 Organic (resin) content : 15-75 %

1.1.2.3 Solvent content : 3 % max.

2. USES OF THE PRODUCT

2.1 Mobile model

2.1.1 To process the paint sludge produced by workshops locally. The end user in this case is the operator of the workshop, where the sludge is produced.

2.2 Stationary model

2.2.1 To process the sludge collected by the regional waste processing centres.

The user can be any organisation or individual who buys the equipment.

The end user in this case is the owner of the processing line. The latter can also be the operator of the waste processing centre. In the case of a leasing, the end user is the entrepreneur who rents the line.

2.3 The processing line produces a secondary raw material out (

it also saves energy, because the process is maintained by the combustion of the organic materials contained by the paint sludge. The remaining metal oxides can completely be used up in the production of various coatings, such as priming paints, underspraying compounds for vehicles, insulation coatings for roofs and other purposes, or as filling aggregates.

The quantity of the secondary raw material which is produced by this process is approximately 15 % of the paint sludge (of 50 % water content), which also means that 7.5 % of the hazardous waste is utilised as a secondary raw material; the remaining water is evaporated, the organic compounds are incinerated.

3. CUSTOMERS

The following can be regarded as potential customers:

- 3.1 Domestic manufacturers who have to eliminate large amounts of paint sludge every year, such as the Hungarian Suzuki, Opel, Rába and Ikarus.
- 3.2 Foreign manufacturers
- 3.3 Foreign operators of waste processing centres
- 3.4 Foreign entrepreneurs who eliminate hazardous waste materials for a commission fee
- 3.5 One should also regard as potential customers those who intend to operate paint sludge processing lines in the Far East or overseas; it would make sense to conclude a license agreement with them.

For domestic uses and with appropriate locations it would be advisable to erect processing plants. The owner and operator of these plants would be HYDROCOR Ltd.

We have the following ideas as to the locations:

- Mór, the former soviet barracks,
- Győr, Rába Vagon és Gépgyár Rt. (Rába Waggon- and Machine Factory Joint Stock Company)
- Székesfehérvár, VIDEOTON Joint Stock Company or IKARUS Joint Stock Company
- Esztergom, Hungarian Suzuki Joint Stock Company

4. COMPETITORS

4.1 We are not aware of any companies owning a technology similar to this one, but as soon as the domestic processing plants have been erected, the fee payable by the customer for the processing of the sludge on the PIGMENT 400 line will be affected by the actual prices of those operating

- other elimination methods
- incinerators
- waste storage centres

4.2 Indirect competitors:

4.2.1 Dorog Waste Incinerator Ltd.

4.2.2 Aszód Storage Centre for Hazardous Wastes

Sales up till now:

We have sold one complete line in Germany. The details of the deal are the following:

- Manufacturing and installation : DEM 250,000.-
- Value of parts supplied by the customer under temporary customs admission, approximately : DEM 250,000.-
- Starting-up and trial runs : DEM 50,000.-

Foreign competitors:

As to the best of our knowledge there aren't any. The invention which is a result of our research and development work, has been patented in five countries:

Austria, the United Kingdom, France, Liechtenstein, Germany and Switzerland.

In these countries none of the investigations have revealed any technologies or equipment that could impair the novelty of our product.

5. COMPETITIVE ADVANTAGES:

As mentioned above, we have no information of any competitors, so let us outline the advantages of the products below:

- 5.1. The final product of the technology is a secondary raw-material
- 5.2. The processing saves energy, because after the system has been heated to its operating temperature the combustion is

self-supporting, by means of the incineration of the organic contents of the sludge.

- 5.3. No waste is produced during the process
- 5.4. The composition of the smoke-gases of the process are in agreement with the most stringent European regulations (TALuft, BimSchG, DIN and VDE).
- 5.5. The processing line is automated, does not require continuous control, only supervision.

In order to secure the continuous analysis of the paint sludge to be processed, it is necessary to have an on-site laboratory equipped with appropriate instruments and qualified staff. This is indispensable.

Further advantages:

- Heating up can be achieved either with natural gas or mineral oil, which are comparatively cheap
- The costs of operation are tolerable, but not low
- The approximate endurance is 8-10 years
- Some of the parts can be replaced by those available in the customers' country, which means cost and time saving in maintenance, servicing and replacement.

Warranty:

1 year from the date of starting-up.

Limits of suitability:

- The "Pigment 400" paint sludge processing line
- has a limited capacity compared to the size of a waste processing centre or that of a waste material incinerator, i.e. falls into another order of magnitude
 - is only suitable for the processing of paint sludge of strictly specified composition and moisture content.

6. DRIVING FORCES

In countries where the environmental laws are enforced and there is sufficient investment capital, the producers of paint sludge wish to eliminate this waste material at the lowest possible cost and with respect to the environment. The traditional way of elimination of paint sludge is to store it in hazardous waste collection centres or to incinerate it, depending on the composition of the source paint. Both methods are expensive.

In comparison to these costs the operation of a PIGMENT 400 paint sludge processing line are favourable. When the owner of the processing line is not the producer of the paint sludge,

- the drying and pyrolysis can be done at first-cost prices,
- and the resulting secondary raw material means a substantial additional source of income.

This is the purpose of the so-called mobile processing line, which has been developed by HYDROCOR Environmental Ltd.

This line is housed in a container and can be moved to any new location or sold as the need arises, when there is no more paint sludge to be eliminated at the given location.

Other entrepreneurs will be driven to buy the processing line in a view of making profit. Apart from the mobile version they can also operate stationary processing lines of larger capacities to serve regional demands.

There is legislation in Hungary specifying the elimination of hazardous waste materials. The authorities are in a position to enforce these regulations, but there are not enough sound enterprises to serve the needs of the public in this respect. As a result of this fact and because the law facilitates it, HYDROCOR Ltd. is seeking to contact foreign partners willing to invest capital who would establish one or more Paint Processing Plants with the help of state subventions.

This plan seems to be supported also by the fact that according to the results of a study made by the OMFB (International Bank of Technical Development) in April 1992 - and which are in close agreement with our own market research data - that the technical requirements in Hungary are higher than the solvent demand of the customers.

The study also mentions the amount of varnish- and paint sludge to be found in various parts of the country:

(For more details see: OMF 9-9103-T Veszélyes hulladékok kezelése (Handling of hazardous waste materials), April 1992). According to the data we have collected so far the amount of sludge generated by some of the major producers is as follows:

	tons/year
MÁV Járműjavító Uzem, Szombathely	20
Mezőgazdasági Gépgyár, Szolnok	30
BHG Híradástechnikai Vállalat, Budapest	30
Hajdúsági Iparművek, Téglás	100
Magyar Vagon és Gépgyár, Győr	120
Ikarus Járműgyártó Rt.	600
Magyar Suzuki Rt., Esztergom	1,518
Hűtőgépgyár, Jászberény	100

	2,518

(Budapest, 14th October 1992)

This amount exceeding 2.5 tons can be stored up to one year on the own premises of the producers, after which period they are compelled to eliminate it.

7. MARKET

7.1 Hungarian market

7.1.1 Manufacturers of 300-400 tons/year or more paint sludge can economically operate a drying or pyrolysis equipment, such as:

Hungarian Suzuki

Rába-Opel

Ikarus etc.

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7.1.2 For producers of a smaller quantity or those who in the near future intend to change for another technology which does not produce any sludge, it is more sensible to hand over the sludge to the operators of a paint sludge processing plant.

7.1.3 The own processing plant intends to buy a "PIGMENT 400" processing line.

7.2 Foreign market:

7.2.1 The same as above

7.2.2 The operators of regional waste collection centres

7.2.3 Other entrepreneurs who wish to embroad their scope of activity and who are already active in the field of waste elimination

7.2.4 Entrepreneurs who seek to make a living solely on this activity.

8. FINANCIAL

HYDROCOR Environmental Ltd. was founded in the second half of 1990. The fact that the company has not had any other activities prior to this one is reflected in its financial situation. After the balace deficits of the first one and a half years the balance of the first half of 1992 shows a profit of HUF 1,540,000. The balance by the end of this year will be approximately HUF 0.

The financial plans of the following three years base on the incomes generated by two major activities:

1. Sales and
2. Processing.

8.1 As to sales: The German co-owner of the company - who has the right sole agency for Western Europe - has undertaken in the Company Agreement to sell 5-10 processing lines in 1993. Apart from sales we have to conduct an intensive research in order to determine the feasibility of processing paint sludge with a basis other than water. We also have to begin searching for other technologies and equipment suitable for processing other types of paint waste materials and dead paints.

For the sake of better understandability let us explain the financial balance of HYDROCOR Ltd. from two sides.

As a first step we would like to disclose the sales plans concerning the PIGMENT 400 processing line for the years 1993-95: (see next page)

HYDROCOR Kft. - Budapest
Project Financing Proposal

Hungarian-American
Enterprise Fund

	1993	1994	1995	1993-95
Turnover (x 1,000 \$)	1,250	2,750	4,400	8,400
Production (x 1,000 \$)	937.5	1,968.75	2,953.13	5,859.38
Gross profit margin (x 1000 \$)	312.5	781.25	1,446.87	2,540.63
Per Cent	25	28.4	32.88	30.25
<u>Remark:</u> Calculated on current prices				
R & D (x 1,000 \$)	37.5	82.5	132	252
Advertisements (x 1,000 \$)	12.5	27.5	44	84
Administrative expenses (x 1000 \$)	62.5	374.54	533.76	1,970.80
Profits (x 1000 \$)	112.5	296.71	913.11	1,322.32
Per Cent	9	10.79	20.75	15.74

Remark: The realisation of the above financial plan is dependant on the number of processing lines sold.

And finally we would like to explain the plans of HYDROCOR Ltd. as to the Processing Plant for the years 1994-95:

(See next page)

*HYDROCOR Kft. - Budapest
Project Financing Proposal*

*Hungarian-American
Enterprise Fund*

	1994	1995
Turnover (x 1000 Ft)	111.000	121.000
Production (x 1000 Ft)	81.340	87.670
Profits (x 1000 Ft)	29.660	33.330
Per Cent	26,72	27,55

Remark: 1. Calculated on current prices.

2. This annual financial plan is valid only in case no PIGMENT 400 paint sludge processing plants are sold. In this case the enterprise has 25 employees: 5 persons in the Budapest management and 20 factory hands.

Characteristics of a thermal paint-
processing plant with a capacity of
2000 tons/year

In the Hungarian industrial plants there is a large quantity of technological paint sludge generated and/or stored idly every year. The separate quantities of accrued and idly stored paint sludge exceed several tons. Processing of this 'Class A' Hazardous Waste Material is an unsolved task both in Hungary and in other parts of Europe.

HYDROCOR Environmental Ltd. is in the possession of a technology that eliminates the majority of these paint sludge without any remaining wastes. The industrial realisation of this technology has begun, the first paint sludge processing line has been sold to Germany and is being operated continuously.

It seems to make sense to build a plant in Hungary that is suitable for the processing of the large quantities of paint sludge mentioned earlier. As a first step we believe it would be necessary to build a high-capacity plant.

Technical specification:

The processible poisonous waste material is a semi-dry technological paint sludge of medium or low solvent contents.

Capacity of the processing plant:

2,000 tons/year of paint sludge specified as above.

The final product:

300 tons of industrial, mixed, pigment-like secondary raw material.

Description of the processing system:

The plant comprises 3 parts:

- Raw-material pre-treatment system
- Pyrolysis system
- Environmental system (end-gas scrubber)

Use of the final product:

- In priming paints
- Insulating materials
- Underspraying compounds for vehicles and as
- Filling aggregates in other products.

Estimated schedule of construction:

- | | | |
|-------------------------------|---|-------------------|
| - Beginning - execution phase | : | 1st March 1993 |
| - Completion | : | 31st October 1993 |
| - Opening up | : | 2nd January 1994 |

Preparation of construction:

- | | | |
|---|---|-------------------|
| Conclusion of the contract with the Hungarian-American Enterprise Fund | : | 10th January 1993 |
| Conclusion of the contract with the Ministry for Environment and Regional Development | : | 10th January 1993 |
| Planning | : | 1st February 1993 |

Completion of manufacturing of the plant:	30th September 1993
Completion of erection of the plant :	30th September 1993
Beginning of trial runs :	20th November 1993
End of trial runs :	31st December 1993
Opening up :	1994

Description of the project

Construction site:

The construction site can be in several locations, see the opening paragraphs, such as Székesfehérvár, Esztergom, Győr, Mór.

Size of building area:

2,000 m², fenced around. The enclosed area of the plant is located on a reinforced concrete tray with a flange. The access to the area is gained via an interconnecting road and through a gate to be opened and closed manually.

Technological building:

To be built on an area of 400 m² (20 x 20 x 6 m), it is heat insulated, pre-manufactured, supported by a steel framework, heatable and ventilated.

In the technological building there is the drying, pyrolysing and gas-scrubbing system. It also serves as a container storage facility for the amount of paint sludge needed for the continuous operation.

It also houses the office, a laboratory, the dust-free packaging unit, the maintenance workshops, service magazine and the sanitary rooms, approximately 115-120 m² on two storeys.

Storage area:

For the warehousing of the full and empty containers there is a storage area of approximately 400 m².

There is a weighing bridge, a gas-reception unit, a blowing plant, a parking lot for the trolleys, a finished product storage area and a waste water tank.

The combined wherewithal of the
project

	Thousand HUF
Architecture :	57,100
Engineering :	72,000
Means of transport :	3,500
Planning fees :	2,500
Costs of invitation of tenders :	900

	136,000
Amortisation (approx. 20 %) :	27,000

	163,000
Rental fee of the area (200 x 500 HUF / m ² / year) :	1,000

	164,000

Income sources to cover the costs of the project - 1992

Own resources	:	20 %	32,800
Environmental Fund (Ministry for Environment and Regional Development)	:	30 %	49,200
Hungarian-American Enterprise Fund	:	50 %	82,000
		-----	-----
		100 %	164,000

Precondition of completion of the project:

THE INVESTMENT ASSETS MUST BE LIQUIDATED/TRANSFERRED IN
APPROPRIATE SUMS AND TIME INTERVALS.

HYDROCOR Kft. - Budapest
Project Financing Proposal

Hungarian-American
Enterprise Fund

Calculation of current assets:

Number of staff	:	20 employees
		<u>Thousand HUF</u>
Wages (HUF 35,000/pers/month x 20 x 12)	:	8,400
Social Insurance Fee (50 %)	:	4,200
Materials and energy	:	24,000
Maintenance, repairs, renewal rate	:	8,200
Miscellaneous	:	<u>2,400</u>
		Thousand HUF / year: 37,000

Calculation of sales returns:

Capacity	:	2,000 tons/year
Specific delivery price	:	HUF 45,000/ton
		<u>Thousand HUF</u>
Sales return (2,000 tons x HUF 45,000)	:	90,000
Pigment (300x70,000)	:	<u>21,000</u>
		Thousand HUF / year: 111,000

Gross balance:

	<u>Thousand HUF</u>
	111,000
	<u>- 64,000</u>
	Thousand HUF / year: 47,000

Index of return:

$$\frac{136,000}{47,000} = 2,89 \text{ years}$$

Budapest, 30th November 1992



BORZA György
manager

FIGURE 1A

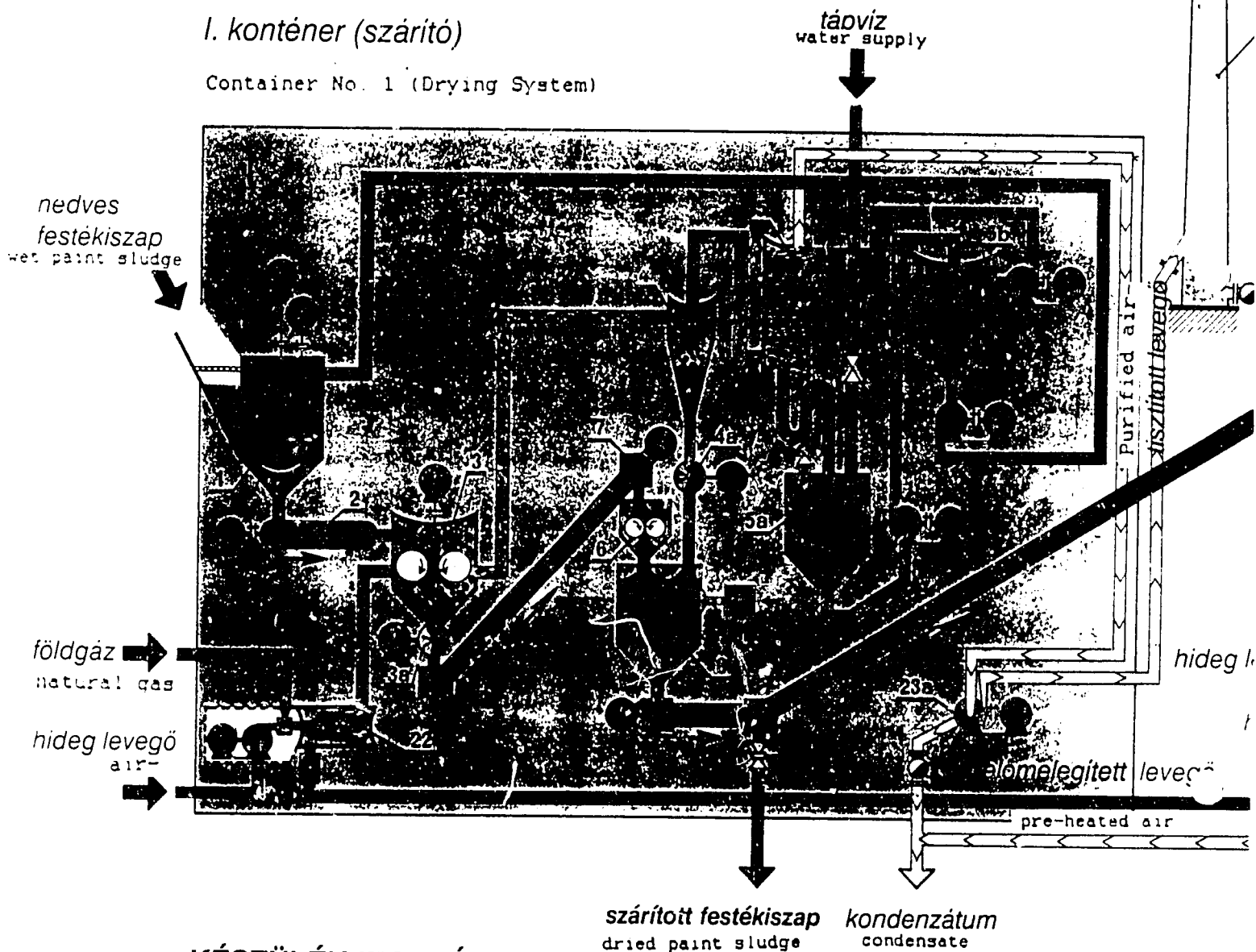
PIGMENT 200

PIGMENT 400 Technological Flow-Sheet
PAINT SLUDGE PROCESSING LINE

Technológiai folyamatábra

I. konténer (szárító)

Container No. 1 (Drying System)



KÉSZÜLÉKJEGYZÉK

LIST OF EQUIPMENT

Container No. 1. (Drying System)

- 1.a Paint sludge receiving tank
- 2. Screw feeder
- 3. Dryer
- 4. Cyclone
- 4.a Cell feeder
- 5.a Settling tank
- 5.b Pulp separator
- 6. Cylindrical cutter
- 7. Spring actuated transporter
- 8. Container for dried paint sludge
- 22. Smoke-gas feed-in and gas burner
- 23.a Ventilator

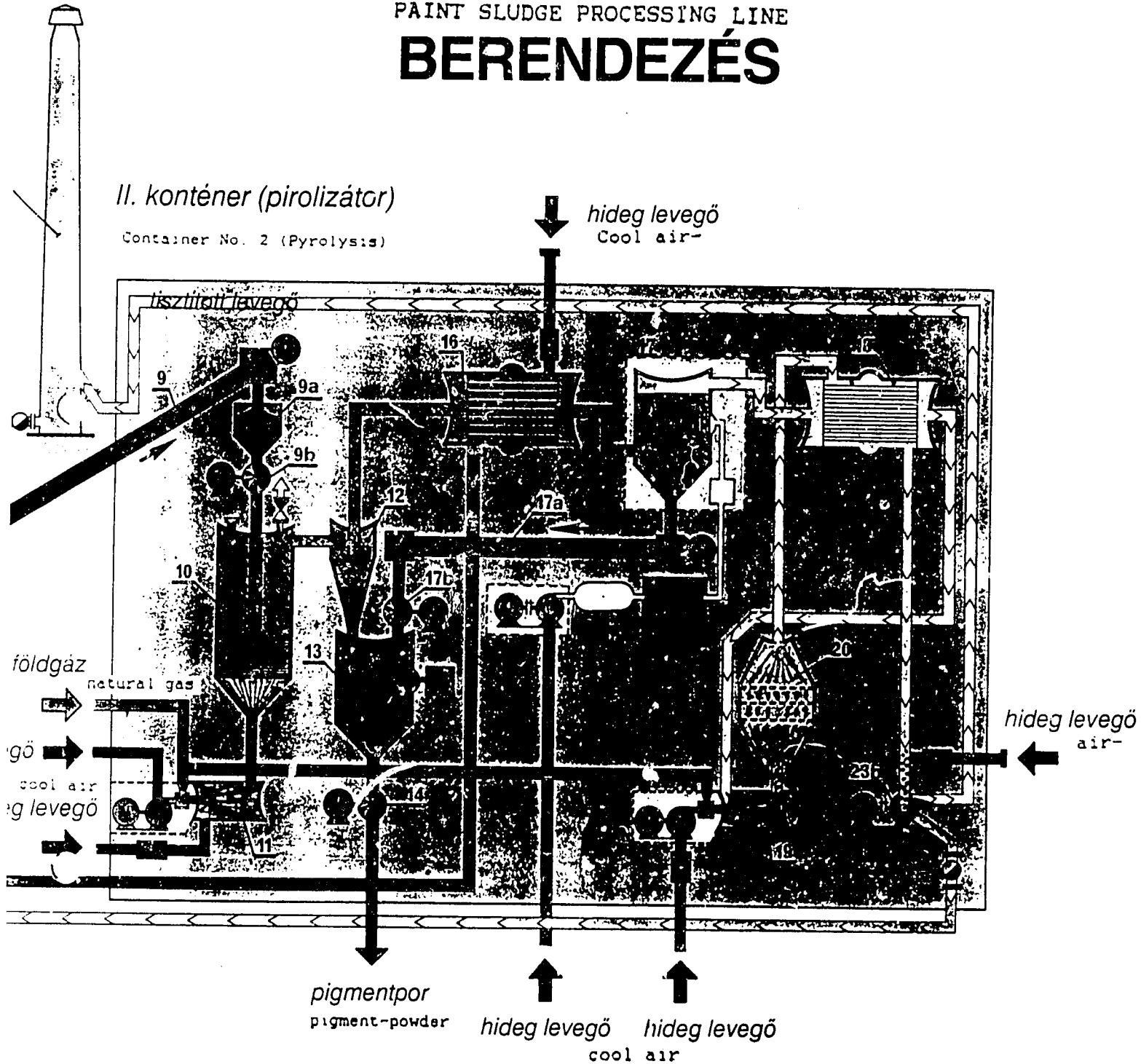
Container No. 2.

- 9. Spring actuated transporter
- 9.a Feed-in container
- 9.b Heat resistant cell feeder
- 10. Pyrolytic reactor
- 11. Smoke-gas feed-in and gas burner
- 12. Cyclone
- 13. Pigment container
- 14. Cell feeder
- 16. Heat exchanger
- 17. Sack dust-filter
- 17.a Spring actuated transporter
- 17.b Cell feeder
- 18. Heat exchanger
- 19. Smoke-gas feed in and gas burner
- 20. Catalytic reactor
- 23.b Ventilator

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FIGURE 1B

FESTÉKISZAP FELDOLGOZÓ PAINT SLUDGE PROCESSING LINE BERENDEZÉS

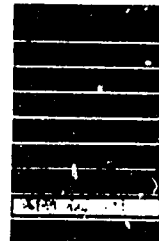


LEGEND:

- Area of containers-
- Wet paint sludge-
- Dry paint sludge-
- Granulate (sludge or pigment)-
- Cool air-
- Pre-heated air-
- Air containing dust-
- Purified air-
- Water supply-

JELMAGYARÁZAT

- Konténeres berendezés területe
- Nedves festékszapp
- Száraz festékszapp
- Granulátum (iszap, vagy pigment)
- Hideg levegő
- Előmelegített levegő
- Poros levegő
- Tisztított levegő
- Tápvíz



HYDROCOR Environmental Ltd.

APPENDIX

HYDROCOR Ltd.

TECHNICAL DESCRIPTION

of a paint-processing plant with a
capacity of 2000 tons/year

Budapest, November 1992

Name of the company: HYDROCOR Ltd., Budapest

As a result of the characteristics of the process the plant is designed to be operated ten months a year in a continuous, four-shift working order, with 3 operators per shift and a plant manager, a plant clerk, one shift-leader and two laboratory technicians.

Description of the technological process

The paint sludge that is received by the plant in closed containers has a moisture content of 50-60 %.

A sample is taken from each container and the chemical characteristics of the contents are determined by means of analysis. Only sludge with a composition complying with the specifications can be processed.

The sludge to be processed is placed into the contact-dryer, where it is dried and granulated by means of a counter-current air flow which has been pre-heated with the waste heat of the pyrolysis reaction.

The dehydrated paint-sludge powder is carried away from the dryer by an air-flow. In this transport-section of the system there is also a sizing-screen that separates any bigger lumps from the powder. These are then crushed by a hammer-mill and then carried back to the main stream.

KENNETH J. MACEK

TMS Management Consulting, Inc.
ul. Nowiniarska 1, m 28
00-235 Warsaw, POLAND

PHONE/FAX (48-2) 635-4531

January 4, 1992

Dr. Bronislaw Kaminski, Chairman
PROEKO
ul. Krzywickiego 34, room 233
02-078 Warszawa, POLAND

Dear Dr. Kaminski,

Enclosed find three copies of my assessment of the municipal environmental consulting, management and engineering services market in Poland.

As will be evident from the report, all of the information that I collected confirmed your assessment of the market, the customers, and the basis upon which environmental services will be procured by municipal officials in the future.

I trust this information will be helpful in bringing ProEko's negotiations regarding a joint-venture with Science Applications International Corporation to a successful conclusion.

Sincerely,



Kenneth J. Macek, Ph.D.
Environmental Business Advisor
Central Europe

Enclosure

MARKET ASSESSMENT

THE MUNICIPAL ENVIRONMENTAL CONSULTING & ENGINEERING SERVICES MARKET : POLAND

Prepared by:

KENNETH J. MACEK, PH.D.

ENVIRONMENTAL BUSINESS ADVISOR
CENTRAL EUROPE

Prepared for:

PROEKO Ltd.

ul Krzywickiego 34/233
00-078 Warsaw, POLAND

JANUARY, 1993

32'

DISCLOSURE

The U. S. Agency for International Development (AID) provides a Resident Environmental Business Advisor (the Advisor) to the private environmental business sectors in the Czech and Slovak Republics, Poland, and Hungary.

The Advisor's goal is to assist private environmental businesses to improve their competitive market position. The Advisor focuses primarily on "enterprise strengthening" activities. He first screens the environmental business sector to select domestic firms deemed suitable. This selection process targets firms that appear to have (a) identified market needs; (b) established real competitive advantages; and (c) developed a strategy to leverage its advantages into significant market penetration. He then assists those domestic firms to access sources of credit and capital, U.S. technologies, and/or joint-venture partners.

The Advisor has assisted the management of ProEko (the Company) in developing a business plan and in other aspects of its negotiations with potential U.S. joint-venture partners. He prepared this Market Assessment to strengthen ProEko's efforts to complete successfully such negotiations.

The material concerning the Company's business and potential markets reflects the understanding of the AID Advisor resulting from (a) representations made to him by the management of ProEko; (b) his understanding of the current environmental conditions in Poland; (c) his familiarity with the environmental services sector in the region; and (d) representations made directly to him by various government officials at the federal, *Wojewoid* (state), and *miasto/gmina* (city/town) levels of government, and by U.S. companies.

The Advisor provided assistance to the Company under a contract with the U.S. Agency for International Development. The Advisor's assistance does not represent, nor does it imply, endorsement of the Company by the U.S. Government. The Advisor assumes that potential U.S. joint-venture partners will conduct their normal due diligence activities before formalizing any relationship with ProEko.

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EXECUTIVE SUMMARY

ProEko is a Polish environmental consulting, management and engineering firm based in Warsaw. The company's strategy includes combining its resources with a U.S. environmental consulting firm to address the emerging municipal market for environmental consulting services.

In Poland, environmental investment has increased dramatically during the past two years, with the annual investment exceeding \$1 billion. Unlike most of its neighbors in Central Europe, Poland self-finances more than 90% of its environmental investment. The government expects the annual level of environmental investment to increase throughout the remainder of the decade. The Environmental Business Advisor estimates that annual growth rates will be a minimum of 5%-10%, and could reach 20% if Poland succeeds in its negotiations for additional Ecoconversion of its foreign debt.

Recently the government has shifted the responsibility for environmental investment decisions and financing from the central government to the municipalities. Today, no matter how large or small the municipality, the mayor appears to make all of these decisions. There are only two real criteria for making these decisions, especially the decision regarding the supplier of environmental services. The first is assistance in financing. The other is apparently the personal relationship between the consultant and the customer, with a clearly stated preference for domestic firms.

For foreign firms, only two alternate strategies exist for successfully penetrating that market. One alternative is a "greenfield" strategy, where the foreign firm is willing to invest 3-4 man years and significant sums of capital to establish credible personal relationships with a large and often unsophisticated customer set. The other alternative is a joint-venture with a credible and highly visible Polish firm in order to leverage its existing personal relationships with the municipal customers into significant market share.

INTRODUCTION

Recently, the Polish government implemented a program to decentralize responsibility for implementing environmental programs (e.g. solid waste management) and environmental infrastructure projects (e.g. water and wastewater treatment) to local governments. This program included decentralization of project management responsibility and project financing, subjects about which local officials are relatively inexperienced.

ProEko was established specifically to respond to the need, among municipal officials, for credible environmental consulting, management, financing and engineering services. ProEko envisions providing those types of services to assist municipal officials in setting environmental priorities, evaluating alternative environmental technologies, devising creative financing mechanisms, and managing, designing and/or implementing environmental infrastructure projects.

The current management and staff of the Company is qualified to provide many of these services. Dr. Kaminski, the Chairman, is eminently visible and credible in this market. Polish customers recognize him as a person familiar with environmental priorities, sources of financing, and technical expertise. However during this period of dynamic change, ProEko believes that it can enhance its penetration of the municipal market, by cooperating with an experienced, recognized international environmental consulting firm.

During serious negotiations with one such potential U.S. partner, the partner requested additional information on the market segment targeted by ProEko's. Specifically, the U.S. company asked for *objective* information relating to (a) the customers need for environmental services; (b) their familiarity with both foreign and domestic providers of such services; (c) sources of funding for local projects; (d) the process for procuring such services, and (e) the nature of the decision process and decision criteria.

To assist both ProEko and its potential partners during their negotiations, this assessment provides information regarding these issues. Personal interviews with local and regional officials, as well as U.S. competitors, form the principal basis for the author's views and conclusions contained herein. Appendix I lists the author's sources of information.

MARKET FACTORS

In order to appreciate and understand the depth of Poland's political and financial commitment to restoring and preserving its environment, it is helpful to understand how it differs from other countries in the region.

General Economic Trends

Poland instituted its plan of "shock therapy" in 1989, slashing price subsidies, making the country's currency convertible in world markets, and forcing citizens to cope with a drastic decline in buying power. Now the government's austerity program has begun to pay off. Poland is the only country of the former Eastern bloc whose economy has stopped declining, after drops in the GDP of 12% in 1990 and 8% last year. This year the government expects no growth but, significantly, no further decline (this despite a severe summer drought). The forecast is for modest growth (2-3%) in Poland's GDP in 1993. Even in Hungary, generally considered the best "managed" country in the region, industrial production fell by almost 20% during the first half of 1992, and economists expect a decrease of 3-5% for the full year.

Although the flow of foreign investment into Poland is slower than into other former Soviet bloc countries, the development of the private sector there continues unabated. Currently the government estimates that the private sector employs approximately 50% of the total work force in the national economy, and provides 45% of the GDP. Unemployment, after reaching a level of 18% last year, is steady at around 12%. Poland's trade balance, which showed a deficit of \$330 million last year, is heading toward a \$750 million surplus in 1992, and an estimated \$1 billion in 1993. Inflation (@ 40% in 1992) is still a problem, but is forecasted to decline by about 10% next year.

Political Environment

The oxymoron "unstable paralysis" characterizes the Polish national government, with its large number of fractious political elements. This is particularly true when compared to the relatively stable governments of its neighbors (e.g. Hungary, the Czech Republic, etc.) However, despite this political gridlock, Poland appears farther along than its neighbors in addressing its environmental problems.

The author believes that this is the result of the Roundtable discussions of 1989 between Solidarity and the newly formed democratic government. Unlike its neighbors in the former East bloc, Poland maintained a powerful popular front (Solidarity) while forming its new democracy. This front insisted that the government place environment on a "level" equal to other major political, economic and social issues. It proposed such concepts as the National Fund for Environmental protection and the Environmental Protection bank. By serving as a driving force for the environment, Solidarity assured that Poland would not lose sight of the need to take the actions required to develop and implement a proactive environmental policy.

Legislative Environment

It is not the author's intent to amplify here the litany of environmental policy choices, legislative actions and environmental regulations that currently drive the emerging environmental markets in Poland. Rather, it is important to note two fundamental differences between the environmental legislative environment in Poland and that in its neighboring countries.

First, Poland was diligent in including fundamentally sound economic mechanisms in every major environmental policy decision and legislative action. Thus, it is not necessary for Poland to rely on foreign aid to fund environmental programs. Existing economic mechanisms always produce a source (albeit often inadequate) of funds to implement environmental programs.

Second, the government has "earmarked" those funds to ensure that they are not diverted from environmental programs to other uses during difficult economic times (as they do not flow back into general revenue funds). It is noteworthy that in spite of deep economic declines in Poland during the last three years, environmental investment in Poland has increased (in real terms) each year during that time.

Responsible Authorities

The new environmental legislation moved the decision making process from the national level down to the almost 1000 cities and towns directly affected by pollution. **Local mayors now have complete authority to determine environmental priorities, arrange project financing and select contractors.**

SOURCES OF FUNDING

General Trends

Poland's environmental strategy reflects the experience of the west. It recognizes that a country must invest at least 1.5% of its GDP in the environment to neutralize environmental disruption caused by normal economic development. Poland's annual environmental investment (public and private) has grown from less than 0.3% of GDP during the period 1985-89, to @ 1.1% in 1991 and 1992. The total annual investment in the environment, during this period, grew from less than \$400 million in 1989 to more than \$1.1 billion in 1991 and in 1992.

Such dramatic growth in Poland's total environmental investment is unlikely to continue. However, the total amount of environmental investment will continue to increase significantly for the next decades due to four factors:

- (1) The government is committed to raise the level of environmental investment, as a percentage of GDP, to 1.5% or more;
- (2) As mentioned earlier, Poland has turned the corner into positive growth of its GDP, thus producing more dollars for environmental investment (even without raising its percent of GDP for such purposes);
- (3) As the major source of transferring funds into environmental investment is the system of fees and fines, enforcement and collection efficiency are critical. In 1985, only 37% of fees and fines were actually paid. By 1990, this percentage increased to 68%. The government estimates that, during 1992, it will collect @ 80% of fines due. The future goal is 100%. In fact, the government estimates that it is already collecting 100% of the fines for entities exceeding permissible air quality standards; and
- (4) Additional revenues will be added through the implementation of product charges, with those revenues earmarked for the National Fund.

The national environmental strategy dictates that tasks pertaining to the creation of municipal infrastructure (e.g. water treatment, sewage and solid waste treatment and disposal) are the responsibility of the municipality. As such, financing must be based on local budgets, augmented by other available sources of grants and credits.

The National Fund

By far the largest single source of funding (primarily soft loans) for environmental protection in Poland is the National Fund for Environmental Protection and Water Management (the National Fund). The Fund collects user fees from entities for (a) using natural resources emitting pollutants to air and water resources (e.g. water intake fees); (b) fees for quantitative degradation of environmental resources (e.g. air emission charges); (c) penalties from those violating permit limits or environmental regulations; and (d) royalty payments from those exploiting exhaustible natural resources. During both 1991 and 1992 the National Fund accounted for 35-45% of all spending on environmental protection in Poland.

The National Fund has two components. The first (40%) is disbursed centrally and addresses environmental problems that have regional, or even transboundary implications. It limits its participation in projects to <50% of the total project cost. The second component (40%) consisting of 49 Regional (Wojewoid) Funds disburse funds at the local level and focus on solving local problems (sometimes providing more than 50% of project funding).

Poland's national environmental strategy envisions that there will be a gradual shift toward all user fees and fines remaining at the local level. Product charges such as taxes on fossil fuels, non recyclable products, etc. will then provide sources of funds for the national component of environmental investment. The long term strategy strives to keep the absolute amount of public (national) funds more or less stable (in real terms).

Municipalities and Private Enterprise

The second major source of funds for environmental protection comes from municipal budgets and from the budgets of industrial enterprises (both state owned and private). Together these two sources generate a level on investment

that approaches that of the National Fund. It is the author's assessment that the bulk of such funds (>70-80%) presently comes from the municipalities. In the future, as the private sector becomes larger and more viable, it will likely contribute the greater proportion of environmental investment from these combined funding sources.

Other Funding Sources

The remainder of the environmental investment in Poland comes from the State (national) budget; from a plethora of multilateral and bilateral foreign assistance agreements (many of which target specific transboundary pollution problems); and from credits provided by the international development banks (e.g. EBRD, IBRD).

Beginning this year, Poland developed another source of funding for environmental investment, namely debt for environment swaps (Ecoconversion). With the United States agreeing to an Ecoconversion program, Poland has established an EcoFund to finance environmental investment using debt for environment swaps. Over the next 20 years the U.S. debt for environment Ecoconversion will produce \$350 million in environmental investment.

Poland is currently negotiating with other major foreign creditors to arrange additional Ecoconversion agreements. If completely successful, such agreements could produce an infusion of up to \$3 billion into Poland's environmental markets over the next two decades.

The last significant source of funds for environmental investment is the Environmental Protection Bank. This bank is a commercial entity, currently capitalized at \$25 Million. By providing soft loans (at preferential rates), for up to 50% of project costs, the Bank leverages its resources, while both preserving and increasing its capital assets.

FUNDING PRIORITIES

During the period 1988-1990, expenditures for typical municipal infrastructure projects such as water related investments (potable water, sewage treatment) and solid waste management projects accounted for 70-80% of environmental investments. During 1991, a shift occurred resulting in an increase in investments related to air quality (particularly by the National Fund). However, it appears that most of environmental investments in Poland are still directed toward municipal infrastructure projects. This trend is expected to continue until the private sector begins to make significant contributions to environmental investment.

Water Treatment

Slightly more than half of Poland's 45 million inhabitants live in urban areas, while slightly less than half live in rural areas. Although virtually all inhabitants of urban areas have access to potable water, the quality of water still leaves much to be desired, requiring significant upgrading. Among inhabitants of rural areas, almost 30% don't have access to running water, and 50% rely on wells. Water supplies in 20% of all municipal water supply systems (serving @ 5 million people), 46% of all public wells, and 66% of all private wells (serving @ 15 Million people) are still of unacceptable quality. Clearly, there exists a large potential market for consulting and engineering services related to water treatment.

Wastewater Treatment

Approximately 15% of the municipalities in Poland do not have sewage collection systems. Some 40% of municipalities do not have facilities for wastewater treatment, and less than 20% of wastewater receives biological treatment. In addition, many existing facilities are only partially completed or are seriously degraded. These facilities require significant investment to repair and/or upgrade them. Poland's national environmental strategy establishes a goal of creating the capacity to reduce the amount of untreated municipal sewage by 0.6 billion cubic meters by the year 2000. It also establishes a goal of creating additional capacity to treat sewage chemically and/or biologically by 260 million cubic meters.

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These data suggest that there are literally hundreds of small and large municipalities requiring environmental consulting and engineering services in the area of wastewater treatment. Approximately 350 new municipal wastewater treatment plants may be built in Poland, and 400 existing plants may be retrofited and/or upgraded.

Solid Waste Management

There currently exist 1500 legal landfills in Poland and perhaps an equal number of illegal landfills. Municipalities make little or no effort to recycle materials, compost or incinerate wastes, or to protect groundwater resources from seepage from such landfills. Some Polish cities are just beginning to examine and consider more advanced techniques for dealing with solid wastes.

Considering the relative magnitude of water and sewage problems in Poland, the author believes that solid waste management will probably remain the smallest segment of the municipal environmental consulting and engineering services market for the near term.

Financing

The local mayor (the exact title in Polish depends upon the size of the community), has complete responsibility for arranging project financing. The primary source of available funding for environmental investment is the local budget. Virtually all other available sources of funding, require a significant amount ($\approx 50\%$) of local co-financing for all environmental infrastructure projects. Depending upon the stage of a project, and the size of the municipality, as little as 1% or as much as 20% of the local government operating budget may be committed to environmental investment in a given year. The larger cities (e.g. Poznan, Wroclaw, Krakow) allocate smaller percentages of their local budgets to environmental investment. The smaller towns and villages must allocate proportionally larger amounts of their local budgets to fund infrastructure projects. Conversely, the larger cities usually must finance most of the environmental investment from local funds, while smaller towns can receive more assistance from the Environmental Funds.

The local funds are the basis for applying to the Regional Environmental Funds and/or to the National Environmental Fund for grants or credits. Only the

creativity of the mayor limits the types of other financing sources. However, he cannot get bank credits without a guarantee from the state (national government). There are no local revenue bonds in Poland.

One might consider the town of Gnieszno (Pop. 70,000) as a typical example of how the system works. Last year the town committed 24% (17 billion Zlotys) of its annual budget to the construction of a new water treatment plant. This represented 80% of the 1991 investment in the plant, with the other 20% coming in the form of a grant from the Regional Environmental Fund. During 1992, only 20% of that year's construction costs came from the town budget (3 billion Zlotys), while the remaining 80% of 1992 investment again came from the Regional Environmental Fund in the form of a grant. The plant will be completed in 1993 at an additional cost of 4 billion Zlotys, provided by the Regional Fund. Over the life of the project, funding was approximately 50-50 between local budget and the Regional Environmental Fund.

Over the last 6 years, Gnieszno has also been converting it's existing sewage treatment plant to biological treatment at a total cost of 24 billion Zloty. Gnieszno co-financed the project using 9 billion Zloty of town funds and a 15 billion Zloty credit from the National Environmental Fund.

The town is now looking at developing a solid waste management plan and facility. They have a preliminary assessment (completed by a small local firm), and are looking for someone to construct and operate a solid waste facility on a fee basis.

Another typical situation exists in the nearby town of Konin (Pop. 80,000). They have completed a new biological wastewater treatment plant. The town funded 40% of the project, a grant from the Regional Environmental Fund (50%), and a credit from the National Fund (10%). Again, total project financing was split \approx 50/50 between local funds and the Regional Environmental Fund.

With some creative financing, the local contributions can be kept to a minimum. For example in Legnica (Pop. 110,000) they have just developed a new town landfill that recovers biogas and sends it to the district heating plant, reducing the demand for coal by 50%. The mayor of Legnica considers this project the prototype sweetheart deal, as the town utilized almost no local funds.

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A Swedish firm that brought the biogas technology and a Swedish credit for a significant portion of the capital investment made the project possible. These credits and others from the National Fund allowed completion of the project. The town used the money saved from heating costs to pay off the credits, and in the process was able to develop its sanitary landfill with no net contribution of local funds.

There are also situations where the local need for infrastructure has regional implications but the local resources are limited. In such cases the normal requirement for local contributions can be waived. For example in the town of Olesznica untreated sewage was eventually reaching the Oder River in Wroclaw. The Wojewoid decided that the town required a wastewater treatment plant. In this case however, the local budget contributed only 8% of the financing. The Regional Environmental Fund provided a grant equalling 45% of the total investment. Finally, the National Environmental Fund provided soft credits for the remaining 45% of the investment, allowing the town to finance that portion over the life of the plant.

Another such example is the town of Nowy Sacz in the Wojewoid of Krakow. There the Regional Environmental Fund is financing 100% of a new wastewater treatment plant because the town could never afford to put together a standard financing proposal.

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PROCUREMENT PROCESS

The procurement process is under the total control of the local mayor. Even when the Regional and National Funds provide significant funds, there seems to be no oversight by these organizations. There is a movement to require tenders for projects involving Regional Funds, meaning there would be a tender requirement for virtually every project.

The problem remaining is the definition of a tender. In many cases, the local official feels he has undertaken a tender process by merely running a small advertisement in the "local" newspaper. In fact, if he already has an incumbent supplier in mind, the size of the advertisement can be quite small. Obviously an extensive information network, yielding information about projects while in the very early planning stages, represents a significant competitive advantage in this market segment.

After the mayor receives all offers, the decision is basically his. There are some restrictions, that may require him to convene a technical advisory council. However the degree to which such a body actually affects the final decision is not clear. For example, the mayor cannot obligate the town funds beyond a five year period. Contractual obligations beyond that time frame require approval of the town council. Also, if there is any question about creating a monopoly, the mayor may require the approval of the Federal Antimonopoly Agency, before he can approve a contract.

The decision criteria are simple and direct. Anyone who helps to bring financing to a project gets preferential treatment. Lacking such financing the objective criteria are price, familiarity, with a clear preference for domestic firms, credibility and creative solutions. In view of these criteria, it appears that a credible and qualified local partner is essential to successful entry, by foreign environmental consulting firms, to the emerging market for municipal environmental consulting, management and engineering services in Poland.

COMPETITION

A variety of local Polish firms represent the major competition in the municipal environmental services market. A few of these operate on a national scale (e.g. Ekolog, Hydrobudowa, HydroProject). Others operate on a more regional or even local scale (e.g. Dr. Winnicki's firm in Wroclaw). Within the latter group there may be 10-12 viable competitors capable of carrying out major infrastructure projects. Based on the interviews conducted during this assessment, there is not yet a clear market leader recognized by the municipal customers (mayors).

Regarding foreign competition, very few foreign firms have recognized and responded to the decentralization of responsibility yet. Most of the mayors of smaller towns did not have contact with large numbers of potential foreign suppliers of environmental consulting services. The most aggressive countries in marketing environmental consulting and management services to this emerging market segment have been Germany, Sweden, France and Denmark. However, it was apparent that no single foreign firm has made significant inroads into this market segment or established a visible presence in Poland. Even more conspicuous by their absence among the municipal customers in Poland are American environmental consulting firms.

The two names mentioned more than once were CH2MHill, which apparently works in Poland mainly on World Bank financed projects and Post, Buckley, Schuh & Jernigan (PBS&J). The latter appears to be the only environmental and consulting engineering firm that recognizes the opportunity represented by the emerging municipal environmental services sector in Poland. However, they seem to be attempting to implement a "greenfield strategy". There is no evidence that they have established any type of formal relationship with a credible Polish partner, although they have worked with several different partners on various projects.

Camp, Dresser and McKee is also opportunistically active in the region, primarily working on U.S. financed programs. However, so far it has been less active in Poland than in other countries in the region.

CONCLUSIONS

The market in Poland for environmental consulting, management and engineering services has increased dramatically during the past two years. During this period, the annual investment in environmental products and services has exceeded \$ 1 billion. Unlike its most of its neighbors in Central Europe, Poland self-finances more than 90% of its environmental investment. There is every indication that the annual level of environmental investment will increase throughout the remainder of the decade. This author estimates that annual growth rates will be a minimum of 5%-10%, and could reach 20% if Poland succeeds in its negotiations for additional Ecoconversion of its foreign debt.

Recently the government has shifted the responsibility for environmental investment decisions and financing from the central government to the municipalities. Decisions regarding environmental priorities, financing and, most significantly, who will provide the required services rests solely with one individual in each municipality. No matter how large or small the municipality, the mayor clearly makes all of these decisions.

It appears that there are only two real criteria for making these decisions, especially the decision regarding the supplier of environmental services. The first is financing. Whoever can bring, or assist in arranging project financing clearly will get the job. Lacking any clear advantage with respect to project financing, that the only other real selection criteria is apparently the personal relationship between the consultant and the customer.

The situation in the municipal environmental services market in Poland today clearly suggests that, for foreign firms, only two alternate strategies exist for successfully penetrating that market. One alternative is a "greenfield" strategy. In this case, the foreign consultant must be willing to invest 3-4 man years and significant sums of capital to establish credible personal relationships with a large and often unsophisticated customer set. The other alternative is to establish a relationship with a credible and highly visible Polish firm in order to leverage its existing personal relationships with the municipal customers into market share.

APPENDIX I

INFORMATION SOURCES

Mr. Wladyslaw Bigus; Mayor; Rudna
Dr. Ewa Borkowska; Legislative Director; Inst. Sust. Devel.
Mr. Mariusz Dziacko; Director, RIU; Katowice Wojewoid
Ing. F. Grzywac; Chief, Environment Department; Legnica
Ing. Andrzej Janiak; Chief, Environment Department; Konin
Mr. Usama Jayyusi; Managing Director; CH2MHill International
Dr. Wojciech Sz. Kaczmarek¹; Mayor; Poznan;
Ing. Zbigniew Kieras; Vice-Mayor; Legnica
Dr. John Malanchuk; President; COMCO MARTECH EUROPE
Mr. Dennis Moran; President, Camp, Dresser & McKee
Ing. Ryszard Olszewski; Chief, Environment Department; Poznan
Mr. Richard Reikinis; Manager, Development Services; PBS&J
Dr. Staszek Sitnicki; Chief of Operations, EcoFund
Mr. Marek Soltys; Manager, Credit & Capital; Env. Prot. Bank
Ing. Pawel Sordyl; Dep. Chief, Env. Prot.; Huta Steelworks
Ing. Jerzy Swaton; Dep. Dir., Env. Prot.; Katowice Wojewoid
Dr. Murli Tolaney, President; James M. Montgomery Consulting
Dr. Marek Waskowiak; Mayor, Konin
Ing. Jerzy Wertz; Director, Env. Prot.; Krakow Wojewoid
Ing. Bogdan Zdrojewski; Mayor, Wroclaw

Dr. Bob Zeigler; President, Geraghty & Miller International

Ing. Ryszard Zelinka; Mayor; Olesznica

Ing. Stanislaw Ziemba; Director, Env. Prot.; Wroclaw Wojewoid

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President, Polish National Association of Mayors

PROEKO Ltd.

STRATEGIC BUSINESS PLAN

(August, 1992)

ul. Krzywickiego 34/233
00-078 Warsaw, POLAND
TEL/FAX (48-2) 625-3648

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INTRODUCTION

Environmental degradation and inefficient resource use in Poland and Eastern Europe represent a serious threat to human health, economic development, and the general quality of life in the region. There can be no doubt that countries in the region will require huge investments to restore the environment conditions resulting from the abuses of the past 40 years, and to promote sustainable economic development in the future. Poland estimates that the investment required over the next decade to address its environmental problems is \$20 Billion. The resolve of the governments of Central and Eastern to address their environmental problems, to prevent further degradation, and to restore the present environment is no where more evident than in Poland.

Unlike other countries that have relied principally on foreign assistance to fund major environmental efforts, Poland has taken the "bull by the horns". First, it has raised concern for the environment to a level commensurate with political and economic issues. Secondly, and perhaps more importantly, it has already established many basic economic mechanisms required to fund its national environmental programs. By establishing these critical

economic mechanisms early, Poland has fostered policy reform, legislative and regulatory development, improved enforcement, and substantial investment in the environment.

The 1991 market for environmental products and services in Poland approached \$1 Billion (5% funding was from foreign donors). Poland has also established a goal of providing 1.5% of GDP for investment in the environment. It has not yet achieved this level of investment due to both economic and political pressures. However, continued progress toward this goal, and future growth in the Polish economy, both will combine to provide continued financial resources for environmental investment.

Recently, Poland began a program of decentralization of the government. This program shifts the responsibility for conceptualizing and creating environmental infrastructure programs to the cities and villages. PROEKO believes that this basic change in the way Poland will address its environmental issues and will establish responsibilities for setting environmental priorities and implementing environmental programs represents a unique business opportunity.

The representatives of local governments (e.g. the mayors of cities and towns) have little or no experience in managing such responsibilities or implementing such programs. The local governments are typically organizationally weak. Its leaders have few, if any, technical resources at their disposal to assist them in carrying out their newly delegated responsibilities. Also, they lack experience to access financial markets and institutions. Therefore, they will rely on credible qualified consultants to assist them in (a) setting environmental priorities, (b) evaluating alternate solutions to environmental issues, (c) devising creative financing mechanisms for infrastructure investment, (d) preparing technical and financial documentation to access the financial markets, and (e) managing the implementation of large environmental infrastructure projects.

PROEKO was founded to address this unique opportunity afforded by the shift in responsibility for implementing environmental programs from the federal to the local levels of government. PROEKO became an active company in June, 1992 when Dr. Bronislaw Kaminski accepted the position as Chairman of the company. As a former Minister of the Environment, and President of the National Environmental Fund in Poland,

Dr. Kaminski brings in depth understanding of both the environmental problems facing Poland, and the government's strategy for solving those problems. As one of Poland's leaders responsible for halting the process of environmental degradation in the country and for establishing a blueprint for restoring the environment and improving the quality of life, he brings instant credibility to the company in the eyes of potential customers. Such visibility and credibility represent real and significant competitive advantages for PROEKO in the marketplace.

MARKET

PROEKO views, and therefore defines, its markets in terms of the SERVICES it supplies, the CUSTOMERS who require these services, the END USE for which these customers utilize these services, and the DRIVING FORCES operational in the market that force the customer to take actions.

PROEKO's strategic goal is to become the premier supplier of quality environmental consulting services to the local governments in Poland. The services provide by PROEKO will assist the agents of these local governments in

carrying out their responsibilities to implement and manage programs that address the critical environmental issues of human health, resource efficiency, and quality of life. A significant component of this assistance will be to serve as a link between these local governments and the financial institutions, both domestic and international.

These services could include:

- (a) conceptualization of infrastructure projects,
- (b) evaluation of alternate approaches and technologies,
- (c) documentation, including design and engineering, of the basis for the most cost-effective alternative,
- (d) assistance in accessing financing institutions, developing self-financing mechanisms, and/or providing a basis (mechanisms) for credible future revenue streams to allow privatization of municipal services,
- (e) preparing tenders and negotiating contracts,
- (f) coordinating and managing the implementation of projects, and
- (g) project implementation.

The technical focus of PROEKO will be on the critical issues currently facing the customers. These are wastewater treatment, energy/heating, water supply and solid waste management. In order to provide the types of consulting services described above, technical expertise is required in a variety of disciplines including environmental audits, environmental impact assessment, engineering (e.g. water, wastewater, energy,) financial and economic analyses, and quality program and systems management. PROEKO intends to provide its customers expertise in all of these disciplines. This expertise will either come from internal staff resources, collaborations with recognized technical experts in Poland, or the resources of a Joint-Venture Partner.

PROEKO will focus its marketing activities on the various levels of government in Poland. This includes the federal government (e.g. Ministry of Privatization), as well as state (*województwo*), city (*miasto*) and town (*gmina*) governments. [NOTE: In view of the potential for conflicts of interest, PROEKO does not anticipate working for the Ministry of Environment, PHARE, etc.] PROEKO does, however, anticipate providing environmental consulting services to those international financial lending institutions that are

*PROEKO Ltd. - AUGUST, 1992
STRATEGIC BUSINESS PLAN*

supporting the environmental efforts of local government in Poland (e.g. IBRD, EBRD, etc.) However, in the near term (1-2 years), PROEKO's primary market focus will be on the local governments (city and town).

The end use for PROEKO's services by its customers is to assist them in overcoming their organizational and financial weaknesses in discharging their responsibilities to create solutions to local environmental problems.

The forces driving these markets are well known and are overwhelming. The health risks derived from a virtual complete lack of wastewater treatment, the virtual absence of safe potable water supplies, and the ever increasing problem of solid waste disposal (resulting from a trend toward western consumerism) contribute real social pressures on the local governments to act. Also motivating the local governments are the economic and environmental costs resulting from inefficient resource use. Finally, the emerging regulatory requirements regarding many of these issues provide legal pressures for local governments to deal with these issues.

COMPETITIVE POSTURE

PROEKO views its main competitors as a small number of credible Polish full-service environmental consulting engineering firms (e.g. EKOLOG) and the major western environmental consulting engineering firms that are currently active in Poland (e.g. CDM; Post, Buckley, Schuh & Jernigan; CH2MHill, Dames & Moore).

PROEKO believes that it has significant competitive advantages versus their foreign competitors. These advantages include:

- (1) a more intimate understanding of, and familiarity with, the customer and his needs;
- (2) a clearer understanding of the political, social, regulatory and cultural issues that affect what is possible in Poland, both financially and programatically;
- (3) greater credibility in the eyes of the local customer, which derives from the reputation of the Chairman and other principals (whether active or passive participants); and

- (4) a clear price advantage derived from the lower cost of intellectual capital available to PROEKO and from the logistical cost advantages derived from its geographical location.

The major competitive advantages of PROEKO versus those local firms offering a similar range of environmental consulting services will be:

- (A) western quality services and better access to the latest technological advancements;
- (B) better understanding of the viable technical and financial options available to local governments (which derives from the background and experience of PROEKO's senior management);
- (C) the ability to attract the highest caliber of technical expertise because of the reputation of the firm's senior management;

PROEKO also recognizes that it is at a significant competitive disadvantage versus western consulting engineering firms in several significant areas. These include;

- (i) familiarity with advanced environmental technologies and methodologies;
- (ii) financial resources;
- (iii) internal business management capabilities;
- (iv) economic and financial analysis capabilities; and
- (v) quality systems management capabilities to carry out complex programs requiring multi-disciplinary approaches.

PROEKO also realizes that there exist in Poland some established competitors entrenched in the existing marketplace with the existing customer base. The company intends to overcome this disadvantage by seizing the opportunity presented by the decentralization of services, which in effect is creating a new, and level, playing field for competitors in a new, rapidly growing market niche.

STRATEGY

PROEKO's fundamental strategy is to become the leading environmental consulting firm in Poland by providing equal emphasis on responding to both the technical and financial needs of its customers. In the near term, the strategy has

two objectives. The first is to leverage its competitive advantages of familiarity and credibility with, and understanding of the needs of, local governments to build

share in the emerging market for environmental consulting services. The second objective is to enter into a joint venture with a partner who can assist PROEKO in overcoming its competitive disadvantages. PROEKO looks to its joint-venture partner to strengthen its financial resources, management capability, and familiarity with advanced (western) environmental technologies and methodologies.

The company's longer term strategy also has two objectives. The first is to position PROEKO to serve the emerging private sector resulting from the government's efforts to restructure its industrial base. This will be

accomplished by leveraging the successes, derived from the firm's near term focus on serving local governments, to build an image and reputation for PROEKO as the premier supplier of environmental consulting services in Poland. The second objective of the company's long-term strategy is to selectively search for opportunities where it can use it's geographical proximity to selected C.I.S. states to begin to build market share in those foreign markets, as they emerge.

OPERATIONS & FORECASTS

The immediate needs of PROEKO are to increase both its technical and financial resources. They will accomplish the former requirement, in the near term, by establishing working relationships with recognized technical experts who can provide the firm the required technical base at minimal investment. In the future, the company will attract qualified technical staff, and incentivize them to assure their identifying the success of PROEKO with their own personal success. The company will accomplish this objective by providing key employees with an opportunity for equity participation.

The latter will be addressed in the context of a joint venture, wherein PROEKO will give up equity in the firm in return for a financial investment by a joint-venture partner. However, the firm will be careful to identify and negotiate only with prospective partners who can provide not only the required financial investment, but also, who can bring management, technical, financial and logistical support to PROEKO. The major objective of the joint-venture is to create a Polish environmental consulting firm that can offer "western quality performance at Polish prices" to solve the technical, management and financial problems facing the local governments which have responsibility as guarantors of a healthy environment and an improved quality of life.

Although PROEKO has been operating as an active business entity for only two months, and has only three full-time employees, progress in business development has created a considerable backlog. The Appendix contains descriptions of those projects already under contract. In view of the concentration of backlog and future business opportunities within the region of Silesia, PROEKO expects that its first field office will be located in that region sometime during early 1993.

Also, included in the Appendix to this plan are *pro forma* income statements for future years operations, as well as detailed information on the assumptions underlying those forecasts. The Appendix also includes a list of milestones which are critical to the successful implementation of this Strategic Business Plan.

Appendix.

Project opportunities.

in thousand U.S.dollars
1 dollar = 15000 zlotys

Activities	Status	Probability (%)	IIIqw	IVqw	1992	1993	1994	1995
Analysis and reports					30	120	240	400
1. Ecological studies for project application	C	95				20	40	80
2. Environmental impact assessment	C	95				20	40	70
3. Environmental audits for privatization	C	95		30	30	80	160	250
Water use and disposal					49	1095	2150	3020
1. Integrated water use and disposal system. A pilot study for modernization of two cities: optionally: Radom, Rzeszów, Poznań, Tomaszów Mazowiecki. With EBRD and IBRD.	C	70				100	300	300
2. Upgrading and improvement of existing waste water treatment plants in aprox. 20 small and medium towns	C+E	95		12	12	200	400	800
3. Sludge treatment	C+E	95		4	4	80	100	80
-Tomaszów Mazowiecki	C	95				150	300	500
-Others								

4. Automation and steering of a waste water treatment plants	C+E	70				50	150	300
5. Construction of a new sewage treatment plants								
-Madex Glass	C+E	100		26	26	100	130	
-Płock	C	70				60	150	90
-Others	C	70				100	200	300
6. Upgrading of industrial and special water use and waste water intakes								
-Tuszynek hospital	C+E	95	2	5	7	15		
-Others	C	95				120	250	400
7. Improving of the existing approach to water use and waste water disposal								
-protection of Sulejow reservoir	C	70				35		
-Others	C	95				40	70	100
8. Water use and disposal for villages	C	95				50	100	150
Heating and energy systems						300	650	1000
1. Integrated modernization of a municipal heating systems in Rzeszów and Tomaszów Mazowiecki	C	70				100	200	300
2. Improvement of existing heat sources	C	95				150	300	400
3. Other projects related to energy economy	C	95				50	150	300
Municipal and industrial waste						210	400	750
1. Integrated waste minimization program for towns	C	70				30	150	250
2. Utilization of a toxic and hazardous wastes	C+E	95				30	150	300

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3. Recycling of energy and resources	C	95				50	100	200
Marketing of environmental friendly production						120	260	380
1. RAFAKO boiler factory	C	100	4	16	20	40	60	80
2. Assessment of the market for air protection devices	C	100	12		12			
3. Others	C	95				80	200	300
Training, technical assistance						50	200	150
1. Workshop on waste water treatment plant modernization and improvement	C	95		4	4			
2. Others	C	95	13	22	35	50	100	150
TOTAL			31	119	150	1900	3800	5700
TOTAL adjusted					150	1800	3300	5500

- Comments: 1. C - consulting, E - engineering
2. To assess PROEKO profit the following structure of a total sale is anticipated: subcontractors - 60%, PROEKO costs - 30%, PROEKO profit - 10%

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Appendix.

Prediction of PROEKO cash-flow

Year	Sale	PROEKO share in sale	Advances	Income	Costs	Investment	Salary	Insurance	Other costs	Advance repayment	Profit
1992	150	60	11,3	71,3	70,2	9,1	30,5	12,4	12,9	5,3	1,1
of which:											
VII	5	2,0	11,3		7,7	4,7	1,7	0,6	0,7		
VIII	3	3,2			5,2	0,7	2,3	1,0	1,2		
IX	18	7,2			10,0		3,5	1,2	2,0	3,3	
X	26	10,4			9,5		5,0	2,0	2,5		
XI	48	19,2			20,5	3,7	9,0	3,8	3,0	1,0	
XII	45	18,0			17,3		9,0	3,8	3,5	1,0	
1993	1800	720		720	713	90	320	147	150	6,0	7
1994	3300	1320		1320	1290	80	620	285	295		30
1995	5000	2000		2000	1540	80	755	355	350		460

KENNETH J. MACEK

ul. Nowiniarska 1, m 28
00-235 Warsaw, POLAND
PHONE/FAX (48-2) 635-4531

January 6, 1992

Mr. Marek Kulczycki, President
The Enterprise Credit Corporation
Polish-American Enterprise Fund
ul. Towarowa 25
00-869 Warszawa, POLAND

Dear Mr. Kulczycki:

Enclosed find three (3) copies of an application, from ASKOM Sp. zo.o., (Poznan), for US\$ 150,000 credit. Also enclosed are resumes of the two principals. I have worked with the ASKOM'S management for several months to understand their business, technology, and competitive situation. I also spent considerable time conducting an assessment of the domestic markets for aeration systems (blowers) for water and wastewater systems. I have assisted ASKOM in preparing the enclosed application.

As a result of these activities, I have my own ideas about ASKOM's business, strategy, management and markets. Enclosed also are three (3) copies of a brief "Prospectus" describing, in conventional western terms, my understanding of their business, strategy and markets.

I trust this information is useful in evaluating the enclosed credit application from ASKOM. If I can be of further assistance, please don't hesitate to contact me.

Sincerely,

Kenneth J. Macek, Ph.D.
Resident Environmental Business Advisor,
Central Europe

Enclosures:

PROSPECTUS

Submitted to:

**THE ENTERPRISE CREDIT CORPORATION
POLISH-AMERICAN ENTERPRISE FUND
WARSAW, POLAND**

Submitted by:

ASKOM Sp. zo.o.
ul. Kordeckiego 58
60-144 POZNAN
Tel: 3327-590, 327-853

JANUARY, 1993

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DISCLOSURE

The U. S. Agency for International Development has provided a Resident (Warsaw) Environmental Business Advisor (the Advisor) to the private environmental business sectors in Poland, Hungary, and the Czech and Slovak Republics.

The principal function of the Advisor is to assist private environmental businesses to improve their competitive position in their respective markets. The Advisor directs his activities toward "enterprise strengthening." He first screens the environmental business sector to select domestic environmental firms suitable for enterprise strengthening. The selection process targets firms that appear to have (a) identified market needs; (b) established real competitive advantages; and (c) developed a strategy to leverage those advantages into market penetration and, ultimately, the largest market share. He then assists those domestic firms to access sources of credit and capital, U.S. technologies, and/or joint-venture partners.

The Advisor prepared this addendum (Prospectus) to the enclosed application to support ASKOM's application to the Enterprise Credit Corporation (ECC) for \$150,000 credit. The Advisor intends that the information, contained therein, assist the Enterprise Credit Corporation in evaluating the Company's application by describing ASKOM's business, its competitive advantages and strategy in typical western management terms.

The material concerning the Company's business, markets and strategy reflects the understanding of the AID Advisor resulting from (a) representations made to him by the management of ASKOM Sp. z.o.o.; (b) his understanding of the current environmental conditions in Poland; and (c) his familiarity with the environmental products private sector.

The Advisor provided his assistance to ASKOM under a contract with the U.S. Agency for International Development. The Advisor's assistance does not represent, nor does it imply, endorsement of the Company's application by the U.S. Government. The Advisor assumes that the Enterprise Credit Corporation will conduct its normal due diligence activities before taking any action concerning this application.

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EXECUTIVE SUMMARY

ASKOM Sp. zo.o., Poznan, (the Company) provides low pressure water aeration devices (blowers) for the treatment of municipal and industrial water and wastewater. These standard products represent 85% of the current sales. They are sold to Polish and foreign engineering and design firms, and municipalities, industry, and commercial fish growers. ASKOM also manufactures and/or distributes high pressure aeration devices (blowers), compressors and pumps, both to its base market and to new markets. It maintains and services all of its products.

ASKOM currently shares leadership (30% share) in the market for aeration systems for water and wastewater treatment. It enjoys significant competitive advantages versus all of its competitors in this market segment. Its products are more reliable and durable, operate more quietly, and require less service than those of its major domestic competitor. While quality of ASKOM's products are comparable to its foreign competitors', its price is significantly less.

The Company is applying for a credit of \$150,000.00. These funds will be combined with approximately \$25,000 of ASKOM's own funds to implement the Company's three pronged business strategy to expand production of its existing products, increase its product line to better serve its existing customer base, and enter new markets with its existing products. The Company's strategy leverages its competitive price and performance advantage with its rapidly growing reputation for quality water aeration systems.

ASKOM will combine approximately \$75,000 of the credit with its operating capital to purchase \$100,000 of equipment to expand and improve its manufacture capacity. The Company expects this investment will allow it to lower production costs; and improve product performance, reliability and durability.

The Company intends to use approximately \$75,000 of the credit to build parts and finished goods inventory to shorten the product delivery cycle.

INTRODUCTION

ASKOM Spo. z.o.o. (the Company) was organized in March of 1991 to produce blowers and compressors. These blowers function as key components of most municipal and industrial (e.g. food processing, chemical process) wastewater treatment systems, and water reclamation systems. It now distributes larger aerators, other types of compressors and pumps to the water and wastewater treatment markets in Poland.

The Company sells primarily to domestic and foreign engineering firms that design municipal and industrial water and wastewater treatment systems. It also sells to water management agencies (e.g. municipalities responsible for maintaining the quality of surface impoundments) and to commercial fish farmers.

The company has an exclusive license, from RKR Gm.b.h., Germany, to import key electromechanical components (stages) for its blowers and compressors. It adds noise reduction devices (for both intake and discharge), electronics and controls, and domestically produced motors, to provide the customers complete systems. The Company also manufactures piston type compressors. It is responsible for quality control and provides service and maintenance.

The domestic demand for ASKOM's water aeration devices and compressors is increasing more rapidly than the Company's ability to provide products. The Company is seeking \$150,000 from the Enterprise Credit Corporation. Approximately half the funds are to purchase equipment to expand manufacturing capabilities. This will result in increased production, lower manufacturing costs, and improved product quality and reliability. ASKOM will use the remaining funds to build inventory of imported components (stages) and finished goods to shorten the product delivery cycle. This will allow the company to respond rapidly to market demand and to satisfy the customer's needs in a more timely manner.

The Company believes that the requested credits will provide the necessary infusion of capital to allow it to gain market leadership in its principal market niche in Poland. Also, the Company believes there exist opportunities to expand its market share for other mechanical devices used by their existing customers (e.g. screw compressors, oil-free compressors, pumps, etc.) that it can successfully exploit.

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MARKETS

The Company defines its markets in terms of the products provided, customers, end uses served, and the driving forces motivating customers to purchase their products. The common denominator to the current and future market segments served by the Company are the customer sets.

Products

Currently ASKOM derives approximately 85% of its sales revenue from the production and distribution of aerators. In addition, 10% of sales comes from the production of piston compressors and distribution of screw compressors, and 5% from service and maintenance fees.

The Company's aerating devices (blowers) range from low volume units ($0.5\text{m}^3/\text{min}$) to mid-range systems ($20\text{m}^3/\text{min}$). In order to increase its market penetration and broaden its customer base, ASKOM distributes RKR's larger volume units (up to $200\text{m}^3/\text{min}$). They incorporate these into complete systems by providing platforms and inexpensive Polish motors. The Company also distributes oil-free compressors for water and wastewater treatment applications and screw compressors for industrial pneumatic applications. The Company maintains and services all the products that it distributes.

Customers

The Company sells its principal product (aerators) to over 100 domestic engineering and design firms that specify these systems as components of municipal and industrial water and wastewater treatment systems. It also sells its aeration systems directly to the industrial sector (e.g. chemical and food processing industries), to commercial fish growers, and to municipalities responsible for the water quality of ponds and lakes used for recreational purposes.

ASKOM sells its compressors and pumps to the water and wastewater treatment sectors, as well as to small industrial workshops requiring pneumatic capabilities, to the food processing industry, and to the chemical process industry.

End Use

Municipal and industrial customers rely on the Company's water aeration systems to provide and maintain the dissolved oxygen concentrations essential for some chemical, and all biological treatment of wastewater. Commercial fish farmers rely on ASKOM's systems to maintain dissolved oxygen levels, increasing the yields from their production ponds. Entities (e.g. gminas) responsible for maintaining recreational water bodies, use the company's aeration systems to maintain dissolved oxygen concentrations, during the summer months, and prevent fouling of water.

Driving Forces

Increasing concern for human health, environmental awareness, and new environmental regulations (with their associated system of fees and fines) all contribute to the demand for the Company's products. Wastewater treatment systems, incorporating ASKOM's products help to reduce the discharge of hazardous environmental pollutants, preserve the quality of nearby groundwater, and decrease the potential hazards to human health.

Approximately 40% of municipalities in Poland do not have facilities for wastewater treatment, and less than 20% of wastewater receives biological treatment. In addition, many existing facilities are only partially complete or are seriously degraded. These facilities require significant investment to repair and/or upgrade them. Poland's national environmental strategy establishes a goal of creating the capacity to reduce the amount of untreated municipal sewage by 0.6 billion cubic meters by the year 2000. It also establishes a goal of creating additional capacity to treat sewage chemically and/or biologically by 260 million cubic meters. The government estimates that approximately 350 new municipal wastewater treatment plants must be built in Poland, and 400 existing plants may be retrofited and/or upgraded. These market forces will create an ever expanding market for ASKOM's principal products.

The industrial wastewater treatment sector currently is much smaller than the municipal sector. However, as Poland privatizes its state industries and increases environmental

enforcement, the economic benefits to industries of avoiding pollution penalties and reducing pollution fees will drive the industrial wastewater treatment market. Eventually, the government estimates that the private industrial wastewater treatment sector will exceed the municipal sector. This will assure expanding long term demand for ASKOM's products.

Also, the need for commercial fish growers to maintain saturated concentrations of dissolved oxygen to optimize production yields, and thus income, creates additional demand for the Company's aeration devices. Finally municipalities, responsible for the quality of surface water used for both drinking and recreational purposes, rely on the Company's products to maintain healthy and aesthetic water resources.

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COMPETITION

The competitive dynamics of the market for low pressure water aerating units for both the municipal and industrial wastewater treatment markets are unusually clear.

There are two principal competitors, each with approximately 30% of market share. These two Polish firms are easily differentiated. ASKOM, the new competitor in the marketplace, relies on importing a key western component and providing value added engineering to supply complete aeration systems. It's products are more reliable, durable, operate more quietly, and are more energy efficient. Spomasz (Ostrow) was the established market leader prior to ASKOM's entry. It relies on reverse engineering of western products using all Polish components. They provide a lower quality product at lower cost. Among the customers, Spomasz's products are notorious for being loud, unreliable, requiring frequent service, and lacking the durability required in the typical operating environment.

The only significant foreign competitor is Aertzner, a German firm that has been serving the market in Poland for almost 20 years, and once was the market leader. However, it currently has only about 15% of market share. It provides products of a quality comparable (to ASKOM's), but at a significantly higher price.

Several other domestic firms, including Comprot (Wroclaw) and Tepro (Koszalin) share the remaining 25% of the market for aeration devices in Poland. Some of these firms do not provide complete systems, however.

There are virtually no domestic suppliers of similar compressors in Poland. Polmo-Gorlica, a Polish manufacturer of brake compressors is attempting to serve this market with its existing products. However, their products are more expensive and less reliable than ASKOM's products. The Company's major competitors in the compressor market are importers of more expensive western products.

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Competitive Advantages/Disadvantages

ASKOM has distinct competitive advantages versus each of its major competitors in the market for aeration devices. Their products have already earned a reputation in the marketplace for reliability, durability and quiet operation that far exceeds that of the former market leader (Spomasz). Spomasz competes solely on the basis of 30-40% lower price. Also, it does not provide complete systems, only certain components.

ASKOM rapidly achieved market share equal to that of Spomasz, despite a significant price disadvantage. This rapid growth in market share demonstrates that the customers recognize (a) the need for product reliability, durability, quiet operation and energy efficiency, (b) the advantages of purchasing a complete system, and (c) the relative value offered by ASKOM's products.

The Company enjoys a major price advantage versus the German supplier Aertzner due to (a) their aeration systems are subject to 30% import duties (the German component that ASKOM imports from RKR is not subject to duty), and (b) Polish labor costs are obviously significantly lower than German labor costs. ASKOM utilizes its price advantage to overcome Aertzner's historical domination of the market for aeration devices in Poland.

As the major competitors in the domestic market for compressors are all importers of western products, ASKOM again has a distinct price advantage for the above reasons.

STRATEGY

ASKOM's strategy is to leverage its competitive price and performance advantages to build market share in its base business (i.e. the domestic market for aeration devices used in water and wastewater treatment). It will also become more responsive to its customer's needs by shortening the product delivery cycle, creating yet another competitive advantage in its base business.

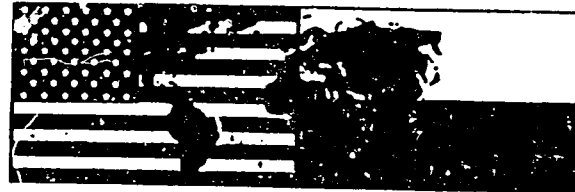
The Company also will utilize its existing competitive advantages to expand its business through (i) output development (i.e. offering existing customers additional products), and (ii) market development (i.e. offering existing products to new markets). To support these objectives the Company will open sales/service offices in Katowice, Krakow and Jelenia Gora.

ASKOM will utilize the credits to expand manufacturing facilities and shorten the product delivery cycle. These investments will allow ASKOM to lower product costs, improve product quality, and provide product to the customer in a more responsive manner. They will also allow the Company to meet the expected demand from new markets for existing and related products.

Use of Proceeds

During the first quarter of 1993, ASKOM intends to invest \$100,000 in manufacturing equipment to increase its production capacity. The Company intends to contribute \$25,000 from its operating funds, and to use \$75,000 of the requested credits for the balance of this investment. The equipment to be purchased includes drill presses, machine tools, an electronic/diagnostic test station, lathe, welder, hydraulic lift, fork lift, and service van.

In order to increase both the production of aeration devices and new products and shorten the product delivery cycle ASKOM must increase its inventory of its key imported components (stages) and finished goods. The Company intends to use \$75,000 to finance the costs of additional inventory of both components and finished goods.



POLSKO-AMERYKANSKI FUNDUSZ PRZEDSIĘBIORCZOŚCI

POLISH-AMERICAN ENTERPRISE FUND

Nr ewidencyjny: _____

NAZWA FIRMY: ASKOM spółka z o.o.

ADRES: ul. Kordeckiego 58.

60-144 POZNAŃ

TELEFON: 327-590 327-853

OKIENKO PAFP W: _____

WARSZAWA - NOWY JORK

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UWAGA!

Wnioskodawca nie jest zobowiązany do ponoszenia jakichkolwiek opłat rzecz jakiegokolwiek osoby lub instytucji, którą pomagała w wypełnieniu lub przygotowaniu niniejszego wniosku. Pracownicy Banku, w którym wniosek jest składany oraz pracownicy PAFP mogą omawiać z wnioskodawcami wszystkie lub tylko niektóre elementy niniejszego wniosku, ale nie wolno im przyjmować od wnioskodawcy żadnego wynagrodzenia w postaci pieniędzy, prezentów lub usług i to bez względu na ich rodzaj. Osoby te jednakże nie mogą przygotować wniosku za wnioskodawcę.

JAKI SPOSÓB PAN/PANI DOWIEDZIAŁ(A) SIĘ O MOŻLIWOŚCI UZYSKANIA POŻYCZKI Z PAFP? PROSZĘ WYBRAĆ JEDEN Z PONIŻSZYCH:

- 1. PRASA x
- 2. RADIO _____
- 3. TELEWIZJA _____
- 4. ULOTKI I OGŁOSZENIA W BANKU _____
- 5. RODZINA, ZNAJOMI _____
- 6. SEMINARIA INFORMACYJNE PAFP _____
- 7. POŻYCZKOBIORCY PAFP _____
- 8. INNE x Mr MACEK - USA

Uzyskanie niniejszego dokumentu w całości lub tylko w części dla celów innych niż składanie wniosku o pożyczkę ze środków Polsko - Amerykańskiego Funduszu Przedsiębiorczości (PAFP) wymaga uzyskania zgody PAFP.

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UWAGA!

PAFP rezerwuje sobie prawo przeprowadzenia rozpoznania potrzebnego do podjęcia decyzji kredytowej odnośnie wnioskodawcy i może skontaktować się z kimkolwiek, kto byłby w tym pomocny. Jeżeli Wnioskodawca życzy sobie, aby pewne osoby nie były informowane, proszę podać nazwisko i przyczynę (np. obecny pracodawca lub konkurent).

PAFP rozpocznie procedurę rozpatrywania wniosku o pożyczkę dopiero po dostarczeniu przez Wnioskodawcę wszystkich danych i dokumentów, niezbędnych dla prawidłowego ocenienia zdolności kredytowej Wnioskodawcy. Wszelkie opóźnienie w dostarczeniu tych danych i dokumentów spowoduje przedłużenie okresu rozpatrywania wniosku.

Wnioskodawca oświadcza i gwarantuje, że ani podmiot gospodarczy, którego dotyczy niniejszy wniosek o pożyczkę, ani żaden z jego udziałowców lub osób pozostających z nim w wspólnym gospodarstwie domowym nie otrzymał i nie stara się o uzyskanie pożyczki z Polsko-Amerykańskiego Funduszu Przedsiębiorczości.

Wnioskodawca oświadcza i gwarantuje, że wszystkie informacje zawarte w niniejszym wniosku i załączonych do niego dokumentach są prawdziwe i zgodne ze stanem faktycznym.

Składając poniżej swój podpis wnioskodawca niniejszym potwierdza, że zapoznał się z treścią powyższych paragrafów i w pełni je zrozumiał.

_____ (data)

_____ (podpis Wnioskodawcy)

_____ (podpis pracownika Banku)

_____ (data złożenia kompletnego wniosku)

STATUS PRAWNY FIRMY: Spółka prawa handlowego z o.o.

WŁAŚCICIELE: mgr inż. Wojciech Krzewiński - 50%
dr inż. Władysław Stróżyk - 50 %

PROPONOWANY SPOSÓB ZABEZPIECZENIA ZWROTNOŚCI POŻYCZKI PAFP: umowa zastawu majątku Spółki

W RAZIE ZAMIARU KORZYSTANIA PRZY REALIZACJI PROJEKTU DODATKOWO Z POŻYCZEK/KREDYTÓW INNYCH NIŻ POŻYCZKA PAFP, PROSZĘ OPISAĆ ICH PRZEZNACZENIE, POŻYCZKODAWCÓW, WARUNKI OTRZYMANIA ORAZ SPOSÓB ZABEZPIECZENIA ZWROTNOŚCI:

- nie
- przesunięcie terminów płatności zobowiązań wobec dostawców od 30 do 120 dni - na podstawie zawartych porozumień

PROSZĘ OPISAĆ PRZEZNACZENIE ANGAŻOWANYCH W PROJEKT ŚRODKÓW WŁASNYCH:

- zwiększenie kapitału obrotowego 80 %
- wyposażenie w narzędzia i oprzyrządowanie 25%

NAZWA I ADRES BANKU PROWADZĄCEGO RACHUNEK BIEŻĄCY FIRMY: Wielkopolski Bank Kredytowy II O)Poznań
Al.Marcinkowskiego konto nr 356208-105402-136.0

SP

OPIS PRZEDSIĘBIORSTWA

(stan aktualny)

STRUKTURA ASORTYMENTOWA PRODUKCJI/USŁUG

Nazwa produktu/usługi	% obrotów
- <u>produkcja agregatów z dmuchawami</u>	<u>85 %</u>
- <u>usługi serwisowe</u>	<u>15 %</u>

ZDOLNOŚCI PRODUKCYJNE (proszę opisać)
ograniczone możliwościami zgromadzenia podst. materiałów, słabym wyposażeniem w urządzenia do montażu.
AKTUALNIE WYKORZYSTYWANE JEST 95 % ZDOLNOŚCI PRODUKCYJNYCH.

ZDOLNOŚCI PRODUKCYJNE PO ZREALIZOWANIU PROJEKTU (proszę opisać)
Wzrost o 250 % - wzrost ilości montowanych agregatów z dmuchawami, uruchomienie montażu małych agregatów ze sprężarkami tłokowymi i pompami

POŁOŻENIE
CZY DO FIRMY ISTNIEJE DOGODNY DOJAZD? (proszę opisać) tak
biura w pobliżu linii tramw., 15 min. od centrum i dworca PKP i PKS
CZY ISTNIEJĄ MOŻLIWOŚCI PARKOWANIA SAMOCHODÓW? (proszę opisać) tak

WŁASNOŚĆ OBIEKTÓW PRODUKCYJNYCH
CZYJĄ WŁASNOŚCIĄ SĄ OBIEKTY PRODUKCYJNE FIRMY? (Jeśli firma działa w obiektach dzierżawionych, proszę podać warunki dzierżawy)
obiekty dzierżawione - dzierżawa opłacona do 1.09.1993 - możliwość przedłużenia umowy na czas nieograniczony.

POZWOLENIA

POZWOLENIA WYMAGANE DLA PODJĘCIA PROWADZONEJ/PLANOWANEJ

PRZEZ FIRME DZIAŁALNOŚCI:

Akty notarialne A I 2401)91 , A II 3811)91

KIEROWNICTWO

PROSZĘ PODAĆ IMIONA, NAZWISKA, KWALIFIKACJE OSÓB ZAJMUJĄCYCH W FIRMIE KLUCZOWE STANOWISKA WRAZ Z WYSOKOŚCIĄ WYNAGRODZENIA:

Dyrektor - dr inż. Władysław Stróżyk - specj. II st.

z zakresu sprężarek

Główny Księgowy - mgr Danuta Sosińska

CŁA I KURSY WALUT

W JAKI WPŁYW NA DZIAŁALNOŚĆ FIRMY MAJĄ TARYFY CELNE I KURSY WALUT? (proszę opisać, jeśli jest to wpływ znaczący)

- wzrost kosztów zużycia materiałowego - ok. 2% mies.

- zmniejszenie zysku brutto - ok. 20 % mies.

PŁACE

ŚREDNIA WYSOKOŚĆ PŁAC W FIRMIE: (I-IX) brutto 5.000.000 zł

KOSZTY MATERIAŁOWO-SUROWCOWE

Rodzaj surowca/materiału	w zł		
	Cena jednostkowa	Zużycie miesięczne	Koszt miesięczny
- dmuchawy	35.000.000	5	175000000
- silniki(1,5-12)	8.000.000	5	40000000
- zawory bezp.	1.500.000	5	7500000
- koła pasowe	330.000	10	3300000
- ramy	4.500.000	5	22500000
- inne	-	-	91700000

DOSTAWCY

ŁĄCZNA ILOŚĆ DOSTAWCÓW: 10

PROSZĘ WYMIENIĆ GŁÓWNYCH DOSTAWCÓW:

Dostawca	% dostaw	Rodzaj dostaw	Warunki płatności	Okres współpracy
PKR Verdichtertechnik	85	dmuchawy	60 dni	12 miesięcy
Rinteln Lemcy		sprężarki	30 dni	12 miesięcy
Koosir Drucklufttech.	1,6			
Herre Niemcy				
Tamel Tarnów	3,3	silniki	gotówka-czek	10 miesięcy
Celma Cieszyń	1,5	"	"	10 miesięcy
POM Tarnowo Podg.	2,1	usługi montaż.	"	10 miesięcy
ODBIORCY				
ŁĄCZNA ILOŚĆ ODBIORCÓW:	100			
PROSZĘ WYMIENIĆ GŁÓWNYCH ODBIORCÓW:				

Odbiorca	% sprzed.	Sprowadzane wyroby	Warunki płatności	Okres współpracy
Przeds. Robót Invest.	55,6	dmuchawy	przedpłatą	12 miesięcy
Jelenia Góra		"	czek, gotówka	12 miesięcy
EKOLOG Pila	10,5	"	"	10 miesięcy
Hydrobudowa Poznań	10,3	"	"	6 miesięcy
Conbest Kraków	5,6	"	"	14 dni przelew 6 miesięcy

KONKURENCJAILE FIRM OFERUJE PODOBNY PRODUKT? 3

GŁÓWNI KONKURENCI (proszę wymienić): _____

SPOMASZ Ostrów Wlkp., COMPROT Wrocław,SPOMASZ Toruń

CZY ISTNIEJE KONKURENCJA ZAGRANICZNA? (jeśli tak, proszę opisać)

- Aerzener Maschinenfabrik Niemcy-firma wcześniej
znana na rynku, wyższe ceny, gorszy serwis- Dresser - USA-Anglia-przedstawicielstwo w Holandii
-ceny podobne lub wyższe, brak serwisu, gorsza
jakość

POD JAKIMI WZGLĘDAMI FIRMA MA PRZEWAGĘ NAD KONKURENCJĄ?

- wysoka jakość, szeroki asortyment, konkurencyjne
ceny, wysokie kwalifikacje pracowników**MARKETING**W JAKI SPOSÓB FIRMA DOCIERA DO NABYWCÓW? _____
udział w targach, wystawach, sympozjach specjalistycznych
reklama w katalogach, bezpośrednie kontaktyJAK FIRMA ZAMIERZA DOCIERAĆ DO NABYWCÓW W PRZYSZŁOŚCI? _____
jak wyżej, organizacja sympozjów i szkoleń,
zwiększenie przedstawicielstw w innych miastach**UBEZPIECZENIE**

PROSZĘ PODAĆ RODZAJ, WYSTAWCĘ I WARTOŚĆ POLISY UBEZPIECZENIA

FIRMY: PZU**BILANS PRZEDSIĘBIORSTWA NA DZIEŃ 1.01.-30.10.1992 r**

AKTYWA	PLZ	PASYWA	PLZ
Gotówka w kasie i banku	315.112.250	Zobow. wobec dostawców	1252.058.800
Należności od odbiorców	50.410.000	Pożyczki krótkoterminowe	-
Zapasy	457.005.501	Pożyczki długoterminowe	-
Maszyny i urządzenia (netto)	70.204.550	Zobow. wobec budżetu	39.507.900
Nieruchomości	-	Inne zobowiązania	153.353.600
Pojazdy	393.598.000	Kapitał	100.000.000
Inne aktywa	258.589.999		
	1.544.920.300		
RAZEM AKTYWA	1.544.920.300	RAZEM PASYWA+ KAPITAŁ	1544.920.300

NALEŻNOŚCI OD ODBIORCÓW

Dłużnik	Kwota	Od jak dawna?	Przewidywany termin spływu
Promont Kępno	20.850.000	VIII-IX)92	XI)92
Woj. Dyr. Inw. P-ń	4.560.000	X)92	XI)92
Prospan Wieruszów	25.000.000	X)92	XI)92

ZAPASY

	PLZ
MATERIAŁY I SUROWCE	457.005.501
PRODUKCJA W TOKU	
WYROBY GOTOWE	
RAZEM	457.005.501

MASZYNY I URZĄDZENIA

wartość netto zł

Rodzaj	Rok produkcji	Ilość	Aktualna wartość
komputer	1991	1	28.250.000
pryczepa N-126p	1992	1	41.954.550
uwaga: wyposażenie umorzone			
maszyna OPTIMA	1991	1	3.900.000
urządzenia Metalcraft	kompl.		32.772.000
łodówka	1992	1	4.250.000

POJAZDY

Marka	Rok produkcji	Wartość rynkowa
samochód Citroen tow. C-25	1991	213.600.000
samochód Citroen osob. CX 25 GTI	1988	179.998.000

INNE AKTYWA (proszę opisać)

rozrachunki z pracown.	54.578.000
" z budżetem (nadpłata pod.)	82.646.989
" z Espero	121.365.000

NIERUCHOMOŚCI

Lokalizacja	Powierzchnia	Data nabycia	Wartość Rynkowa	Sposób wykorzystania
nie posiada				

POŻYCZKI KRÓTKOTERMINOWE (do jednego roku)

Pożyczkodawca	Kwota pożyczki	Kwota do spłaty	Termin spłaty	Stopa %	Zabezpieczenie
nie dotyczy					

POŻYCZKI DŁUGOTERMINOWE (powyżej jednego roku)

Pożyczkodawca	Kwota pożyczki	Kwota do spłaty	Termin spłaty	Stopa %	Zabezpieczenie
nie dotyczy					

ANOWANE KOSZTY

ZYSKIE MATERIAŁÓW I SUROWCÓW

rodzaj surowca/materiału	Zużycie miesięczne	Cena	Wartość zużycia miesięcznego
uchawy	12	35000000	420000000
prężarki	41	6000000	246000000
mpy	8	25000000	200000000
lniki	25	10000000	250000000
ne	-	-	304000000

ACE po osiągnięciu pełnych zdolności produk. brutto zł

atrudnienie	Średnia płaca	Miesięczne koszty płac	Miesięczna wysokość narzutów na płace
11 osób	7.500.000	82.500.000	39.000.000 (ZUS)

SOKOŚĆ PŁAC KIEROWNICTWA:

osoba 15.000.000 śr. mies.

ESIĘCZNE KOSZTY TRANSPORTU (proszę podać wysokość i sposób kalkulacji)

legacje zagr. 4x mies. 4000kx 2.200zł)km = 8.800.000
+ inne k-ty transportu 3.700.000

ESIĘCZNE KOSZTY ENERGII, GAZU I WODY (proszę podać wysokość i sposób kalkulacji):

wg średniego zużycia w okresie I-X)92 2.400.000

MIESIĘCZNE KOSZTY ADMINISTRACJI I REKLAMY (proszę podać wysokość i sposób kalkulacji) wg średnich kosztów okresu I-X)92

30.000.000 zł

MIESIĘCZNA WYSOKOŚĆ POZOSTAŁYCH KOSZTÓW (proszę podać rodzaje kosztów i sposób kalkulacji): w załączeniu

PODATKI PŁACONE PRZEZ FIRME (proszę podać rodzaje płaconych podatków oraz

sposób obliczania ich wymiaru):

podatek dochodowy od osób prawnych - 40% zysku brutto

" " od osób fizycznych - 20 %

funduszu płac brutto

CZY FIRMA KORZYSTA Z ULG PODATKOWYCH (jeśli tak, proszę opisać)

ulgi w podatku dochodowym - tyt. odliczenia strat z I-go roku działalności (3 lata)

WYSOKOŚĆ KURSU DOLARA ZAŁOŻONA PRZY OBLICZANIU WYSOKOŚCI SPŁAT POŻYCZKI: tab.NBP nr 219 z 6.11.92

1 USD = 15.456 PLZ

+ wzrost kursu średnio 9 zł) dziennie do

ZESTAWIENIE DOCHODÓW I KOSZTÓW

	10 miesięcy b.r.	% sprzedaży	Plan do końca b.r.	% sprzedaży
Przychody (A)	5 295 970 000	100	800 000 000	100
Przychody	-	-	-	-
Przychody z wycieczek	3 557 556 264	67,2	530 000 000	66,3
Przychody z kierownictwa	89 945 000	1,7	15 000 000	1,9
Przychody z stałych płać	282 503 200	5,3	30 000 000	3,8
Przychody z opłat na płać	163 659 422	3,1	18 000 000	2,3
Przychody z usług	524 546 800	9,9	70 000 000	8,8
Przychody z napraw	10 345 900	0,2	3 000 000	0,3
Przychody z transportu	12 548 000	0,3	2 000 000	0,2
Przychody z telekomunikacji	141 554 780	2,7	20 000 000	2,6
Przychody z usług służbowych	142 915 270	2,7	20 000 000	2,6
Przychody z energii, gazu i wody	3 787 600	0,1	1 000 000	0,1
Przychody z administracji	-	-	-	-
Przychody z reklamy	94 131 400	1,8	18 000 000	2,2
Przychody z opłat za ciepłą wodę	2 857 900	0,04	1 000 000	0,1
Przychody z innych niż dochodowy	-	-	-	-
Przychody z opłat za przyzaję	2 545 460	0,03	1 000 000	0,1
Przychody z stałych kosztów	-	-	500 000	0,05
Przychody z działalności	5 029 366 986	95	729 500 000	91,2
Przychody końcowe	-	-	-	-
Przychody z produkcji	5 029 366 986	95	729 500 000	91,2
Przychody z produkcji (B)	-	-	-	-
Przychody netto (A-B)	266 603 814	5	70 500 000	8,8
Przychody netto z pożyczki PAFP	24 365 625	0,5	5 000 000	0,6
Przychody netto z innych kredytów	-	-	-	-
Przychody netto z finansowo	72 007 338	1,4	8 000 000	1,0
Przychody netto z kursu	-	-	-	-
Przychody netto z podatkem	218 962 101	4,1	67 500 000	8,4
Przychody netto dochodowy	41 844 000	1,4	23 800 000	3,0
Przychody netto da	-	-	-	-
Przychody netto do	147 118 101	2,8	43 700 000	5,5

PROGNOZA

	Rok 1	% sprzedaży	Rok 2	% sprzedaży	Rok 3	% sprzedaży
Przychody	11 000 000 000	100	20 100 000 000	100	28 200 000 000	100
1.	-	-	-	-	-	-
2.	6 352 000 000	57,8	12 125 800 000	60,4	17 030 000 000	60,4
3.	120 000 000	1,2	160 000 000	0,8	180 000 000	0,7
4.	540 000 000	4,9	680 000 000	3,4	1 000 000 000	3,5
5.	350 000 000	3,2	400 000 000	2,0	500 000 000	2,0
6.	-	-	-	-	-	-
7.	900 000 000	8,2	1 900 000 000	9,5	2 800 000 000	9,9
8.	22 000 000	0,2	60 000 000	0,3	85 000 000	0,3
9.	150 000 000	1,4	175 000 000	0,9	220 000 000	0,8
10.	231 000 000	2,1	362 000 000	1,8	395 000 000	1,5
11.	230 000 000	2,0	350 000 000	1,7	420 000 000	1,5
12.	11 000 000	0,1	20 000 000	0,1	28 200 000	0,1
13.	-	-	-	-	-	-
14.	143 000 000	1,3	261 000 000	1,3	292 000 000	1,0
15.	41 000 000	0,1	16 100 000	0,1	19 800 000	0,1
16.	-	-	-	-	-	-
17.	30 000 000	0,3	90 000 000	0,5	130 000 000	0,6
18.	-	-	-	-	-	-
Przychody netto	9 100 000 000	82,8	16 600 000 000	82,6	23 200 000 000	82,3
Przychody netto z produkcji	9 100 000 000	82,8	16 600 000 000	82,6	23 200 000 000	82,3
Przychody netto z produkcji (B)	-	-	-	-	-	-
Przychody netto z pożyczki PAFP	1 900 000 000	17,2	3 500 000 000	17,4	5 000 000 000	17,7
Przychody netto z innych kredytów	20 000 000	0,2	30 000 000	0,1	30 000 000	0,1
Przychody netto z finansowo	340 000 000	3,1	510 000 000	2,5	590 000 000	2,1
Przychody netto z kursu	80 000 000	0,9	40 000 000	0,4	30 000 000	0,3
Przychody netto z podatkem	1 500 000 000	13,6	2 980 000 000	14,8	4 410 000 000	15,6
Przychody netto dochodowy	600 000 000	5,5	1 190 000 000	6,9	1 760 000 000	6,2
Przychody netto da	-	-	-	-	-	-
Przychody netto do	900 000 000	8,2	1 790 000 000	8,9	2 650 000 000	9,4

PLANOWANE
ROK

	m-c 1 I kw	m-c 2 II kw	m-c 3 III kw	m-c 4 IV kw	m-c 5
Gotówka początkowa	42,2				
Sprzedaż za gotówkę	4000	1000	1200	1700	
Spłaty bieżących należności	1200	4500	1600	1800	
Przebieg gotówka (A)					
na	2200	2500	2800	3500	
poz. doch.	5	5	5	5	
Zakupy surowców	1423,6	1501,7	1625,4	1803,3	
Płace kierownictwa	32	32	32	34	
Pozostałe płace	130	130	140	140	
Narzuty na płace	80	80	95	95	
Czynsze					
Koszty usług całonocnych	100	200	200	400	
Koszty napraw					
Koszty transportu	20	20	40	70	
Koszty telekomunikacyjne	30	50	60	91	
Podróże służbowe	30	50	70	80	
Koszty energii, gazu i wody	1	3	3	4	
Koszty administracji					
Koszty reklamy	20	30	40	53	
Ubezpieczenia	1	2	4	4	
Podatki łącznie	125	130	150	195	
Pozostałe koszty a.m.	5	5	10	10	
Odsetki od pożyczki PAFP	53,4	77,3	95,6	113,7	
Odsetki od innych kredytów					
Inne koszty finansowe	20	20	20	20	
Suma koszty (B)	2070	2330	2595	3125	
Gotówka brutto (A-B)	125	175	210	380	
Podatkowe inwestycje					
wywidenda					
Gotówka netto	125	175	210	380	
Spłaty pożyczki PAFP					
Spłaty innych pożyczek					
Gotówka końcowa	125	175	210	380	

PRZEPIŁYWKY GOTÓWKI

PIERWSZY 1973

w mln zł	m-c 6	m-c 7	m-c 8	m-c 9	m-c 10	m-c 11	m-c 12
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							

PLANOWANE

ROK DRUGI

	kwartał I	kwartał II	kwartał III	kwartał IV
Gotówka początkowa	900	1290	1712	2135
Sprzedaż za gotówkę	1800	2000	2000	2500
Splaty bieżących należności	2500	2700	3100	3500
	110	20		
Saldo gotówka (A)	900	1290	1712	2135
Przebieg	4300	4700	5100	6000
	10	20		
Zakupy surowców	2663,9	2883,4	3090,9	3488,2
Płace kierownictwa	40	40	40	40
Pozostałe płace	160	170	170	180
Narzucone na płace	90	100	100	110
Czynsze				
Koszty usług	350	400	490	660
Koszty napraw	12	13	15	20
Koszty transportu	30	40	40	65
Koszty telekomunikacyjne	70	90	90	112
Podróże służbowe	70	80	90	110
Koszty energii, gazu i wody	5	5	5	51
Koszty administracji				
Koszty reklamy	50	60	70	81
Ubezpieczenia	4	4	4	4,1
Podatki łącznie	220	260	310	400
Pozostałe koszty am.	15	18	22	35
Odsetki od pożyczki PAFP	120,7	124,6	130,1	134,6
Odsetki od innych kredytów				
Inne koszty finansowe	20	10	10	
Saldo koszty (B)	3920	4298	4677	5445
Gotówka brutto (A-B)	390	422	423	555
Podatkowe inwestycje				
Wydividenda				
Gotówka netto	390	422	423	555
	900	1290	1712	2135
Splaty pożyczki PAFP				
Splaty innych pożyczek				
Gotówka końcowa	1290	1712	2135	2690

PRZEPIŁYWKY GOTÓWKI

ROK TRZECI

	kwartał I	kwartał II	kwartał III	kwartał IV
	2690	3267	3898	4528
	2000	2200	2500	2800
	4300	4500	4700	5200
	2690	3267	3898	4528
	6300	6700	7200	8000
1.	3907,9	4033,5	4409,0	4680,6
2.	40	40	50	50
3.	220	240	270	270
4.	130	130	145	145
5.				
6.	600	700	700	800
7.	15	20	20	30
8.	40	50	60	70
9.	70	80	90	155
10.	90	100	110	120
11.			7	7,2
12.				
13.	60	60	60	112
14.	4	4	5	6,8
15.	370	420	450	520
16.	30	40	45	65
17.	139,1	144,5	149	157,4
18.				
19.				
	5723	6099	6570	7188
	577	631	630	812
	577	631	630	812
	2690	3267	3898	4528
	3267	3898	4528	5340
			Splata kred.-	3853
			Pozostaje	1529

MIEJSCE NA DODATKOWE INFORMACJE

1. do wyliczenia oprocentowania kredytu w okresie 1.I.1993. - 30.XII.1995 przyjęto wzrost kursu dolara o 9 zł dziennie
- jako podstawę ustalenia kursu przyjęto tabelę NBP nr 219 z 6.XI.1992 - średni kurs dolara = 15.456,- zł
 - kurs spłaty odsetek w okresach kwartalnych przy założeniach j.w.
- | | |
|-----------|-------------|
| 1.01.1993 | 16.050,- zł |
| 1.04.1993 | 16.860,- zł |
| 1.07.1993 | 17.670,- zł |
| 1.10.1993 | 18.480,- zł |
| 1.01.1994 | 19.210,- zł |
| 1.04.1994 | 20.020,- zł |
| 1.07.1994 | 20.830,- zł |
| 1.10.1994 | 21.640,- zł |
| 1.01.1995 | 22.450,- zł |
| 1.04.1995 | 23.260,- zł |
| 1.07.1995 | 24.070,- zł |
| 1.10.1995 | 24.800,- zł |
2. dla ustalenia kwoty kredytu pobranego - przyjęto kurs z 1.01.1993 t.j - 16.050,- zł
3. dla ustalenia kwoty kredytu do spłaty - przyjęto kurs na 1.01.1996 t.j. 25.690,- zł

4. do wyliczenia kwoty odsetek przyjęto oprocentowanie kredytu wraz z kosztami operacji bankowej i prowizjami - w wysokości 16 % rocznie.
5. wysokość odsetek ustalano przy założeniu kwartalnych okresów spłaty odsetek od kredytu wykorzystanego z uwzględnieniem w/w wzrostu kursu dolara.
6. przeprowadzono szczegółową analizę stopnia opłacalności kredytu dewizowego w stosunku do kosztu kredytu złotówkowego przy założeniu wzrostu kursu o 9 zł dziennie i o 15 zł dziennie.
7. przeprowadzono analizę stopnia ryzyka kredytu i możliwości jego spłaty przy założeniu skokowego wzrostu kursu dolara w okresie trwania umowy kredytowej o 3000 zł i o 5000 zł.
8. wysokość odpisów amortyzacyjnych wyliczono przy założeniu niezmiennych stawek amortyzacji w okresie trwania umowy i dokonaniu zakupów inwestycyjnych z kredytu i środków własnych w wysokości ok. 100.000,- dolarów.
9. wysokość kosztów podróży służbowych wyliczono
- dla podróży zagranicznych w oparciu o obowiązujące stawki diet i kursy walut z uwzględnieniem wzrostu j.w.
 - dla podróży krajowych - wg. obowiązujących stawek z uwzględnieniem przewidywanej inflacji
10. koszty płac ustalono uwzględniając przewidywany wzrost zatrudnienia w okresie trwania umowy - związany ze wzrostem zdolności produkcyjnych -

c.d 10. - przy założeniu wzrostu płac / średniej
płacy miesięcznej / o ok. 1500000,- zł brutto w
każdym roku.

11. wpływ kursu walut na na zysk brutto i
koszty materiałowe wyliczono na podstawie
wielkości zakupów materiałowych dewizowych
w okresie 1-IX.92, osiągniętego w tym okresie
zysku brutto oraz w przewidywanych w latach
1993 - 1995 zakupów materiałowych przy
założeniu prolongaty terminu płatności do 60
dni od daty dostawy.

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SP

POLSKO-AMERYKAŃSKI FUNDUSZ PRZEDSIĘBIORCZOŚCI

OSOBISTY KWESTIONARIUSZ INFORMACYJNY

IMIĘ I NAZWISKO: Władysław Stróżyk

ADRES ZAMIESZKANIA: Poznań 60-193 Poznań

ul. Andersena 25

NUMER TELEFONU: _____

JEŚLI POD POWYŻSZYM ADRESEM MIESZKA PAN/PANI MNIEJ NIŻ 10 LAT,

PROSZĘ PODAĆ POPRZEDNI ADRES: nie dotyczy

od 1975

DATA URODZENIA: 16.05.1936 MIEJSCE URODZENIA: Opalenica

OBYWATELSTWO: polskie ZAWÓD: inżynier mechanik

WYKSZTAŁCENIE I KWALIFIKACJE: wyższe Politechnika Poznańska

dr nauk techn. WAT, specjalizacja zawodowa II st. z zakresu
sprężarek, rzeczoznawca SIMP.

CZY BYŁ PAN/PANI KIEDYKOLWIEK KARANY/A? (jeśli tak, proszę podać szczegóły)

nie

CZY NIE BYŁ PAN/PANI KIEDYKOLWIEK W STANIE WYWIĄZAĆ SIĘ ZE
ZOBOWIĄZAŃ FINANSOWYCH? (jeśli tak, proszę podać szczegóły)

nie

95

POLSKO-AMERYKAŃSKI FUNDUSZ PRZEDSIĘBIORCZOŚCI

HISTORIA ZATRUDNIENIA:

Od	Do	Zakład pracy	Stanowisko
1960	1961	Z-dy Elektrotechn. AICO P-ń	technolog
1961	1963	Centralny Ośrodek Rozw. Kolejn.	konstruktor
1963	1989	ZM POMET Poznań	Gł. Konstruktor- -Gł. Spec. d. s Sprężarek

DANE DOTYCZĄCE PODMIOTÓW GOSPODARCZYCH, W DZIAŁALNOŚĆ KTÓRYCH JEST PAN/PANI ZAANGAŻOWANA (poza podmiotem, którego dotyczy niniejszy wniosek): nie jestem

Nazwa i adres	Data nabycia	Status prawny	Wielkość udziału	Rodzaj działalności

OSOBY POZOSTAJĄCE Z WNIOSKODAWCĄ WE WSPÓLNYM GOSPODARSTWIE DOMOWYM:

Imię i nazwisko	Pokrewieństwo	Wiek
Maria Ziólkiewicz-Stróżyk	żona	51
Piotr Stróżyk	syn	27
Irena Ziólkiewicz	teściowa	83

MIESIĘCZNE PRZYCHODY RODZINY (wraz z wnioskodawcą): 15.000.000,-

ŁĄCZNE MIESIĘCZNE WYDATKI: 11 mln

ŹRÓDŁA PRZYCHODÓW:		
Wynagrodzenie za pracę		<u>12.000.000,-</u>
Dywidenda z przedsiębiorstwa		<u>-</u>
Dochód z nieruchomości		<u>-</u>
Inne dochody (wymienić prace zlecane, renta)		<u>5.000.000,-</u>

2/6

POLSKO-AMERYKAŃSKI FUNDUSZ PRZEDSIĘBIORCZOŚCI

OSOBISTE ZESTAWIENIE FINANSOWE NA DZIEŃ 30-11-92

AKTYWA	PLZ	PASYWA	PLZ
Gotówka w domu i w banku	80 mln	Pożyczki otrzymane	-
Papiery wartościowe	_____	Inne zobowiązania	_____
Należności	_____		
Pożyczki udzielone	_____		
Nieruchomości	1100 mln		
Pojazdy	4 mln		
Inne aktywa	_____	Wartość netto	-
RAZEM AKTYWA	1184 mln	RAZEM PASYWA+	-
		+ Wartość netto	-

LOKATY TERMINOWE nie ma

Kwota	Okres	Do kiedy?	W jakim banku?
_____	_____	_____	_____
_____	_____	_____	_____

PAPIERY WARTOŚCIOWE nie ma

Nazwa	Ilość	Nominał	Aktualna wartość rynkowa
_____	_____	_____	_____
_____	_____	_____	_____

POŻYCZKI UDZIELONE

Pożyczkobiorca	Kwota pożyczki	Kwota do spłaty	Termin spłaty	Stopa %	Zabezpieczenie
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

INNE NALEŻNOŚCI (proszę opisać) nie ma

POLSKO-AMERYKAŃSKI FUNDUSZ PRZEDSIĘBIORCZOŚCI

NIERUCHOMOŚCI

Lokalizacja	Powierz- chnia	Data nabycia	Wartość rynkowa	Sposób wykorzystania
Poznań	310 m ²	1975	1,1 mld	dom jednorodzinny

POJAZDY

Marka	Rok produkcji	Wartość rynkowa
Fiat 126 P	1979	4 mln

INNE AKTYWA (proszę opisać)

POŻYCZKI OTRZYMANE nie mam

Pożyczkodawca	Kwota pożyczki	Kwota do spłaty	Termin spłaty	Stopa %	Zabezpieczenie

INNE ZOBOWIĄZANIA (proszę opisać) nie mam

CZY POSIADA PAN/PANI JAKIEŚ INNE ZOBOWIĄZANIA (NP. Z TYTUŁU
UDZIELONYCH PORECZEŃ)? (Jeśli tak, proszę opisać) nie mam

af

Z Y C I O R Y S

Urodziłem się 16 maja 1936 r. w Opalenicy. Szkołę Podstawową Nr 26 w Poznaniu ukończyłem w 1950r. a potem Liceum Ogólnokształcące im. I. Paderewskiego w 1954 r.

W 1960 r. uzyskałem dyplom mgr inż. mechanika na Wydziale Budowy Maszyn Politechniki Poznańskiej.

Początkowo pracowałem jako technolog w Poznańskich zakładach Elektrotechnicznych a następnie jako Konstruktor w Centralnym Ośrodku Badawczo-Rozwojowym Kolejnictwa w Poznaniu.

Od 1963 r. moją praktykę zawodową związałem z dziedziną sprężarek, kiedy to rozpocząłem pracę w Biurze Konstrukcyjnym Zakładów Metalurgicznych POMET w Poznaniu uruchamiających w tym czasie produkcję sprężarek. Brałem udział we wdrażaniu tej produkcji na wszystkich etapach. Początkowo pracowałem jako konstruktor, następnie jako kierownik Sekcji Prób a następnie jako zastępca Gł. Konstruktora do spraw studiów i badań. Od 1975 r. do 1989 r. byłem zatrudniony jako Główny Konstruktor a następnie Główny Specjalista d. s. Sprężarek.

Podlegała mi całość problematyki sprężarek poczynając od spraw rozwojowych przez technologię aż do etapu produkcji i polityki marketingowej.

W 1975 r. na podstawie przedłożonej rozprawy doktorskiej p.t. "Badania docierania sprężarek" uzyskałem stopień naukowy doktora nauk technicznych w Wojskowej Akademii Technicznej w Warszawie.

Brałem aktywny udział w pracach środowiska inżynierskiego i naukowego związanego z dziedziną budowy maszyn a szczególnie z zagadnieniami trybologii (trwałości maszyn, problemy tarcia i smarowania). Utrzymywałem również szerokie kontakty zawodowe i osobiste z przedstawicielami zagranicznych i krajowych producentów sprężarek oraz firm współpracujących z tą branżą.

W trakcie praktyki zawodowej miałem okazję osobiście zaznajomić się z organizacją produkcji, technologią i produkcją takich zakładów jak : Fabryka Sprężarek ATLAS COPCO w Szwecji, AERZENER MASCHINENFABRIK , MAN-GHH, ECOAIR, RKR w Niemczech, CKD Żandów w Czechosłowacji, LEBERSDORFER MASCHINENFABRIK , HOERBIGER w Austrii FABRYKA SPREZAREK z Gery w byłym NRD oraz 3 przedsiębiorstw dealerskich i serwisowych w USA.

Politechnika Poznańska zapraszała mnie jako wykładowcę na studiach podyplomowych dla inżynierów oraz jako konsultanta prac dyplomowych z zakresu sprężarek.

Współpracowałem również przy rozwiązywaniu trudnych problemów badawczo-wdrożeniowych z Ośrodkiem Badawczo-Rozwojowym Przemysłu Chemicznego w Krakowie , Uniwersytetem Śląskim w Katowicach , Instytutem Technologii Nafty w Warszawie.

Do moich najważniejszych osiągnięć zawodowych zaliczam :

- udział w opracowaniu i wdrożeniu do produkcji i typoszeregu sprężarek tłokowych ,
- zorganizowanie laboratorium , stacji prób i badań sprężarek,
- opracowanie, przebadanie i wdrożenie do produkcji 15 różnego typu agregatów sprężarkowych w tym specjalistycznych agregatów hamulcowych dla kolejnictwa,
- udział w opracowaniu i wdrożeniu do produkcji rodziny tłokowych sprężarek bezolejowych w tym również specjalnych sprężarek na 320 atn,
- opracowanie i wdrożenie do produkcji specjalnych agregatów sprężarkowych dla potrzeb górnictwa i kolejnictwa na bazie sprężarek śrubowych,
- opracowanie i wdrożenie do produkcji agregatu sprężarkowo-próżniowego na bazie sprężarki bezolejowej dla układu chłodzenia akcelatora jonów Instytutu Fizyki UJ.

Jestem autorem 25 projektów racjonalizatorskich. Za swoje wynalazki uzyskałem świadectwa autorskie z Urzędu Patentowego, 8 Krajowych i 3 zagraniczne świadectwa o dokonaniu wynalazku.

Wszystkie moje wynalazki zostały wdrożone do produkcji.

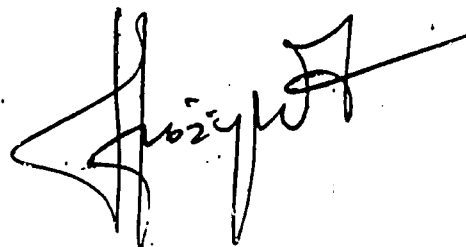
Jestem autorem wielu ekspertyz i rozwiązań wykonywanych w ramach Ośrodka Rzecznostwa i Postępu Technologicznego Stowarzyszenia Inżynierów Mechaników Polskich.

Jestem Rzecznawcą SIMP. W 1979 r. uzyskałem specjalizację zawodową I - go stopnia z dziedziny konstrukcji sprężarek powietrza i gazów a w 1986 r. II stopień specjalizacji zawodowej.

W 1989 r. zorganizowałem Przedsiębiorstwo Innowacyjno-Wdrożeniowe Sprężarek ASPOL.

W 1990 r. przeszedłem przeszkolenie z zakresu " Jak Kierować przedsiębiorstwem w gospodarce rynkowej" organizowane dla polskich menagerów przez Polish American Partnership for Enterprise Development.

W czerwcu 1991 r. doprowadziłem do powołania prywatnej spółki ASKOM., której jestem dyrektorem.



OSOBISTY KWESTIONARIUSZ INFORMACYJNY

IMIĘ I NAZWISKO: Wojciech Krzewiński

ADRES ZAMIESZKANIA: 60-193 Poznań
ul. Makowej Panienki 1

NUMER TELEFONU: 481 555

JEŚLI POD POWYŻSZYM ADRESEM MIESZKA PAN/PANI MNIEJ NIŻ 10 LAT,
PROSZĘ PODAĆ POPRZEDNI ADRES: od 1978

DATA URODZENIA: 20-06-1947 MIEJSCE URODZENIA: Poznań

OBYWATELSTWO: polskie ZAWÓD: technolog drewna

WYKSZTAŁCENIE I KWALIFIKACJE: wyższe , mgr inż.

CZY BYŁ PAN/PANI KIEDYKOLWIEK KARANY/A? (jeśli tak, proszę podać szczegóły)

nie

CZY NIE BYŁ PAN/PANI KIEDYKOLWIEK W STANIE WYWIĄZAĆ SIĘ ZE
ZOBOWIĄZAŃ FINANSOWYCH? (jeśli tak, proszę podać szczegóły)..

nie

POLSKO-AMERYKAŃSKI FUNDUSZ PRZEDSIĘBIORCZOŚCI

HISTORIA ZATRUDNIENIA:

Od	Do	Zakład pracy	Stanowisko
1972	1975	Ośrodek Badaw-Rozw.Meblarstwa	konstruktor
1975	1979	P.Bruning Scientific Instr.	NL doradca techn/dyrektor
1980		Vitatron Medical NL	Sales manager
1991		E.MERCK Darmstadt D	Sales Manager

DANE DOTYCZĄCE PODMIOTÓW GOSPODARCZYCH, W DZIAŁALNOŚĆ KTÓRYCH JEST PAN/PANI ZAANGAŻOWANA (poza podmiotem, którego dotyczy niniejszy wniosek): nie jest

Nazwa i adres	Data nabycia	Status prawny	Wielkość udziału	Rodzaj działalności

OSOBY POZOSTAJĄCE Z WNIOSKODAWCĄ WE WSPÓLNYM GOSPODARSTWIE DOMOWYM:

Imię i nazwisko	Pokrewieństwo	Wiek
Elżbieta Krzewińska	żona	43 lata
Olga Krzewińska	córka	20
Maja Krzewińska	córka	14

MIESIĘCZNE PRZYCHODY RODZINY (wraz z wnioskodawcą): ponad 25 mln

ŁĄCZNE MIESIĘCZNE WYDATKI: 15 mln

ŹRÓDŁA PRZYCHODÓW:	
Wynagrodzenie za pracę	<u>tak</u>
Dywidenda z przedsiębiorstwa	<u>-</u>
Dochód z nieruchomości	<u>-</u>
Inne dochody (wymienić)	<u>-</u>

POLSKO-AMERYKAŃSKI FUNDUSZ PRZEDSIĘBIORCZOŚCI

OSOBISTE ZESTAWIENIE FINANSOWE NA DZIEŃ 28-11-92

AKTYWA	PLZ	PASYWA	PLZ
Gotówka w domu i w banku	0,5 mld	Pożyczki otrzymane	-
Papiery wartościowe	_____	Inne zobowiązania	_____
Należności	_____		
Pożyczki udzielone	2 mld		
Nieruchomości	_____		
Pojazdy	0,42 mld		
Inne aktywa	_____	Wartość netto	-
RAZEM AKTYWA	pcnad 3 mld	RAZEM PASYWA+	-
		+ Wartość netto	

LOKATY TERMINOWE nie ma

Kwota	Okres	Do kiedy?	W jakim banku?
_____	_____	_____	_____
_____	_____	_____	_____

PAPIERY WARTOŚCIOWE nie ma

Nazwa	Ilość	Nominał	Aktualna wartość rynkowa
_____	_____	_____	_____
_____	_____	_____	_____

POŻYCZKI UDZIELONE nie ma

Pożyczkobiorca	Kwota pożyczki	Kwota do spłaty	Termin spłaty	Stopa %	Zabezpieczenie
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

INNE NALEŻNOŚCI (proszę opisać) nie ma

POLSKO-AMERYKAŃSKI FUNDUSZ PRZEDSIĘBIORCZOŚCI

NIERUCHOMOŚCI

Lokalizacja	Powierzchnia	Data nabycia	Wartość rynkowa	Sposób wykorzystania
Poznań	500 m ²	1978	1,5 mld	dom jednorodzinny
Skórzewo	3360 m ²	1990	0,5 mld	ogród

POJAZDY

Marka	Rok produkcji	Wartość rynkowa
BMW 524	1990	300 mln
Daihatsu	1992	120 mln

INNE AKTYWA (proszę opisać) _____

POŻYCZKI OTRZYMANE nie ma

Pożyczkodawca	Kwota pożyczki	Kwota do spłaty	Termin spłaty	Stopa %	Zabezpieczenie

INNE ZOBOWIĄZANIA (proszę opisać) nie ma

CZY POSIADA PAN/PANI JAKIEŚ INNE ZOBOWIĄZANIA (NP. Z TYTUŁU UDZIELONYCH PORECZEŃ)? (Jeśli tak, proszę opisać) nie ma

Ż Y C I O R Y S

Urodziłem się dnia 20 czerwca 1947 roku w Poznaniu w rodzinie inteligenckiej. W roku 1961 ukończyłem szkołę podstawową nr 34, a potem w 1965 roku liceum ogólnokształcące nr 1 w Poznaniu. Następnie studiowałem na wydziale Technologii Drewna poznańskiej Wyższej Szkoły Rolniczej, który ukończyłem z wynikiem bardzo dobrym w roku 1971, uzyskując tytuł magistra inżyniera mechanicznej technologii drewna. W tym samym roku przystąpiłem do pracy w Ośrodku Badawczo-Rozwojowym Meblarstwa w Poznaniu na stanowisku konstruktora urządzeń mechanicznych. W roku 1975 wyjechałem na kontrakt PHZ Polservice do Holandii do firmy Paul Bruning Scientific Instruments, gdzie pracowałem do 1979 roku najpierw jako doradca techniczny w zakresie aparatury laboratoryjnej, a od 1976 jako dyrektor firmy. W roku 1980 przeszedłem do firmy Vitatron Medical w Holandii na stanowisko szefa sprzedaży sprzętu medycznego w kilku krajach Europy Wschodniej. Z firmą tą współpracuję do dnia dzisiejszego, będąc jednocześnie od roku 1991 przedstawicielem na Polskę i Czechosłowację sekcji aparatury laboratoryjnej niemieckiej firmy E. Merck - Darmstadt. Od roku 1971 jestem żonaty, mam dwie córki w wieku 20 i 14 lat.



Wojciech R. Krzewiński

KENNETH J. MACEK

ul. Nowiniarska 1, m 28
00-235 Warsaw, POLAND
PHONE/FAX (48-2) 635-4531

December 28, 1992

Mr. Marek Kulczycki, President
The Enterprise Credit Corporation
Polish-American Enterprise Fund
ul. Towarowa 25
00-869 Warszawa, POLAND

Dear Mr. Kulczycki:

Enclosed find three (3) copies of an application, from ELCO Sp. z.o.o., (Warsaw), for US\$ 50,000 credit. I have worked together with the management of ELCO for several months to develop an understanding of their business, technology, and competitive situation. I have also spent considerable time conducting an assessment of ELCO's domestic markets for small water filtration systems and wastewater treatment systems. I have assisted ELCO in the preparation of the enclosed application.

As a result of these activities, I have formed my own ideas about ELCO's business, strategy, management, and their understanding of their own business and markets. Enclosed also are three (3) copies of a brief "Prospectus" describing, in conventional western terms, my understanding of their business, strategy and markets.

I trust you'll find this information useful in evaluating the enclosed credit application from ELCO. If I can be of further assistance to you, or your staff, please don't hesitate to contact me.

Sincerely,



Kenneth J. Macek, Ph.D.
Resident Environmental Business Advisor,
Central Europe

Enclosures:

Zdobywcy SUPER-EKO '92

* **EKOFINN-POL** Gdańsk
ELCO Warszawa
HAD Milanówek
FORVEST Koszalin
MATZ Poznań
WAMAG Wałbrzych



Z przyjemnością informujemy, że po raz pierwszy zorganizowany na Międzynarodowych Targach Ekologicznych POLEKO w Poznaniu konkurs o Nagrodę Publiczności „SUPER-EKO '92” okazał się strzałem w dziesiątkę. Kilka tysięcy głosujących, blisko 100 wyrobów linii technologicznych itp. zgłoszonych do Nagrody, zainteresowanie, dosłowne obłędzenie zwłaszcza przy codziennym losowaniu upominków dla publiczności (no i przy ogłoszeniu końcowego werdyktu), stoiska NFOSiGW i BOS, w którym był wyłożony „Agrobazar” ze specjalnym kuponem — te fakty mówią za siebie.

A oto laureaci „SUPER-EKO '92”:

- **ELCO** z Warszawy — za urządzenia do oczyszczania i uzdatniania wody
- **EKOFINN-POL** z Gdańska — za oczyszczalnię ścieków BIOCLERE
- **FORVEST** z Koszalina — za ekologiczną technologię tuczu trzody chlewanej
- **HAD** z Milanówka — za środki alternatywne z zakresu biologii gospodarczej posiadające zdolność szybkiej biodegradacji w środowisku naturalnym

- **MATZ** z Poznania — za zestaw biopreparatów do oczyszczania ścieków
- **WAMAG** Zakłady Urzędzeń Górniczych z Wałbrzycha — za linie technologiczne do produkcji paliwa ekologicznie czystego w postaci brykietów z trocin

Wszystkie te firmy otrzymają promocję na łamach „Agrobazaru” i na antenie Polskiego Radia w audycjach Redakcji Rolnej na koszt fundatorów i współorganizatorów konkursu „SUPER-EKO '92” — Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej oraz Banku Ochrony Środowiska.

Wysoką ocenę publiczności zyskały też wystawiane wyroby w stoiskach firm: ENVIROTECH Poznań, AEGUMONT-VARSOVIE, AQUASYS Warszawa, BIALOGON Kielce, BIOX Głogów, DAJAE Gdańsk, CRYLOMAG Międzyrzecz Wlkp., DZWIGOPOL Łódź, SWA COMPANY, NOXON AB Malmö (Szwecja), POLIMEX-CEKOP Warszawa, PIROMAC TANFOLIO Calvisano (Włochy), POWOGAZ Poznań, SANTECH Toruń, MAXIMAL Poznań, POM Rawa Mazowiecka, EKOBUD Inowrocław.

„W następnym numerze „AB” prezentacja laureatów SUPER-EKO '92 — firm: EKOFINN-POL, ELCO, HAD, FORVEST, MATZ, WAMAG”.

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PROSPECTUS

Submitted to:

**THE ENTERPRISE CREDIT CORPORATION
POLISH-AMERICAN ENTERPRISE FUND
WARSAW, POLAND**

Submitted by:

ELCO Spo. z.o.o.
ul. Gorczewska 62/64
01-401 WARSZAWA
Tel: 36.01.55

DECEMBER 28, 1992

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DISCLOSURE

The U. S. Agency for International Development has provided a Resident (Warsaw) Environmental Business Advisor (the Advisor) to the private environmental business sectors in Poland, Hungary, and the Czech and Slovak Republics.

The principal function of the Advisor is to assist private environmental businesses to improve their competitive position in their respective markets. The Advisor directs his activities toward "enterprise strengthening." He first screens the environmental business sector to select domestic environmental firms suitable for enterprise strengthening. The selection process targets firms that appear to have (a) identified market needs; (b) established real competitive advantages; and (c) developed a strategy to leverage those advantages into market penetration and, ultimately, the largest market share. He then assists those domestic firms to access sources of credit and capital, U.S. technologies, and/or joint-venture partners.

The Advisor prepared this addendum (Prospectus) to the enclosed application for credit from ELCO Spo. z.o.o. (the Company). The Prospectus is intended to support the Company's application to the Polish-American Enterprise Fund's Enterprise Credit Corporation (ECC) for credit. The Advisor intends that the information, contained therein, assist the Enterprise Credit Corporation in evaluating the Company's application by describing ELCO's business, competitive advantages and strategy in typical western management terms.

The material concerning the Company's business, markets and strategy reflects the understanding of the AID Advisor resulting from (a) representations made to him by the management of ELCO Spo. z.o.o.; (b) his understanding of the current environmental conditions in Poland; and (c) his familiarity with the environmental products private sector.

The Advisor provided his assistance to the Company under a contract with the U.S. Agency for International Development. The Advisor's assistance does not represent, nor does it imply, endorsement of the Company's application by the U.S. Government. The Advisor assumes that the Enterprise Credit Corporation will conduct its normal due diligence activities before taking any action concerning this application.

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EXECUTIVE SUMMARY

ELCO Sp. z.o.o., Warsaw, (the Company) provides low volume water filtration devices for the removal of iron and manganese from water. These standard products are used in domiciles that rely on groundwater wells, small commercial businesses (restaurants, gas stations), small industries (e.g. food processing) that have special water quality requirements, and public buildings (e.g. office buildings, schools). The components for these water filtration systems are currently manufactured by subcontractors and assembled by ELCO.

The Company is applying for credits of US\$ 50,000.00. The funds will be combined with approximately PZ 250 Million of the ELCO's own funds to implement the Company's three pronged business strategy to stimulate sales growth of its existing products, expand its product line to better serve its existing customer base, and improve profit margins. The Company's strategy leverages its competitive price and performance advantage with its rapidly growing reputation for quality water filtration products.

Approximately 65% of the combined funds will be utilized to purchase equipment and lease space in order that ELCO can manufacture all components for its water filtration units. The Company expects that manufacturing its own components will allow it to lower production costs; improve product performance, reliability and appearance; and provide the flexibility required to configure standard units into custom systems to satisfy specific customer needs.

Approximately 15% of the combined funds will be used to fund an aggressive television advertising campaign to increase awareness of the Company's products among the potential customer base.

Finally, approximately 25% of the combined funds will be utilized to (a) procure a license from the Warsaw Technical University for the rights to manufacture and sell an innovative low volume biological wastewater treatment system, and (b) develop a bench scale prototype system for testing.

INTRODUCTION

ELCO Sp. z.o.o. (the Company) was organized in 1987 to conduct various commercial activities in Poland. Since 1990, under a license from the Warsaw Technical University, it has produced and sold inexpensive, simple, low volume (1.5-4.5 m³) water filtration units to individual home owners and plumbers. Recently, it began providing larger integrated filtration systems to owners or operators of small commercial businesses (e.g. restaurants, offices), and of public buildings (e.g. offices, schools.)

To date the Company has installed over 400 water filtration devices in Poland, most in the suburbs of Warsaw (See Figure 1). Most recently, the Ministry of Environment & Natural Resources selected the Company to install a new water filtration system (four units) at its principal offices in Warsaw. This system, the largest yet installed by the Company (four units), also provides filtered water to the school adjacent to the Ministry's offices.

The company currently has the components of its water filtration products manufactured variously by sub-contractors, some outside of Warsaw (e.g. Slupsk). The Company assembles the products and is responsible for quality control. The demand for ELCO's water filtration devices is increasing rapidly. The Company is seeking a credit from the Enterprise Credit Corporation to establish its own manufacturing capabilities. Such capabilities will allow the company to increase production, lower manufacturing costs, improve product quality and reliability, and be flexible in designing custom systems to meet specific client needs for water purification.

The Company currently distributes its products through a network of agents that install and service the Company's products. Now this network consists of approximately 10 agents clustered around Warsaw, and one each in Krakow and Stalowa Wola. The Company would like to increase the scope of this distribution network. ELCO plans to conduct a national television advertising campaign to reach a broader range of potential customers, and to attract additional distribution agents.

The Company believes that the requested credits will provide the necessary infusion of capital to allow it to gain market leadership in its principal market niche in Poland. Also, the Company believes there exists significant export potential for its water filtration systems to countries in Western Europe (e.g. Finland) and other countries of Central and Eastern Europe (e.g. Czechoslovakia.)

Finally, the Company has perceived a demand, within its present market niche (the same customers), for low cost, low volume packaged biological wastewater treatment systems. The Company recognizes that suppliers have cluttered this market segment with a variety of such products. However, it has negotiated with the Warsaw Technical University and with Dr. Ryzard Wenda for the design of an innovative, low cost, highly efficient low volume wastewater treatment system.

ELCO's management intends to penetrate the domestic market for low volume wastewater treatment systems. The Company believes that the superior technical performance and lower cost of this new technology, and its growing marketing presence and strength will allow it to succeed. Thus, the Company is also seeking the credit from the Enterprise Credit Corporation to license, manufacture and market the low volume wastewater treatment systems designed by Dr. Wenda and the Warsaw Technical University.

MARKETS

The Company defines its markets in terms of the products provided, customers, end uses served, and the driving forces motivating customers to purchase their products. The common denominator to the current and future market segments served by the Company are the customer sets.

Products

Currently ELCO supplies low volume water filtration devices. These devices range from units designed for private home (4 persons) to systems (multiple units) designed to treat volumes typical of restaurants, small hotels, small commercial and public buildings. The unit's simplistic design utilizes air and specially selected granular sand (Polish translation = *zwir*), of two particular diameters (0.5-0.8, 0.8-2.0 mm.), to remove oxidized iron and manganese. The filtration material never needs to be replaced, requiring only periodic (18-21 days) backflushing. Customers backflush the systems manually in only 15 minutes.

ELCO's water filtration systems complement imported under-the-sink drinking water purification devices. Those devices remove organic contaminants, bacterial contamination and nutrients from municipal water supply systems. In fact, without such pretreatment for iron removal, these under the sink devices are prone to rapid corrosion from the high levels of iron typically found in groundwater wells. Furthermore, unlike carbon filtration units, the Company's devices treat not only drinking water but most other domestic water (e.g. laundry, bath, etc.) The configuration of the Company's devices allow for bypassing the filter for other water uses (e.g. sanitary, gardening, etc.) The Company's devices typically sell for approximately 5 Million Zlotys/unit, well below the price of competitor's devices.

The Company has negotiated for the design of similar low volume packaged biological sanitary wastewater treatment systems. ELCO plans to provide these systems for use in buildings inhabited by 5-70 persons, or for commercial and public office buildings that are typically occupied by 30-500 persons. Wastewater treated by the proposed treatment systems will be suitable for direct discharge into surface waters or for leaching into the ground. The Company anticipates that these systems will sell for approximately 50 million zlotys.

Customers

The Company's sells filtration devices mostly (@ 90%) to home owners that depend upon well water (which typically does not contain bacteria or organic pollutants). It also sells products to plumbers involved in the construction of new real estate, to operators of small commercial businesses concerned about sanitation and health (e.g. food processors, hotels, restaurants), and to administrators of communal buildings (e.g. schools, institutions). The Company estimates that there are 3-4 million domiciles, and 6-8 thousand commercial enterprises and public buildings that could be potential customers for its water filtration devices.

In addition to Poland's Ministry of Environment and Natural resources, several western firms, now operating in Poland, have selected the Company's systems for water filtration. For example, the Austrian firm VITTON, which recently established a manufacturing facility on Poland has selected an ELCO system to satisfy its water filtration requirements. The Company has installed other systems in the food processing industry, where water quality requirements are obvious. For example, the Polish-Austrian joint venture Linhoff has recently selected ELCO to provide a water filtration system for its fruit processing plant in Radonice.

ELCO also recognizes a need among many of its customers, and among small villages, for low volume sanitary (communal) wastewater treatment systems. The Company believes the distribution of customers for wastewater treatment systems is probably the reverse of that for the water filtration systems (i.e. @ 10% domestic, @ 90% commercial, public and communal).

End Use

Customers rely on the Company's water filtration products to provide water that meets sanitary standards and is considered safe for human consumption, more suitable for other domestic uses (e.g. bathing, laundry), and that reduces corrosion of pipes and boilers in the home. The commercial customers rely on these products for water that is safer to drink, results in products (e.g. food) that taste better and are less contaminated, and results in longer equipment life. The Company believes that many of those same customers would purchase its sanitary wastewater treatment systems.

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Driving Forces

Increasing concern for human health, environmental awareness, environmental regulations and new construction regulations all contribute to the demand for the Company's products for treating water and communal wastewater. Those purchases would help customers meet local health standards, reduce the discharge of environmental pollutants, preserve the quality of nearby groundwater, and generally improve the quality and attractiveness of the natural environment surrounding their place of business or their home.

Approximately 50% of the population of Poland relies on groundwater sources (wells) for their drinking water. Recent data from the Ministry of Environment indicates that more than 70% of groundwater sources of drinking water have manganese and/or iron concentrations that exceed, (by 4-20 times) the drinking water standards set by the San-Epid (Agency for Hygienic Inspection). Such contamination represents a human health hazard. It also reduces the effectiveness of laundry detergents, and results in excessive corrosion of metal pipes, boilers and cooking utensils. ELCO's products effectively reduce the concentration of iron and manganese to below the established sanitary standards.

Conventional wastewater treatment systems for small groups of people are very difficult to justify on economic grounds. However, many local building authorities respond favorably to requests for building permits for new construction and remodeling when applicants include such systems in their proposals. Small "packaged" sewage treatment plants satisfy this demand for solutions to the problem of economies of scale. The company believes that its proposed wastewater treatment systems would provide a low cost solution, highly effective solution to the problem of low volume communal wastewater treatment.

COMPETITION

The market for low volume water filtration devices and systems has only recently emerged in Poland as products become affordable. The market is currently extremely fragmented with no dominant domestic or foreign competitor. The Company believes that it is one of only two domestic competitors that markets such products nationwide. The other major domestic competitor is Prodwodrol (Sulechow), who provide a similarly priced product. However their unit is smaller, requires constant pressurized aeration, and isn't as efficient at removing iron and manganese. Typical prices for competitor's products of comparable performance to ELCO's product are 7-12 Million Zlotys (compared to ELCO's price of 5 Million Zlotys).

Foreign competitors (mainly U.S.) provide "under-the-sink" cartridge devices that treat only drinking water. In addition, those cartridge devices frequently corrode due to the high concentrations of iron and manganese typical of most sources of groundwater. The major Polish importer of "under-the-sink" devices is Electrim (Warsaw). However, their devices are designed to operate in water with less than 1-2 mg/L (iron as Fe^{+++}). Most groundwater (well water) sources in Poland contain 4-12 mg/L iron as Fe^{+++}).

In the area of packaged low volume (<20 m³/day) BIOLOGICAL (???) communal (5-100 inhabitants) wastewater treatment systems, ELCO views Serbiofikon (Krakow) as the major domestic competitor. Many other foreign and domestic competitors provide larger communal wastewater treatment systems. They generally do not provide systems targeted for the same low volume niche that ELCO intends to address.

Competitive Advantages

The major competitive advantage of ELCO's water filtration device is the simplicity of its design. This simple design allows for lower production costs and thus, lower price. Due to its simplicity, ELCO's unit requires less frequent and simpler maintenance, at no additional maintenance costs. Finally, ELCO's system delivers superior performance (iron and manganese removal) compared to other, more expensive, domestic products and to the western "under-

the-sink" devices.

ELCO expects that its major competitive advantages (versus Serbiofikon) in the low volume communal wastewater treatment market segment will be lower price and superior performance. ELCO expects to introduce its biological low volume communal wastewater treatment system to the market at a price of approximately 20 million Zlotys. The comparable Serbiofikon product currently sells for @ 50 Million Zlotys. Furthermore, ELCO's new product will be the only small unit to provide both nitrification (to enhance biodegradation) and denitrification (to remove nutrients before discharge). ????

Competitive Disadvantages

ELCO's major competitive disadvantage is that it does not have control over the production, and thus the production costs, of its products.

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STRATEGY

ELCO's business strategy for the low volume water filtration market is to leverage its competitive price and performance advantages to expand both its distributor and customer base. The company will utilize the requested credit to establish its own manufacturing facility, increase advertising of its existing product line, and expand its product line to include low volume communal wastewater treatment systems for sale to its existing customer base.

Use of Proceeds

Manufacturing its own products will allow the Company to better control and reduce production costs, enhance their product reliability and appearance, and improve quality control. The Company intends to use the bulk of the requested credits (660 Million Zlotys) to purchase manufacturing equipment and expand their existing manufacturing space.

The principal equipment required by the company includes (a) metal finishing equipment to ensure durable exterior finish for the products, (b) equipment to apply the required corrosion resistant lining (polymer) to the interior of the devices, and (c) devices for forming steel into tubular shapes and flanges. The total cost of this equipment is estimated to be 600 Million Zlotys.

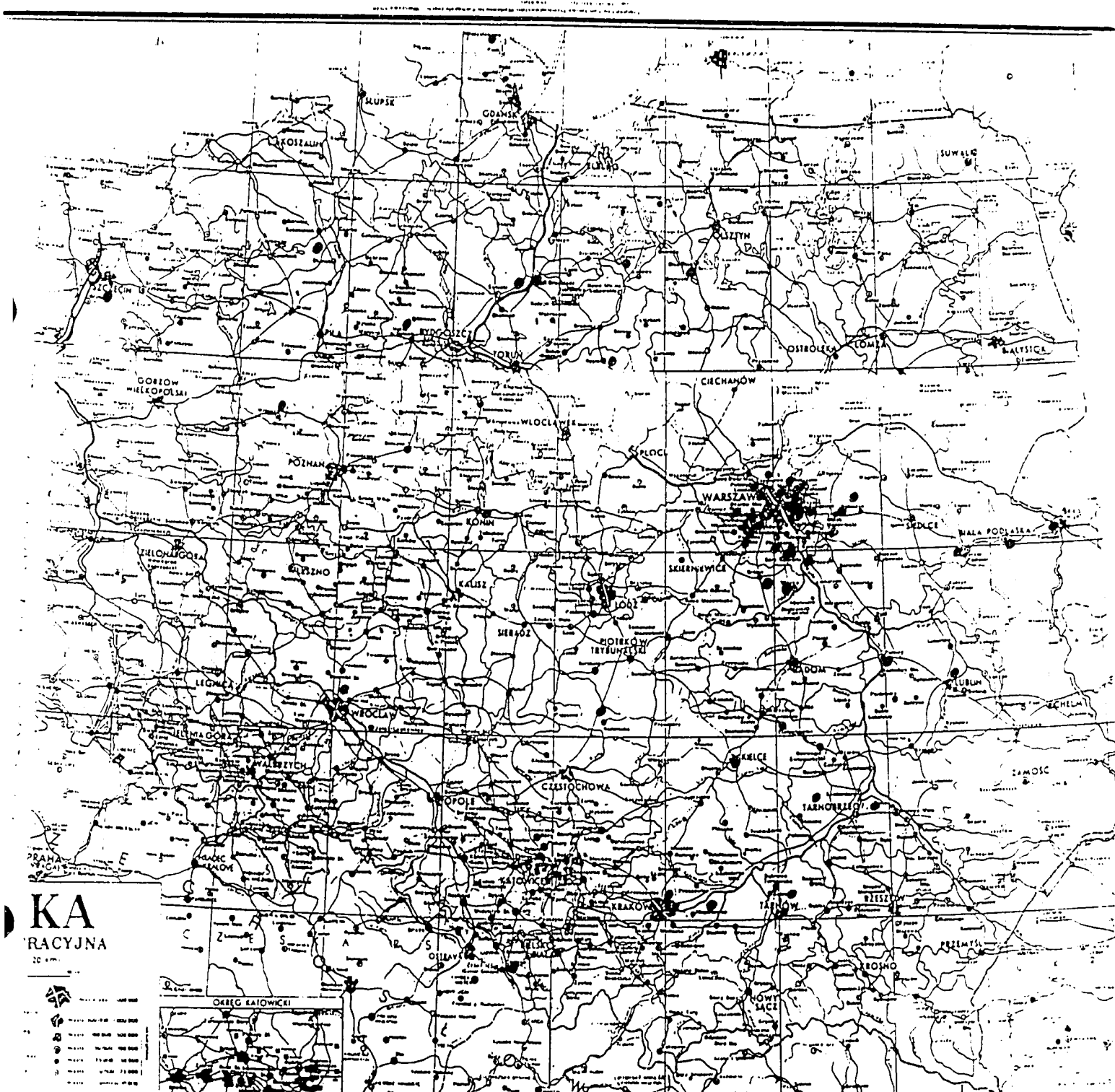
Concurrent to this development program, ELCO also intends to utilize its own capital (150 Million Zlotys) to carry out a national television advertising campaign to increase potential customer's familiarity with its water filtration products. ELCO's advertising will leverage its price and performance advantages with its emerging reputation for quality water filtration products among the environmental community.

The Company will request approval, from the Ministry of Environment & Natural Resources, to cite in its advertising, the Ministry's selection of an ELCO system for use in its own offices (and the adjacent public school facility) in Warsaw. Also, ELCO was one of only five exhibitors (from over 400) at the recent POLEKO Fair in Poznan to be awarded the "SUPER-EKO '92" award from Poland's National Fund for Environmental Protection and Water Management. This award prominently will

be featured in ELCO's television advertising.

Lastly, the Company will utilize the remaining credits (90 Million Zlotys), plus 100 Million Zlotys of its own capital to (i) acquire a license from Dr. Wenda and from Warsaw Technical University for the proprietary low volume biological communal wastewater treatment technology, and (ii) to develop a bench scale prototype unit for testing.

FIGURE 1
DISTRIBUTION OF ELCO WATER FILTRATION DEVICE
INSTALLATIONS IN POLAND DURING 1992.



Polish-American Enterprise Fund

File No.:

Name of the company: "ELCO" Sp. z o.o.

Address: ul. Ks. Skorupki 2, 05-220 Zielonka

Phone: .. 360-155.....

PAEF Window in:

WARSAW - NEW YORK

IMPORTANT!

The applicant is not obliged to incur any charges to the benefit of any person or institution who assisted him in filling-in or preparation of this application. Staff of the Bank where this application is being lodged as well as staff of PAEF can discuss with applicants all or only some of the elements of this application but they are not allowed to accept from the applicant any remuneration in the form of cash, gifts or service, no matter what kind of. The persons are still not allowed to prepare an application for the applicant.

How did you learn about potential of getting a loan of PAEF? Please choose one of the following:

1. Press
2. Radio
3. TelevisionX.....
4. Leaflets and ads at Bank
5. Family, acquaintances
6. Information seminars of PAEF
7. PAEF's borrowers
8. Others

Use of this document in all or part for purposes other than lodging of loan application related to funds of the Polish-American Enterprise Fund (PAEF) requires consent of PAEF.

LOAN APPLICATION

I apply hereby for a loan of 50,000 US dollars
say: fifty thousands USD.....

For the term of 36 month, including the grace period of
6 months.....

for use in financing of: production small volume devices for
treatment of water and waste water.....

Use of the loan	Sum applied for
- purchasing of manufacturing equipment to improve technical quality + reliability	.... 40,000.....
- leasing of productive facilities	4,000
.....
- exclusive licence fee	6,000
	<u>TOTAL</u>
	<u>TOTAL</u> 50,000
Total cost of the project	1,000,000,000 zł....

of that:

Fund's loan: ... 750,000,000 zł....

other loans/credits:

own funds: ... 250,000,000.....

Type of business: production and whole-sale

Business starting date: 1987.....

Current employment: .. 5.....

Employment following completion of the project .. 6.....

Legal status of the company: Limited Liability Company..

Owners: Jerzy Górski, Tadeusz Kasprzyk, Leszek Baryłka

.....

Proposed security related to repayment of the PAEF's loan:

bought appliances, devices, goods and so urces store,
 cooperators guarantee

In case it is planned that also loans/credits others than that of PAEF shall be used for realization of the project, describe their purpose, lenders, relevant terms and conditions and security related to repayment:

not planned

Describe allocation of the own funds involved in the project:

250,000,000 zł

Name and address of the bank where the current account of the company is held:

..Powszechny Bank Kredytowy /PBK/ ..oddz. Wołomin, ..ul. Miła

 DESCRIPTION OF THE COMPANY

(current situation)

ASSORTMENT STRUCTURE OF PRODUCTION/SERVICE

Name of product/service	% of sales
iron contamination water filter	65
selling imported electric lamps	30
selling telephone devices	5

PRODUCTION POTENTIAL (describe)

owned licences, know-how, store place and assembly room hold on lease.

Currently the production potential is used in 30..... %

Production potential following completion of the project (describe) overcoming of technological barrier in tooling surfaces and production automated devices

LOCATION

Does the company feature convenient access? (describe) .yes., by car or trucks.

.....
 Is there a room for parking of vehicles? (describe)
 .. yes.

VALUE OF PRODUCTION OBJECTS

Who is the owner of production objects? (If the company proceeds with business in leased objects, describe lease terms and conditions) leased objects covered monthly. Company has right to do necessary adaptations and extend.

PERMITS/LICENCES

Licences required for starting of the current/planned business of the company: ..not required.....
 Jerzy Górski, Tadeusz Kasprzyk, both graduates of technical.....

MANAGEMENT

Specify surnames, names and qualifications of persons who hold key positions in the company, together with their remuneration:
 Jerzy Górski, Tadeusz Kasprzyk, both are graduates of technical universities

DUTIES AND EXCHANGE RATES

What is the effect of duties and exchange rates on company's business? (describe if the effect is significant)
 ..today is no effectt od duties and exchange rates.....

SALARIES

Average salary in the company: ..4,900,000 zł/month...

COSTS OF MATERIALS AND SUPPLIES

Type of mat'l/supply	Unit price	Monthly consumption	Monthly cost
metal body/trunk	1,8 mln zł	17 pcs	30,6 mln zł
complementary items	0,1 mln zł	17 sets	1,7 mln zł

SUPPLIERS

Total number of suppliers: ...3.....

Specify main suppliers:

Supplier	% of total supply	Type of supplies	Terms of payment	Duration of cooperation
- workshop of metal details.....	filter's body	.....	.....
- Kopalnie Sur. Miner.	filtering sand	.....	.....

CUSTOMERS

Total number of customers: ..200.....

Specify main customers:

Customer	% of total sales	Products sold	Terms of payments	Duration of cooperation
individuals, homeowner	water filters	cash	average 2 years
small commercial business	cash	.....
plumbers, resellers	-----	-----	-----

COMPETITORS

How many companies offer the same product? a few companies.....

Main competitors (specify): small local suppliers.....

Is there a foreign competition? (specify if Yes) YES, a few American firms offers richly equipped filters but rather for water from cities network.....In

what respects the company is superior to the competitors?
simple, natural technology of filtering, easy manual operating,
low cost, especially for ground water net in Poland.....

MARKETING

How the buyers are accessed by the company? advertisements in news papers, exhibitions, other user's advice.

How the buyers are to be accessed by the company in future?
by TV advertising

INSURANCE

State type, insurance company and value of insurance policy of the company:not insured.....

BALANCE SHEET OF THE COMPANY AS OF 30.09.1992.....

Assets	tho. Zloty	Liabilities	Zloty
Cash in cash office		Liabilities rel. to	
and bank	638,335.....	suppliers	120..
Receivables to come		Short-term loans	350,00
from customers	432,743.....	Long-term loans	260,00
Inventories	554,806.....	Liabilities rel. to	
Machinery and equip.	1,150.....	budget	7,620
Real property	.....	Other liabilities	1,084,351
Vehicles	.....	

Other assets	.178,445	Capital	103,338
.....			
TOTAL ASSETS	1,805,479	TOTAL LIABIL.+ CAPITAL	1,805,479 ...

RECEIVABLE TO COME FROM CUSTOMERS

Debtor	Sum	Since when	Planned repayment date
.....

INVENTORIES

Zloty

Materials and supplies	.....	133,261 ...
Production in progress	.....
Finished products	.....	554,806 ...
.....		
Total	.....	688,067 ...

MACHINERY AND EQUIPMENT

Type	Year of man.	Number of	Current value
air compressor.....	1990.....	.....	2,500 th.zl. ...

VEHICLES

Model	Year of man.	Market value
.....

OTHER ASSETS (specify)

REAL PROPERTY

Location	Area	Purchase date	Market value	Use
.....

SHORT-TERM LOANS (up to one year)

Lender	Sum of loan	Sum pending	Repayment	Interest	Security
ALTAR	260 mln	repayment	date	rate	
Bank PBK	350 mln	530	1993	45%	goods, store

LONG-TERM LOANS (in excess of one year)

Lender	Sum of loan	Sum pending	Repayment	Interest	Security
		repayment	date	rate	
.....

LIABILITIES RELATED TO SUPPLIERS

Supplier	Subject of supply	Sum	Terms of payment
Energosvjaz Moscow	broken contract	1,084 mln	unknown
.....

LIABILITIES RELATED TO BUDGET (describe)

.7,6.mln.zl.monthly.payed.....

OTHER LIABILITIES (describe)

.Altar.(sister.company)..Bank.PBK.....

Does the company have some potential liabilities (e.g. resulting from issued guarantees)? (describe if Yes)

no

ASSUMPTIONS FOR FINANCIAL PROJECTIONS

SCHEDULE OF PROJECT REALIZATION

Realization starting date: 1 december 1992

Stages of project realization (specify scope of work and planned realization date of each individual stage): choice of technology and machinery - 31.12.1992 , purchasing and installation- 31.01.1993.

Project realization completion date: ...30.09.93.....

Date of arrival at full production potential: ...30.12.1993.....

PLANNED SALES (following arrival at full production potential)

Name of product/service	Sale price Monthly	Value of mon'ly sales
water filters	sale volume 150 mln zl/	
wasted water contamin. removers	240 mln	
small filterstations	60 mln	
		TOTAL .. 450 mln zl/ month.

Are there seasonal variations of sales? (describe is YES)
 yes, but not in all asrtments in this same time

 PLANNED COSTS

CONSUMPTION OF MATERIALS AND SUPPLIES

Type of Mat'l/supply	Monthly cons.	Price	Value of monthly cons.
steel constructions			251 mln
parts ans complementary goods			

SALARIES

Employment	Average salary	Monthly cost	Monthly amount of surcharge
			of salaries on salaries
.....6.....	...5.0 mln...	..30.0 mln..	....18.2 mln.....

LEVEL OF MANAGEMENT REMUNERATION:

..2 men x 5.6 mln.....

MONTHLY COST OF TRANSPORT (specify level and way of calculation)

...10.0 mln.....

MONTHLY COST OF POWER, GAS AND WATER (specify level and way of

calculation): ..calculated all together at hire rate.....

MONTHLY COSTS OF ADMINISTRATION AND ADVERTISING (specify level and

way of calculation):15.0 mln zł.....

MONTHLY LEVEL OF REMAINING COSTS (specify types and way of

calculation):30.0 mln zł.....

TAXES PAID BY THE COMPANY (specify types of taxes and way of their calculation):income tax..40% of income.....
.....commercial tax 1%
.....

DOES THE COMPANY BENEFITS FROM TAX ALLOWANCES (describe if YES)
.....NO
.....

US DOLLAR EXCHANGE RATE ASSUMED FOR CALCULATION OF LOAN REPAYMENT:
US\$1 = ..17,000..... Zloty

ZESTAWIENIE DOCHODÓW I KOSZTÓW

PROGNOZA

	9 miesięcy b.r.	% sprzedaży	Plan do końca b.r.	% sprzedaży
Przychody (A)	<u>1.033 739</u>	<u>100%</u>	<u>1.318 739</u>	<u>100%</u>
prasy	430 592	41,6	401 806	30,5
rowce	286 261	27,7	285 261	21,6
opłaty kierownictwa	85 532	8,3	101 732	7,7
zostałe płace	133 144	12,9	158 627	12,0
oprzątki na płace	100 118	9,7	119 868	9,1
inne	48 120	4,6	63 600	4,8
koszty usług	15 300	1,5	20 000	1,5
koszty napraw	-	-	-	-
koszty transportu	14 324	1,3	60 000	4,5
koszty telekomunikacji	27 661	2,7	36 882	2,8
opłaty służbowe	3 015	0,3	4 500	0,3
koszty energii, gazu i wody	-	-	-	-
koszty administracji	18 984	1,8	23 000	1,7
koszty reklamy	25 165	2,4	30 000	2,3
bezpieczenia	-	-	-	-
opłaty inne niż dochodowy	-	-	-	-
amortyzacja	200	0,02	210	0,02
zostałe koszty	169 332	16,4	175 000	13,3
koszty działalności	<u>1.388 458</u>	<u>134,3</u>	<u>1.480 516</u>	<u>112,3</u>
przychody końcowe	<u>401 806</u>	<u>38,9</u>	<u>351 806</u>	<u>26,7</u>
Produkcja (B)	<u>986 652</u>	<u>95,4</u>	<u>1.128 740</u>	<u>85,6</u>
Netto (A-B)	<u>17,087</u>	<u>1,6</u>	<u>189 999</u>	<u>14,4</u>
z pożyczki PAFB	-	-	-	-
z innych kredytów	14 583	1,4	60 000	4,5
inne finansowe	14 700	1,4	120 000	9,1
przed podatkiem	<u>17 457</u>	<u>1,7</u>	<u>9 999</u>	<u>0,7</u>
dochodowy	<u>6 983</u>	<u>0,7</u>	<u>3 499</u>	<u>0,3</u>
do	<u>10 474</u>	<u>1,0</u>	<u>6 000</u>	<u>0,4</u>

	Rok 1	% sprzedaży	Rok 2	% sprzedaży	Rok 3	% sprzedaży
	<u>4325 000</u>	<u>100%</u>	<u>4950 000</u>	<u>100%</u>	<u>5.100 000</u>	<u>100%</u>
1.	396 806	9,2	400 000	8,1	400 000	7,8
2.	165 000	3,8	2 640 000	53,3	2.640 000	51,8
3.	134 000	3,1	144 000	2,9	144 000	2,8
4.	226 000	5,2	300 000	6,1	180 000	3,5
5.	217 850	5,0	266 400	5,4	194 100	3,8
6.	254 000	5,9	264 000	5,3	280 000	5,5
7.	55 000	1,3	66 000	1,3	68 000	1,3
8.	20 000	0,5	30 000	0,6	32 000	0,6
9.	140 000	3,2	168 000	3,4	176 000	3,4
10.	47 750	1,1	54 000	1,1	56 000	1,1
11.	10 500	0,2	18 000	0,4	20 000	0,4
12.	-	-	-	-	-	-
13.	34 500	0,8	42 000	0,8	44 000	0,9
14.	98 000	2,3	120 000	2,4	120 000	2,4
15.	-	-	-	-	-	-
16.	10 000	0,2	80 000	1,6	80 000	1,6
17.	500	0,01	500	0,01	500	0,01
18.	34 500	0,8	42 000	0,8	44 000	0,9
3 874 406	89,6	4 634 900	93,6	4 448 900	87,2	
400 000	9,2	400 000	8,1	400 000	7,8	
3 474 406	80,4	4 234 900	85,5	4 048 900	80,0	
850 594	19,7	715 100	14,4	1021 100	20,0	
108 000	2,5	120 000	2,4	120 000	2,4	
37 000	0,9	-	-	-	-	
240 000	5,5	360 000	7,3	360 000	7,1	
465 294	10,8	2 35 100	4,7	541 100	10,6	
186 238	4,3	94 040	1,9	216 440	4,2	
279 356	6,5	141 060	2,8	324 660	6,4	

**PLANOWANE
ROK**

	m-c 1	m-c 2	m-c 3	m-c 4	m-c 5
Saldo początkowa	1.279.042	823.702	720.362	619.022	650.682
Wzrost za gotówkę	150.000	190.000	190.000	290.000	290.000
Spadek bieżących należności	15.000	15.000	15.000	15.000	15.000
Saldo gotówka (A)	1.414.042	1.028.702	925.362	1.024.022	1.055.682
Kupno surowców	100.000	120.000	120.000	185.000	200.000
Płacone kierownictwu	10.000	10.000	10.000	10.000	10.000
Zostałe płacone	14.200	14.200	14.200	14.200	14.200
Przebieg na płacone	14.890	14.890	14.890	14.890	14.890
Wydatki	10.000	20.000	20.000	20.000	20.000
Koszty usług	4.000	4.000	4.000	4.000	4.000
Koszty napraw	2.000	2.000	2.000	2.000	2.000
Koszty transportu	10.000	10.000	10.000	10.000	10.000
Koszty telekomunikacyjne	3.750	3.750	3.750	3.750	3.750
Opłaty służbowe	500	500	500	500	500
Koszty energii, gazu i wody	-	-	-	-	-
Koszty administracji	2.500	2.500	2.500	2.500	2.500
Koszty reklamy	4.000	4.000	4.000	8.000	8.000
Opłaty ubezpieczenia	-	-	-	-	-
Opłaty łączności	2.000	2.000	2.000	2.000	2.000
Zostałe koszty	2.500	2.500	2.500	2.500	2.500
Opłaty od pożyczki PAFP	9.000	9.000	9.000	9.000	9.000
Opłaty od innych kredytów	11.000	9.000	7.000	5.000	3.500
Opłaty koszty finansowe	15.000	15.000	15.000	15.000	20.000
Koszty (B)	225.340	243.340	241.340	308.340	326.840
Saldo brutto (A-B)	1.218.702	785.362	684.022	715.682	728.842
Wydatki inwestycyjne	350.000	20.000	20.000	20.000	20.000
Opłaty dywidenda	-	-	-	-	-
Saldo netto	868.702	765.362	664.022	695.682	708.842
Opłaty pożyczki PAFP	-	-	-	-	-
Opłaty innych pożyczek	110.000	110.000	110.000	110.000	110.000
Saldo końcowa	823.702	720.362	619.022	650.682	663.842

**PRZEPIĘTYWY GOTÓWKI
PIERWSZY**

	m-c 6	m-c 7	m-c 8	m-c 9	m-c 10	m-c 11	m-c 12
Saldo początkowa	663.842	617.142	516.942	510.742	474.542	446.342	424.142
Wzrost za gotówkę	400.000	400.000	400.000	400.000	400.000	400.000	400.000
Spadek bieżących należności	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Saldo gotówka (A)	1.083.842	1.027.142	966.942	930.742	894.542	866.342	844.142
1. Kupno surowców	200.000	200.000	200.000	200.000	200.000	220.000	220.000
2. Płacone kierownictwu	12.000	12.000	12.000	12.000	12.000	12.000	12.000
3. Zostałe płacone	15.000	15.000	15.000	15.000	15.000	15.000	15.000
4. Przebieg na płacone	16.200	16.200	22.200	22.200	22.200	22.200	22.200
5. Wydatki	22.000	22.000	22.000	22.000	22.000	22.000	22.000
6. Koszty usług	5.000	5.000	5.000	5.000	5.000	5.500	5.500
7. Koszty napraw	2.000	2.000	2.000	2.000	2.000	2.500	2.500
8. Koszty transportu	12.000	12.000	12.000	12.000	14.000	14.000	14.000
9. Koszty telekomunikacyjne	4.000	4.000	4.000	4.000	4.000	4.500	4.500
10. Opłaty służbowe	1.000	1.000	1.000	1.000	1.000	1.500	1.500
11. Koszty energii, gazu i wody	-	-	-	-	-	-	-
12. Koszty administracji	3.000	3.000	3.000	3.000	3.000	3.500	3.500
13. Koszty reklamy	10.000	10.000	10.000	10.000	10.000	10.000	10.000
14. Opłaty ubezpieczenia	-	-	-	-	-	-	-
15. Opłaty łączności	4.000	4.000	4.000	4.000	4.000	5.000	5.000
16. Zostałe koszty	3.000	3.000	3.000	3.000	3.000	3.500	3.500
17. Opłaty od pożyczki PAFP	9.000	9.000	9.000	9.000	9.000	9.000	9.000
18. Opłaty od innych kredytów	1.500	-	-	-	-	-	-
19. Opłaty koszty finansowe	20.000	20.000	20.000	20.000	20.000	30.000	30.000
Koszty (B)	349.700	348.200	364.200	364.200	356.200	340.200	330.200
Saldo brutto (A-B)	734.142	688.942	602.742	566.542	538.342	476.142	453.942
Wydatki inwestycyjne	50.000	50.000	-	-	-	-	-
Opłaty dywidenda	-	-	-	-	-	-	-
Saldo netto	684.142	638.942	602.742	566.542	538.342	476.142	453.942
Opłaty pożyczki PAFP	32.000	32.000	32.000	32.000	32.000	32.000	32.000
Opłaty innych pożyczek	35.000	60.000	60.000	60.000	60.000	20.000	-
Saldo końcowa	617.142	546.942	510.742	474.542	446.342	424.142	421.942

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PLANOWANE
ROK DRUGI

	kwartał I	kwartał II	kwartał III	kwartał IV
stan początkowa	121 942	217 342	172 742	98 142
daż za gotówkę	1 200 000	1 200 000	1 200 000	1 350 000
y bieżących należności				
gotówka (A)	1 621 942	1 447 342	1 372 742	1 448 142
ropy surowców	660 000	660 000	660 000	660 000
ce kierownictwa	36 000	36 000	36 000	36 000
ostałe płace	45 000	45 000	45 000	45 000
zuty na płace	66 600	66 600	66 600	66 600
nsze	66 000	66 000	66 000	66 000
zty usług	16 500	16 500	16 500	16 500
zty napraw	7 500	7 500	7 500	7 500
zty transportu	42 000	42 000	42 500	42 500
zty telekomunikacyjne	13 500	13 500	13 500	13 500
różne służbowe	4 500	4 500	4 500	4 500
zty energii, gazu i wody	-	-	-	-
zty administracji	10 500	10 500	10 500	10 500
zty reklamy	30 000	30 000	30 000	30 000
zpieczenia	-	-	-	-
atki łącznie	20 000	20 000	20 000	20 000
ostałe koszty	10 500	10 500	10 500	10 500
etki od pożyczki PAFP	30 000	30 000	30 000	30 000
etki od innych kredytów	-	-	-	-
koszty finansowe	90 000	90 000	90 000	90 000
koszty (B)	1 178 600	1 178 600	1 178 600	1 178 600
brutto (A-B)	443 342	268 742	194 142	269 542
kowe inwestycje	100 000	-	-	-
enda				
netto	343 342	268 742	194 142	269 542
pożyczki PAFP	96 000	96 000	96 000	96 000
innych pożyczek				
końcowa	247 342	172 742	98 142	173 542

PRZEPIŁYWY GOTÓWKI
ROK TRZECI

	kwartał I	kwartał II	kwartał III	kwartał IV
	173 542	37 942	2 342	66 742
	1 200 000	1 200 000	1 300 000	1 400 000
	1 373 542	1 437 942	1 302 342	1 466 742
1.	660 000	660 000	660 000	660 000
2.	36 000	36 000	36 000	36 000
3.	45 000	45 000	45 000	45 000
4.	48 600	48 600	48 600	48 600
5.	40 000	40 000	40 000	40 000
6.	17 000	17 000	17 000	17 000
7.	8 000	8 000	8 000	8 000
8.	44 000	44 000	44 000	44 000
9.	14 000	14 000	14 000	14 000
10.	5 000	5 000	5 000	5 000
11.	-	-	-	-
12.	11 000	11 000	11 000	11 000
13.	30 000	30 000	30 000	30 000
14.	-	-	-	-
15.	20 000	20 000	20 000	20 000
16.	11 000	11 000	11 000	11 000
17.	30 000	30 000	30 000	30 000
18.	-	-	-	-
19.	90 000	90 000	90 000	90 000
	1 173 600	1 178 600	1 178 600	1 178 600
	233 942	98 342	162 742	327 142
	100 000	-	-	-
	133 942	98 342	162 742	327 142
	96 000	96 000	96 000	96 000
	37 942	2 342	66 742	231 142

USZ K SZ

TEL No.36-1-224065

Jun.12.92 14:43 P.01

RD- 

KFT.



Dear Mr. Kenneth J. Macek !

Enclosed please find the list of 102 privat environmental companies You asked for.

At first I've selected the companies, who we can find in environmental publications. I've made the translating and copying of Your letter.

I hope, that you shortly will arrive in Hungary, and You will find time for talking about our further cooperation.

If this better convenient to You, I'm willing to translate the hungarian answers into English free of charge.

Yours sincerely:

Zsuzsanna Pirkner
Zsuzsanna Pirkner

125

- | | | |
|-----|---|--|
| 1. | AET Szigetelő és Szolgáltató Kft. | 1116 Budapest
Kalotaszeg u. 6. |
| 2. | AKKA Kereskedelmi Kft. | 1027 Budapest
Vidra u. 4. |
| 3. | AKTIV Korrózióvédelmi Berendezéseket Építő és Karbantartó BT. | 2475 Kápolnásnyék
Fő u. 49/25. |
| 4. | ALFA Műanyag, Vegyi és Divatcikkipari Kft. | 3100 Salgótarján
Fürst S. u. 3. |
| 5. | ALISCA PATENT Szellemteremk Hasznosító Kft. | 7100 Szekszárd
Beloianisz u. 1-3. |
| 6. | ALKOTÓ Műszaki Fejlesztő és Kereskedelmi RT. | 1052 Budapest
Régiposta u. 19. |
| 7. | AMBÍCIÓ Vegyi és Környezetvédelmi GMK. | 1134 Budapest
Kassák L. u. 77. |
| 8. | AQARIUS Kft. | 1148 Budapest
Nagy Lajos király útja 1-9. |
| 9. | AQUATEAM Műszaki-Kereskedelmi Kft. | 1118 Budapest
Ménesi út 74. |
| 10. | AQUATECH PRODUCT Környezetvédelmi és Műszaki Fejlesztő Kft. | 1365 Budapest
Postafiók: 699. |
| 11. | AQUIFER Kft. | 1039 Budapest
Bebő K. u. 4. |
| 12. | ARTEMIS BT. | 1024 Budapest
Keleti K. u. 9. |
| 13. | ATLAS Tervező és Szolgáltató Kiszövetkezet | 1111 Budapest
Egry J. u. 38. |
| 14. | ÁTRIUM Építőipari Kft. | 1116 Budapest
Kalotaszeg u. 6. |
| 15. | AUTOTRIB Kft. | 1115 Budapest
Csóka u. 7-13. |

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| 16. Bánhida Mérnöki Kft. | 2800 Tatabánya
Mártírok u. 81/b. |
| 17. Békás Mezői Környezet- és Természet-
védelmi Kft. | 5600 Békáscsaba
Szabadság tér 11-17. |
| 18. BIO-CONCEPTS Kft. | 6723 Szeged
József Attila út 118. |
| 19. BIOFER Veszélcshulladék Feldolgozó és
Ipari Szolgáltató Kft. | 4400 Nyíregyháza
Stadion u. 5. |
| 20. BIKÖR Technológiai és Környezetvédelmi Kft. | 1116 Budapest
Építész u. 40-44. |
| 21. BIOVIN Kft. | 8638 Balatonlelle
Lengyeltóti u. 51. |
| 22. BRITECH Környezettechnikai Kereskedelmi és
Szolgáltató Kft. | |
| 23. BVM-Épelem Előregyártó és Szolgáltató Kft. | 1117 Budapest
Budafoki út 215. |
| | |
| 24. CANALTEST Csatornavizsgáló Kft. | 1093 Budapest
Központ u. 10. |
| 25. CEMENT- és Mészipari RT. | 3340 Béalapátfalva
Lenin út 1. |
| 26. CEMKUT Cementkémiai és Cementipari
Kutató Fejlesztő Minősítő és Gyártó Kft. | 1034 Budapest
Bécsi út 122-124. |
| 27. CENTRISZERV Ipari és Laboratóriumi Centri-
fugák Üzemeltetését Elősegítő GMK | 1181 Budapest
Barcsay u. 7. |
| 28. CHEMITECH Kémiai-Technológiai GMK | 2330 Dunaharaszti
Lenin út 4. |
| 29. COMMUNITAS Környezetgazdálkodási Egyesülés | 1073 Budapest
Akácfa u. 47. |
| 30. CHEMITECH Kémiai Technológiai GMK | 1124 Budapest
Lékai tér 19. |
| 31. COMMENVIRON Kft. | 4022 Debrecen
Epreskert u. 1. |
| 32. CORAX Környezetvédelmi Közös Vállalat | 1142 Budapest
Kassai tér 34. |

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| 33. DATAQUA Elektronikai Kft. | 8220 Balatonalmádi
Apáczai Csere J. u. 3.
3531 Miskolc
Győri Kapu u. 24.
3300 Eger
Bajcsy Zsilinszky u. 9. |
| 34. DIMED Műszertechnika Kft. | |
| 35. DIMENZIÓ Mérnöki Képzőintézet | 1015 Budapest
Ostrom u. 23-25.
1087 Budapest
Kerepesi út 17.
1095 Budapest
Kvassay J. u. 1.
1143 Budapest
Gizella út 24-26.
1074 Budapest
Csengery u. 11.
6090 Kunszentmiklós
Hajnal u. 12.
1143 Budapest
Gizella u. 24-26.
7624 Pécs
Zója u. 5/a.
1117 Budapest
Bogdánfy út 4.
6721 Szeged
Szt. István krt. 12-13. |
| 36. EGI-NOVA Energetikai Fejlesztő-, Tervező és Vállalkozó Kft. | |
| 37. EINKOM Energiagazdálkodási Információs, Környezetvédelmi és Méréstechnikai Kft. | |
| 38. ENVIMARK Környezet- és Vízgazdálkodási Piacszervezési és Informatikai Kft. | |
| 39. ENVIRON Környezetvédelmi és Hulladékfeldolgozó Kft. | |
| 40. ERFATERV Erdészeti, Faipari Mérnöki Iroda Kft. | |
| 41. ETALON Ipari és Kereskedelmi BT. | |
| 42. ENVIRON Nyomdai és Környezetvédelmi GT. | |
| 43. FERRIT Filter GMK | |
| 44. Földgép - Rumpold Netta Kft. | |
| 45. FÉMSZELEKT Képzőintézet | |
| 46. GEOHIDRO Geotechnikai Kft. | 1148 Budapest
Nagy Lajos király útja 1-9.
2363 Felsőpakony |
| 47. GÉPSZEV RT. | |
| 48. GLOBUS-SYNCRONIC Környezet- és Munkavédelmi Kft. | 1135 Budapest
Mór u. 2-4.
1051 Budapest
Nádor u. 36.
1139 Budapest
Petneházy u. 58-60.
5600 Békéscsaba
Szató P. tér 7.
5350 Tiszafüred
Somogyi B. u. 54 |
| 49. GREENTECH Hulladékgazdálkodási és Ipari Mérnökszolgáltató Kft. | |
| 50. Gyémánt Ipari és Szolgáltató Képzőintézet | |
| 51. GYOPÁROS Környezetvédelmi Munkaközösség | |
| 52. GÉPSZÖV Gépipari Képzőintézet | |

53. HIDROCOMPLEX Kft. 1148 Budapest
Nagy Lajos király útja 1-9.
54. HIDROPLASZTIK Kft. 8800 Nagykanizsa
Béke út 113.
55. Humán-Szervíz Kutató és Munkakörnyezet-
fejlesztő Kiszövetkezet 1118 Budapest
Torbágy u. 17.
56. HYDROCHEM Kft. 114 Budapest
Francia u. 43.
57. HYDROCOR Kft. 1142 Budapest
Kassai tér 34.
58. HYDROFERR Ipari Kft. 6600 Szentés
Berekhát u. 11.
59. INNO Ipari, Környezetvédelmi Szolgáltató GM 1092 Budapest
Ráday u. 47.
60. INNOMONTAGE Vállalkozó Kft. 1116 Budapest
Soproni u. 64.
61. INNOTRADE-ENVIRO Kft. 1141 Budapest
Mogyoródi u. 108.
62. INTERMEDIER Környezetvédelmi és Vegyipari GMK 1054 Budapest
Alkotmány u. 31.
63. INNOTERV - Ipari Fővállalkozó Kiszövetkezet 5005 Szolnok
Környezetvédelmi és Fejlesztési Iroda -
INNOFLEX Kun B. u. 7.
1108 Budapest
Maglódi u. 36.
64. KATALIN NOHSE Kft. 1174 Budapest
Bél M. u. 12.
65. KBFI-TRIÁSZ Kft. 1037 Budapest
Makoviny S. u. 2-4.
66. KEMIKONTROLL Kft. 1221 Budapest
Honfoglalás u. 14.
67. KEVITERV Vízügyi, Környezetvédelmi és
Vállalkozási Mérnöki Kft. 3300 Eger
Lenin út 142/c.
68. KEVITERV PLUSZ Komplex Vállalkozási Kft. 3527 Miskolc
Katalin u. 1.
69. Környezettechnika Műszaki és Szolgáltató Kft. 1026 Budapest
Torockó u. 6/b.
70. KÖRTE Környezettechnika Kft. 2330 Dunaharaszti
Lenin u. 4.
71. KÖ-TECH Környezettechnikai Szolgáltató Kft. 1371 Budapest
Postafiók: 433.
72. KUBATURA Kiszövetkezet 1145 Budapest
Thököly u. 120.

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|---|---|
| 74. MECHATRONIKA Elektronikus Műszereket
Tervező Készítő és Javító GMK | 1133 Budapest
Kárpát u. 42. |
| 75. MEGAMORV Kazánfejlesztő és Kutató Kft. | 3214 Nagyréde
Kossuth u. 4. |
| 76. METAKTA Egyedi Szerkezetgyártó Kft. | Taktaharkány
Gépállomás u. 6. |
| 77. METEFÉM Műszerkészítő Kiszövetkezet | 1047 Budapest
Tinódi u. 28-30. |
| 78. NOVOFER-PATIN Kft. | 1086 Budapest
Koltői Anna u. 5-7. |
| 79. NYÍRFA Környezetvédelmi és Ipari
Szolgáltató Kiszövetkezet | 1075 Budapest
Holló u. 11. |
| 80. NATURA Környezetvédelmi Tervező
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| 81. ÖKO Környezeti, Gazdasági, Kereskedelmi
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80-244 Gdansk

Agencja Rozwoju Przemysłu S.A.

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00-926 Warszawa

**CONTACT REPORT P062992
Mr. Marian Malecki**

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DECEMBER, 1992 - PAGE 2**

Mr. Edward Dzidek
AGROPLANTA - Zakład
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CONTACT REPORT P061592
FAX\062492

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02-929 Warszawa

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for wastewater purify.

ALPHA MEDIC Sp.z o.o.
ul. Orzycka 20
02-695 Warszawa

Program of protection the
life and health.

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APAG sp.z o.o.
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**POLISH ENVIRONMENTAL FIRMS
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**AQUA - Przedsiębiorstwo
Projektowo-Wdrozeniowe
Gospodarki Wodno-Sciekowej
ul. Blekitna 11
10-137 Olsztyn**

**CONTACT REPORT PO62592A
Mr. Marek Bonkowski**

**AQUQCOMP sp.z o.o.
ul. Wolności 7/9
01-018 Warszawa
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fax 388-357**

**AQUATECH
Przedsiębiorstwo
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Czarny Dwor 2/4
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CONTACT REPORT P082092
Mr. Wladyslaw Strozyk

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ul. Widnichowska 21/13
07-300 Ostrow Mazowiecki
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DECEMBER, 1992 - PAGE 7**

BIOPURE Sp. z.o.o
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52-151 Wroclaw

CONTACT REPORT P052092
Mrs. Irena Langowska

BIOTEX Rp.z o.o.
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Wdrozeniowo-Produkcyjne
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Water conditioning, sewage
purification vitX sludge
treatment, solid recultYv.
dumping grnund and waste
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BIOTECHNIKA Sp.z o.o.
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ul.Konstytucji 11
44-100 Gliwice

Gas desulfurization

**POLISH ENVIRONMENTAL FIRMS
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**BIPROWOD - Biuro Projektow
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**CONTACT REPORT P061192
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Mr. Jystof Czarnecki
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desulfurization and
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fax 312-922

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industrial water,
biological wastewater
treatment.

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Centralne Laboratorium
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tel/fax 250-885

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desulfurization.

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ul. Rydygiera 8
01-793 Warszawa
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DECEMBER, 1992 - PAGE 12**

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**CHLOREX sp.z o.o.
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tel. (061) 480-299
fax 480-321**

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Przedstawicielstwo w Polsce
ul. Graniczna 16**

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40-017 Katowice
tel./fax (032) 155-4404

COMERG S.C.
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61-211 Poznan
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66-300 Miedzyszcz Wlkp.

CONTACT REPORT P070792
Mr.Boleslaw Onyszcz

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86-300 Grudziadz
tel. 229-55

DELTA SERVICE
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fax 610-5125

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tel. 121-857,152-659

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ul.Francuska 70
40-085 Katowice

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fax 851-178

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ul. Lubieszowska 6
00-308 Warszawa

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01-747 Warszawa
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44-100 Gliwice

CONTACT REPORT P062292
Mr. Michał Kulicki

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93-193 Łódź
tel. 845-610, 846-271
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EBRO
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16-400 Suwałki

CONTACT REPORT P060992
Mr. Romuald Turczynski

ECOENERGIA sp.z o.o.
ul. Chmielna 89
00-805 Warszawa
tel. 203-011 w.263,264
tel/fax 205-124

second contact:
ul. Panska 73
00-834 W-wa
tel. 205-124, centr. 203-031

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**ECON - Przedsiębiorstwo
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60-953 Poznan
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tel/fax 673-341**

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**CONTACT REPORT #PO60592
Mr. Eugeniusz Kroppe**

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Przedsiębiorstwo Produkcyjno-
-Handlowo Usługowe
ul.Lawska 2
07-412 Ostroleka**

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wastewater purifications
type EKOBLOK.**

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Budownictwa Ekologicznego
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88-100 Inowroclaw**

**Reservoirs for water
retention and reservoirs
for wastewater
purifications.**

**POLISH ENVIRONMENTAL FIRMS
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**EKOBUDEX - Przeds.
Innowacyjno-Wdrozeniowe
ul. Niepodleglosci 739 a
81-840 Sopot**

**Industrial wastewater
purifications.**

**EKOCOMP Sp.z o.o.
Przedstawicielstwo
Ochrony Srodowiska
ul. Kazimierzowska 49/10
02-572 Warszawa**

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83-132 Morzeszczyn
woj. gdanskie
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**EKOENERGIA
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00-805 Warszawa**

Mr.Stanislaw Weglowski

**EKOKRAK - Przeds. Studiow
Projekt. i Wykonawstwa w
Dziedzinie Ochrony Srodowiska
ul. Pilsudskiego 21/6
31-110 Krakow**

Mr. Janusz Mielczarek

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tel.(032) 572-909**

**EKOL Przeds. Uslugowo-Handlowe
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80-391 Gdansk
tel.(058) 531-191, 572-259**

**EKOLAND - Stowarzyszenie
Producentow Zywnosci
Metodami Ekologicznymi
87-123 Pedzewo
Przysiek k/Torunia
tel. 856-78/19/15 (Torun)**

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**EKOLOG - Przedsiębiorstwo
Projektowo-Inżynieryjne
Al. Wojska Polskiego 43
64-920 Pila**

**Production, installation
of wastewater purification**

**EKOLOG
ul. Pieskowa 61
72-010 Police**

Mr. Henryk Dominiak

**EKOLOGIUM
ul. P. Sciegiennego 1/13
70-352 Szczecin**

**EKOLOT S.C.
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40-159 Katowice
tel. (032) 599-117**

**EKOMONT
Przedsiębiorstwo
Budowlano-Handlowe
ul. Kamienna 19
42-500 Bedzin**

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cleaning and ventilation
of air, small wastewater
municipal purifications.**

**Ekonstal Sp. z o.o.
ul. XXX-lecia PRL 3
88-230 Piotrkow Kujawski**

**CONTACT REPORT P060292
Mr. Krzysztof Elmanowski**

**EKOPOL - Biuro Studiow,
Projektow i Usług
Ekologiczno-Inżynieryjskich
ul. Sliczna 34
31-444 Krakow**

**EKOPOL
Przedsiębiorstwo
Wielobranzowe
ul. Fordonska 10
85-739 Bydgoszcz**

**CONTACT REPORT P060892
Mr. Janusz Modzelewski
FAX\062692**

**POLISH ENVIRONMENTAL FIRMS
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Ekopol Gornoslaski
ul.Opolska 19
41-507 Chorzow

Automatic systems of oil heating.

EKOPOLIN - Przedsiębiorstwo
Badawczo-Wdrozeniowe
Ochrony Środowiska
ul.Krowia 3/4
50-149 Wrocław

Expertises of harmful effect of industry on to environment. Analyses of toxic substances (gas, dust wastewater, solid waste).

EKOPROGRESS Sp.z o.o.
Ekologiczne Przedsiębiorstwo
Usługowo-Handlowe
ul.Gliwicka 30 b
40-853 Katowice

second contact:
Zbigniew Fidrych
ul. Piekna 15
40-591 Katowice
tel.512-946

EKORAN Sp.z o.o.
Przedsiębiorstwo Ochrony
Środowiska
ul.Bkp. Bednorza 2a-6
40-384 Katowice

CONTACT REPORT P061592
Mr. Janusz Szlachetko

EKOS - Zakład
Badawczo-Usługowy
ul.Mrozna 35
40-318 Katowice

Monitoring, designing of green areas.

EKOSILA Przedsiębiorstwo
Projektowo-Produkcyjno-Handlowe
ul. Jaworowa 153
05-090 Warszawa-Raszyn
tel. 633-8646, 633-9511 w.2886
fax 352-255

EKOSYSTEM sp. z o.o.
Pl. Piastowski 3
85-012 Bydgoszcz

Mr. Roszkowski

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EKOSYSTEM sp.z o.o.
ul. Glowackiego 9
65-301 Zielona Gora
tel/fax 224-31

EKOSYSTEM UNI SCIENCE
Przedsiębiorstwo
Badawczo-Wdrozeniowe
ul. Trybunalska 4
20-113 Lublin

EKOTEST Sp.z o.o.
Przedsiębiorstwo Innowacyjne
ul. Gen. Hallera 23
87-102 Torun

Complex treatment of
furnace gases, particulate
desulfurization. Waste
utilization.

EKOTEST INTERNATIONAL Ltd.
ul. Dobiszewskiego 5 m 2
01-404 Warszawa
tel/fax 377-043

ELAM sp.z o.o.
ul. Obornicka 66
51-114 Wrocław
tel. (071) 255-021
fax 252-385

ELCO Sp.z o.o.
ul. Gorczyńska 62/64
01-401 Warszawa

CONTACT REPORT P071092
Mr. Jerzy Gorski

ELEKTRA
Spółdzielnia Pracy
ul. Waska 8
81-625 Gdynia

Magnetizers.

ELEKTRIM S.A.
Polskie Towarzystwo
Handlu Zagranicznego
ul. Chalubinskiego 8
00-950 Warszawa

Desulfurization and
denitrification of fumes,
removal mechanical
pollutions. Water
protection.

**POLISH ENVIRONMENTAL FIRMS
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ELEKTROMONTAZ EKSPORT
ul.Ogrodowa 28/30
00-896 Warszawa

**ELEO - Zaklady Produkcji
Urządzeń Mechanicznych**
ul.Lubelska 44
43-200 Pszczyna

Flue gas desulfurization
and denitrification
equipment.

**ELEWATOR - Zaklady
Urządzeń Technicznych**
ul.1-go Maja
40-225 Katowice

**ELMET - Przedsiębiorstwo
Handlowo-Uslugowe Sp.z o.o.**
ul.Krucza 16/22
00-526 Warszawa

Water-gas boilers for
heating.

**ELMET - Przedsiębiorstwo
Handlu Artykulami Technicznymi**
ul.Kazimierza Wlk. 31/33
50-951 Wrocław

Producer of biological
wastewater purifications.

ELJAK-ELEKTRONICS
Firma Elektroniczna
ul.Powstancow Slaskich 6a/34
95-100 Zgierz
tel/fax 164-600

Analysers of fumes.
(analizatory spalin).

ELMETRON
ul. Lesna 131
41-807 Zabrze
tel.(032) 715-881
tel/fax 716-556

ELPRO
ul. Filtrowa 1a
00-611 Warszawa
tel. 255-070
fax 257-593

**POLISH ENVIRONMENTAL FIRMS
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ELPROTECH sp.z o.o.
ul. Zmigrodzka 41
60-171 Poznan
tel.(061) 679-382

ELWAG
ul. Krotka 5
64-100 Leszno
tel. 201-294
fax 201-200

ELWO sp. z o.o.
ul. Bielska 44
43-200 Pszczyna
tel.(032) 30.61 to 69
fax 49.39

EMIO Sp.z o.o.
Przedsiębiorstwo
Innowacyjno-Wdrozeniowe
ul.Ofiar Oswiecimskich 17
51-069 Wroclaw

Measurement and control
instruments for the needs
of the environment protec.

EMU-UNTERWASSERPUMEN
Biuro Informacji Technicznej
ul. Jodlowa 11
47-200 Kedzierzyn Kozle

ENEKO Sp.z o.o.
Przedsiębiorstwo Wielobranzowe
ul.Zygmunta Starego 6
44-101 Gliwice

ENEKOL S.A.
ul.Mickiewicza 63
01-625 Warszawa

High-performance
compact reactors.
(biobloki)

ENERGOEXPERT
ul.Sw.Sebastiana 36
31-051 Krakow

Mr.Jerzy Kowalski

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ENERGOMONTAZ - POLNOC
Przeds. Montazu Elektrowni
i Urzadzen Przemyslowych
ul. Przemyslowa 30/32
00-450 Warszawa

Design, manufacturing and
erection of equipment in
industry, energy sector
municipal economy.

ENERGOMONTAZ-POLNOC
ul. Nowy Swiat 9
00-950 Warszawa
tel. 628-2392, 211-374
fax 294-912

ENERGOMONTAZ-Przedsiębiorstwo
ul. Katowicka 47
41-500 Chorzow

CONTACT REPORT P070892
Mr. Marek Wrzesniowski

ENERGOPOL
Contractors and Designers
ul. Nowogrodzka 21
00-950 Warszawa

Wastewater purifications
for industry, towns, hotels
and hospitals.

ENERGOPOL
ul. Sw. Floriana 9/13
70-646 Szczecin
tel. (091) 424-36, 426-31
fax 375-25

ENERGOPOL-Ex
Przedsiębiorstwo Eksportu
Budownictwa
ul. Wojkowicka 14
41-250 Czeladz

Modern environment
technologies.

ENERGOPOMIAR
Zakłady Pomiarowo-
-Badawcze Energetyki
ul. J. Sowinskiego 3
44-101 Gliwice
tel. (032) 376-543

**POLISH ENVIRONMENTAL FIRMS
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**ENERGOPROJEKT - Głównie Biuro
Studiów i Projektów Energet.
Zakład Doswiadczalny
ul. Z. Nałkowskiej 41
60-573 Poznań**

**Automatic control
systems for
pollution's emission.**

**ENERGOTECHNIKA sp.z o.o.
ul. Szpitalna 8
44-190 Knurow**

**ENKO S.C.
ul. Przewozowa 32
44-100 Gliwice
tel.(032) 315-075 to 79
fax 319-511**

**ENTER sp.z o.o.
ul. Leborska 9
80-386 Gdańsk
tel.(058) 524-820
fax 525-164**

**ENVICON-POLSKA sp.z o.o.
ul. Reymonta 35
63-400 Ostrow Wlkp.
tel. 662-81 to 5
fax 713-53**

**ENVIROIMPEX Sp.z o.o.
Agencja Handlowa
ul. Kochanowskiego 7
60-900 Poznań**

**ENVIROMATIC Sp.z o.o.
Przedsiębiorstwo Automatyki
i Aparatury Pomiarowej
ul. Kochanowskiego 7
60-900 Poznań**

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ENVIROTECH Sp.z o.o.
Przedsiębiorstwo Wielobranzowe
ul.Kochanowskiego 7
60-900 Poznan

Installations for
level of oxygen
measurement.

ENVIRO-SILESIA GmbH
ul. Wita Stwosza 31
40-042 Katowice
tel.(032) 579-605, 579-668
fax 512-313, 510-127

ENVIROTEX Sp.z o.o.
Przedsiębiorstwo Usług
Konsultingowych
ul.Zelazna 34/38 m 131
00-832 Warszawa
tel. 206-120

Municipal and industrial
wastewater purify.

ERA sp.z o.o.
ul. Wadowicka 10
P.O. Box 79
30-415 Krakow
tel.668-022 w.183
tel.676-060

ERG - Osrodek Badawczo-Rozwojowy
ul. Mickiewicza 108
38-200 Jaslo

Join venture to
manufacture equipment.

ESSAB sp. z o.o.
Polsko-Szwedzka Firma
ul. Kosciuszki 38
40-048 Katowice
tel.(032) 573-841

EURO-EKOLAS
Przedsiębiorstwo Inżynierii
Ochrony Środowiska
ul. Armii Krajowej 5
41-506 Chorzow
tel./fax 4&1-329

**POLISH ENVIRONMENTAL FIRMS
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EUROCOLOR
ul. Tylna 3
P.O.Box 46
90-980 Lodz 7
tel.(042) 813-140
fax 844-609

EUROPA Corporation
ul.Napoleona 2
05-230 Kobylka k/W-wy

CONTACT REPORT P061692
Mr.Przemyslaw Lasocki

EUROSILVER Zaklady
Przetworstwa z Metali
Szlachetnych
ul. Toszecka 99
44-101 Gliwice
tel.319-261,310-657
fax 315-208

EUROTRAN
wastewater purify.
81-314 Gdynia

Installations for ul.Pomorska 18

EWA COMPANY
ul. Izbicka 57
04-822 Warszawa
tel.628-0345
fax 290-069

EXBUD S.A. CENTRUM BIZNESU
ul. Manifestu Lipcowego 34
25-323 Kielce

CONTACT REPORT #P060192
FAX 0604B, FAX 0708B

Gliwickie Zaklady
Urzadzen Elektronicznych
ul. Przewozowa 32
44-100 Gliwice
tel.(023) 316-051 to 54

**POLISH ENVIRONMENTAL FIRMS
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Fabryka Armatur
Przeds. Panstwowe
ul. Armii Czerwonej 8
62-020 Swarzedz

Fittings (armatura).

Fabryka Urzadzen
Wentylacyjno-Klimatyzacyjnych
ul. Wojska Polskiego 6
87-600 Lipno

Fans.

FAKOP - Fabryka
Kotlow Przemyslowych
ul. Pstrowskiego 4
41-200 Sosnowiec

Industrial boilers.

FAMET S.A.
Fabryka Aparatury i Urzdzien
skr.poczt.313
47-225 Kedzierzyn Kozle

FAWENT
Fabryka Wentylatorow
ul. Technikow 22
43-146 Myslowice-Chelm Sl.

CONAVT REPORT P070292
Mr.Zdzislaw Porwit

FIN SKOG LTD. MARKET GROUP
ul.Jaskowa Dolina 59
80-286 Gdansk
tel/fax (058) 476-771

FINPOL ROHR Ltd.
ul. Batorego 2
02-591 Warszawa
tel. 253-305
fax 253-844

FLUID CORPORATION sp.z o.o.
Przy Rondzie 6
31-547 Krakow
tel. 120-743
tel/fax 219-561

**POLISH ENVIRONMENTAL FIRMS
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Fabryka Armatur
Przeds. Panstwowe
ul. Armii Czerwonej 8
62-020 Swarzedz

Fittings (armatura).

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ul. Wojska Polskiego 6
87-600 Lipno

Fans.

FAKOP - Fabryka
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ul. Pstrowskiego 4
41-200 Sosnowiec

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47-225 Kedzierzyn Kozle

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Przy Rondzie 6
31-547 Krakow
tel. 120-743
tel/fax 219-561

**POLISH ENVIRONMENTAL FIRMS
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FORVEST sp.z o.o.
ul. Kniewskiego 3d-8
75-445 Koszalin
tel/fax (094) 434-987

**FUGO - Fabryka Urzadzen
Gornictwa Odkrywkowego**
ul. Przemyslowa 85
62-510 Konin

In cooperation with forein
capital starting of
various activities in
environment protection.

FUNAM sp.z o.o.
ul. Skibowa 51
52-230 Wroclaw
tel.687-608
fax 677-618

GAIA
ul.Opolska 33/240
31-276 Krakow

CONTACT REPORT P090192
Mr. Daniel Danilewski

GAS-ELECTRONIC
ul. Jarochofskiego 58
60-249 Poznan
tel.661-814

GEA Sp.z o.o.
Technika Energetyczna
i Ochrony Srodowiska
ul.J.Lompy 14
40-955 Katowice

GEA CONSULTING sp.z o.o.
ul. Sw. Marcin 40, pok.907
Poznan
tel.(061) 664-451 w.267

GEOBIOTECHNIKA Sp.z o.o.
Biuro Kształcenia Srodowiska
ul.Konarskiego 3
43-300 Bielsko-Biala

**POLISH ENVIRONMENTAL FIRMS
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GEOS LTD.
ul. Wisnowa 18/94
31-423 Krakow

CONTACT REPORT #P060492
Mr. Marek Razowski

GEOTEX
ul. Bat. Chlopskich 49
70-770 Szczecin
tel. 615-981

GLINIK SA
Fabryka Maszyn
ul. Michalusa 1
38-320 Gorlice

Container wastewater
purifications.

GLIWENT - Fabryka
Urzadzen Wentylacyjnych
ul. Tarnogorska 13
44-100 Gliwice

Gornicze Zaklady Dolomitov. z
ul. Strzelcow Bytomskich 450
42-635 Bytom 20

Dolomit mineral manure.

GREG
ul. Rodzinna 4
44-100 Gliwice
tel. (032) 342-501

GROS-POL Sp.z o.o.
ul. Limanowskiego 7
60-743 Poznan

Water and industrial
boilers, production of
boiler parts.

GROUND-WATER Sp.z o.o.
Przeds. Specjalistyczne
ul. Zwirki i Wigury 1
31-465 Krakow

Control of quality of
underground water.

HIROSS Sp.z o.o.
Oddzial w Warszawie
ul. Aplikancka 7
02-075 Warszawa

Fittings, fans,
air-condition equipment.

**POLISH ENVIRONMENTAL FIRMS
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**HURTOWNIA Preparatow
do Neutralizacji Sciekow
Waldemar Kowalski
Os. Zgody 5/19
31-949 Krakow
tel.(012) 433-644**

**HYDROBUDOWA - 6
ul. Skoczylasa 4
03-469 Warszawa**

Mr. Konstanty Blinski

**HYDROBUDOWA-9-KONSORCJUM
ul. Sienkiewicza 22
60-900 Poznan
tel.(061) 456-21
fax 456-23**

**HYDROBUDOWA SLASK
ul.Francuska 34
40-028 Katowice**

**CONTACT REPORT P072792
Mr. Janusz Sokolowski**

**HYDRO-ECO-INVEST
ul. Bohaterow Getta 9
44-102 Gliwice 2
tel.(032) 316-011, 318-395**

**Mr. Henryk Grala
HYDROMECH - Sp. z o.o.
Al. Wolnosci 18
58-530 Kowary /woj.Jel.Gora**

**HYDROMONT Sp.z o.o.
Przedsiębiorstwo
Produkcyjno-Uslugowe
ul.Staropolska 3
41-800 Zabrze**

**Recultivation of
industrial areas,water
supply installat.,
wastewater purifications.**

**HYDROPROJECT
ul. Dubois 9
00-182 Warszawa**

Mr. Wieslaw Ciesielski

**POLISH ENVIRONMENTAL FIRMS
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ICHP
ul. Zamkowa 1
41-803 Zabrze

IMFITEX
ul. Broniewskiego 15
47-225 Kedzierzyn-Kozle
tel. (0794) 33181

**INCO - Zakład Produkcji
Aparatury Elektronicznej**
ul. Tarnogajska 11/13
Wrocław

**INDUSTRIAL SERVICE
CORPORATION Ltd.**
ul. Konstruktorska 11
02-673 Warszawa
tel. 436-451, 433-492
fax 431-520

INFO-COOP
Spółka Akcyjna
ul. Grabskiego 27a
40-824 Katowice

Importer of modern air-
condition plants.

INFRACORR
ul. Legionow 126
81-472 Gdynia
tel. (058) 223-041
fax 222-934

INKOM Sp.z o.o.
Przedsiębiorstwo
Innowacyjno-Produkcyjne
ul. Dworcowa 30
43-200 Pszczyna

Building constructions,
buildings protection
against noise, groundwater
protection.

**POLISH ENVIRONMENTAL FIRMS
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INMET-HYDRO sp.z o.o.
ul. marynarki Polskiej 59
80-557 Gdansk
tel. (058) 431-529 w.16
fax 315-760

**INOWROCLAWSKIE ZAKLADY
CHEMICZNE**
ul. Fabryczna 4
88-101 Inowroclaw

Mr. Bogusz Jazwierski

**INPRO - Przedsiębiorstwo
Ochrony Środowiska**
ul. Mickiewicza 33
60-538 Poznan

Air pollution.

**INSTAL - Przedsiębiorstwo
Instalacji Przemysłowych**
ul. Heclow 19
31-148 Krakow

**Flue gas cleaning
and recovery of
heat equipment.**

**INSTAL - Przeds.
Instalacji Przemysłowych**
ul. Dworcowa 16
76-004 Sianow

**Installations for
desulfurization and
dedusting of gases,
filters.**

INSTAL POZNAŃ sp.z o.o.
ul. Franciszka Danielaka 2
60-951 Poznan
tel.(061) 327-011
fax 662-551, 665-923

INSTALCOMPAKT sp.z o.o.
ul. Smardzewska 27
60-161 Poznan
tel.(061) 674-423
fax 439-49

INTEKO
ul. Milionowa 2
93-034 Lodz

**CONTACT REPORT P061092
Mr. Ryszard Krzeminski**

**POLISH ENVIRONMENTAL FIRMS
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INTERATOMINSTRUMENT
ul. Energetykow 7
65-729 Zielona Gora
tel. 602-35, tel/fax 660-99

INTEREX
ul. Tucholska 11 m 33
01-618 Warszawa
tel/fax 396-305

INTERFLUID S.A.
ul. Mickiewicza 63
01-625 Warszawa

Water boilers.

INTERMAT
Dymaczewo Nowe 10
62-050 Mosina
tel.(061) 132-104
fax 668-888

INTERMEX
Przedsiębiorstwo
Wdrozen Nowych Technologii
i Instal. Sanit.-Przemysl.
ul. Deszczowa 65
85-467 Bydgoszcz

Container wastewater
purifications.

INTER-PROFI Sp.z o.o.
ul. Czarnomorska 13
02-758 Warszawa

INTER-PROJEKT PPH
ul. Moniuszki 7
40-005 Katowice
tel.(032) 596-803, 598-883
fax 598-763

INTROL
ul. barbary 21a
40-053 Katowice
tel.(032) 515-281
tel/fax 517-786

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INWEST-COMERCE
ul. Sadowa 10
41-200 Sosnowiec

Services in the range of
environment protection.

INVESTOR Ltd.
ul. Brzozowa 13
40-170 Katowice
tel.(032) 584-451 to 3

INZ-EKO
Przedsiębiorstwo
Inżynieryjno-Ekologiczne
ul. Hetmanska 28
82-300 Elbląg
tel./fax 281-42

***INZYNIERIA Sp.z o.o.**
ul. Szaserow 141
04-363 Warszawa

Sewage-treatment plant,
water treatment stations,
water pipe network.

IŃO sp.z o.o.
ul. Waryńskiego 41a
15-460 Białystok
tel.514-145
tel/fax 514-244

ITT FLYGT
02-800 Warszawa-Dawidy
tel. 463-434
fax 560-773

Jaroslaw Kowal
ul. Manifestu Lipcowego 34
25-323 Kielce

Jednostka
Innowacyjno-Wdrozeniowa
Zakład Elektromechaniczny
ul. Bagatela 10
00-585 Warszawa

**POLISH ENVIRONMENTAL FIRMS
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JON sp.z o.o.
Os. Wichrowe Wzgorze 29F
61-698 Poznan
tel.(0610 205-908

KADA
ul. Starolecka 170
Poznan
tel.(061) 793-948

KANRO Ltd.
ul. Mlynowa 21
15-404 Bialystok
tel./fax 213-49

Environment protection
technology: equipment for
conservation, repairing,
diagnostic sanitary installation.

KARTECH
ul. Przemyslowa 30/32
00-450 Warszawa
tel/fax 219-129

KATALIZATOR Sp.z o.o.
ul.Niezapominajek 2
30-239 Krakow

CONTACT REPORT P072892A
Mr. Boguslaw Jacobowski

KARDEX
Przedsiębiorstwo
Zagraniczne w Polsce
ul.Gornicza 38
43-322 Czechowice-Dziedzice

Katowickie Przedsiębiorstwo
Robot Inzynieryjnych
Budownictwa Przemyslowego
ul.Francuska 34
40-950 Katowice

Installations for
dedusting gasses,fans,
equipment for wastewater
purifications.

KLIMA Przedsiębiorstwo
Wielobranzowe
ul. Podlaska 8
60-623 Poznan
tel/fax 436-74
KLIMASERW

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ul. Przebendowskich 49a
81-526 Gdynia-Orlowo
tel.(058) 248-436

KLIMA-TEST Sp.z o.o.
ul.Slupska 1/46
40-716 Katowice

Services in the range of
ventilation and air-
condition equipments.

KLIMATOR - Zaklady Urzadzen
Klimatyzacyjno-Wentylacyjnych
ul.Swierczewskiego 38
58-160 Swiebodzice

KOPIGA sp.z o.o.
ul. Modra 52
54-151 Wroclaw
tel/fax (071) 514-195

KOKSOPROJEKT Sp.z o.o.
Biuro Projektow
ul.Wolnosc 362
41-801 Zabrze

Modern methods of
coal-gas cleaning,
dry extinction of coke
(suche gaszenie koksu).

KOMPOL CO.
ul. Zeylanda 6
60-808 Poznan
tel/fax (061) 650-713

Mr. Wojciech Dudka

KOMPREKO
Przedsiębiorstwo Zagospodarowania
Odpadów Komunalnych i Przemysłowych
ul. Rolna 6
40-556 Katowice
tel.(032) 532-029, 521-041/9 w.266

KOMPROJEKT
ul. Barbary 21
40-053 Katowice
tel.(032) 517-501, fax 515-581
KONSORCJUM WODY

**POLISH ENVIRONMENTAL FIRMS
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ul. Rolna 6
40-556 Katowice
tel.(032) 521-041/9 w.22
523-026
fax 521-081

KOOBUD sp.z o.o.
Przedsiębiorstwo Realizacji
Inwestycji
ul. Erazma Ciolka 12
01-402 Warszawa
tel. 368-047
fax 379-001

KOPEX - Przedsiębiorstwo
Eksportu i Importu
ul.Grabowa 1
40-952 Katowice

Gasses desulfurization
plants,wastewater
purifications.

KOPRODUKT Sp.z o.o.
Leczynsk 48
07-400 Ostroleka

KOPRODUKT
ul.Bartycka 26
00-716 Warszawa

CONTACT REPORT P072092
Mr. Dariusz Bielawski

KOTREM
ul. Krotka 3
42-200 Czestochowa

CONTACT REPORT P0060292B
Mr. Andrzej Tymieniecki

KOWENT - Fabryka Urzadzen
Odpylajacych i Wentylacyjnych
ul. Warszawska 52
26-202 Konskie

CONTACT REPORT P070992
Mr. Zbigniew Sipika

KPIS-CRACOVIA
Przedsiębiorstwo
Instalacji Sanitarnych
ul.Lubicz 27
31-503 Krakow

Installations for sludge
removal.

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Krakowskie Towarzystwo Przemysłu
Biuro Kooperacji Ekonomicznych
ul. Starowislna 13/20
31-038 Krakow

Krakowski Wydział Handlu
i Przemysłu
ul. Długa 1
31-147 Krakow

Krakowski Zakład
Termoenergetyczny
ul. Ciepłownicza 1b
31-038 Krakow

CONTACT REPORT P062292
Mr. Edward Grodzki

KRAJOWE CENTRUM
EDUKACJI EKOLOGICZNEJ
ul. Dubois 9
00-182 Warszawa
tel. 635-6468
fax 635-0020

KREVOX Ltd.
ul. Jelenich Rogow 5
05-540 Zalesie Gorne
tel. (022) 565-220
fax 215-135

KWADRUS sp.z o.o.
ul. Reduta Zbik 5
80-761 Gdansk
tel. (058) 311-021
tel/fax 313-515

LABCONSULT
ul. Parkowa 9/8
00-750 Warszawa
tel/fax 410-345

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LAMINO MET S.C.
ul. Wyszynskiego 48
62-650 Klodawa
tel/fax 30-747 Klodawa
tel/fax 480-700 Torun

LANDEKO sp. z o.o.
ul. Siemianowska 16/18
41-902 Bytom
tel. 817-411
fax 810-304

LENTEX
ul. Powstancow 54
42-701 Lubliniec
tel.(0334) 626-41 to 49
fax 633-20

LOKATA
Przedsiębiorstwo
Produkcyjno-Uslugowe
ul. A. Struga 16
80-116 Gdansk
tel. 329-931
fax 316-761

LABEDY
Zaklady Mechaniczne
ul. Mechnikow 9
44-109 Gliwice

LABIMEX - Spolka
Handlu Zagranicznego
Krakowskie Przedmiescie 79
00-950 Warszawa

LUDMER
Ms. Danuta Ludwiczak
ul. Nowosolska 13
60-171 Poznan
tel.(061)671-775

**POLISH ENVIRONMENTAL FIRMS
DECEMBER, 1992 - PAGE 40**

LODZKIE KONSORCJUM EKOLOGICZNE

ul. Nowa 23
90-031 Lodz
tel.(042) 741-959
tel/fax 746-689

MAGNUM-POLAR
Magnum Trade Investments
ul.Szkolna 13
60-967 Poznan

Water treatment and
filtrating installations.

MAWENT
Fabryka Wentylatorow
ul.Ciepła 6
82-200 Malbork

Fans.

MATZ Sp.z o.o.
ul.Serbska 42
61-696 Poznan

Preparat to clean organic
wastes.

MAX S.C.
Przedsiębiorstwo Handlowe
Export-Import
ul.Limby 7
04-836 Warszawa

CONTACT REPORT P072892
Ms. Lidia Rokicka

MAZUR
TRADING- ENVIRONMENT Ltd.
ul.Rakowiecka 39a/11
02-521 Warszawa

Air and water protection.

MBM Technika Grzewcza
sp.z o.o.
ul. Grodziska 15
05-870 Blonie
tel. 553-737
fax 554-010

**POLISH ENVIRONMENTAL FIRMS
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MECHANIKA PRECYZYJNA
Spoldzielnia Pracy
ul. Boremlowska 16
04-347 Warszawa
tei/fax 298-224

MEDICAT Ltd.
Przedsiębiorstwo
Innowacyjno-Wdrozeniowe
ul. Nowy Swiat 18/20
00-920 Warszawa

MEGADEX
A. Mickiewicza 63
01-625 Warszawa

CONTACT REPORT P060192
Mr. Wiktor Witwicki

MERA Sp.z o.o.
Al. Jerozolimskie 202
02-363 Warszawa

MERA-BLONIE
Zakłady Mechaniczno-Produkcyjne
ul. Beniowskiego 5
80-382 Gdansk

**MERASTER - Centrum Naukowo-
-Produkcyjne Systemow Sterowania**
ul. Korfantego 160
40-153 Katowice

Cooperation in electrical
engineering equipment
manufacture related to
the control of equipment
and systems.

**MERASTER - Centrum
Naukowo-Produkcyjne
Systemow Sterowania**
ul. Roosvelta 120
41-800 Zabrze

CONTACT REPORT P062692A
Mr. Jozef Kozlowski

**MERCOMP - Centrum
Badawczo-Wdrozeniowe**
ul. Nocznickiego 31
01-918 Warszawa

Technical consulting,
control and automatic
systems.

**POLISH ENVIRONMENTAL FIRMS
DECEMBER, 1992 - PAGE 42**

MERTRANS S.C.
ul. Obornicka 103
60-648 Poznan
tel.(061) 484-533
fax 533-020

METALCOOP-HOLDING
ul.Zawiszy Czarnego 17
80-433 Gdansk

Cold storage plants for
technological water and
dedusting cyclons.

**METALCHEM - Zaklady
Aparatury Chemicznej**
ul.Oswiecimska 121
45-643 Opole

Producer of biological
wastewater purifications
type MINIBLOK.

**METALCHEM - Przedsiębiorstwo
Produkcyjne Pomp Chemoodpornych**
ul.Studzienne 7a
00-961 Warszawa

Pumps.

METALCHEM Sp.z o.o.
Przedsiębiorstwo Przemysłowe
ul. Plebiscytowa 1
44-100 Gliwice

Installations for:
wastewater purification,
neutralization of gases,
dust removal,utilization
of solid wastes.

METALEXPORT Sp.z o.
Biuro Importu DK
ul.Mokotowska 49
00-950 Warszawa

Contracts for delivery of
ecological installations

METALKOR
Zaklady Mechaniczno-
Antykorozyjne
ul. Wojska polskiego 65
85-825 Bydgoszcz
tel/fax 610-538

150

**POLISH ENVIRONMENTAL FIRMS
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Metalowa Spoldzielnia Pracy
ul. Gdanska 34
83-300 Kartuzy

**Installations for oil
removal from industrial
wastewaters.**

METANEL SA
ul. Pulawska 18
00-975 Warszawa

CONTACT REPORT #P042192
Mr. Jan Niegowski
C:\LTTRS\POLAND.2

METEX POLAND Ltd.
ul. Humanska 10
00-789 Warszawa
tel. 496-633
fax 498-431

METRON
Fabryka Wodomierzy
i Zegarkow
ul. Targowa 12/22
87-100 Torun
tel. 392-466
fax 398-473

METRONEK Sp.z o.o.
ul. Mysia 2
00-950 Warszawa

*** Miejski Kombinat
Budowlany ZACHOD**
ul. Falecka 10
02-547 Warszawa

Environmental protection.

MINING + EKO
Technik GmbH
ul. RAclawicka 56
30-017 Krakow

MIROMETR
ul. Michejdy 23
43-400 Cieszyn
tel. Katowice 57-87-60
Gliwice 37-45-90
Cieszyn 231-71



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MONTOREM Sp.z o.o.
Przedsiębiorstwo Specjalistyczne
ul. Warszawska 44
25-312 Kielce

Filters for air dedusting,
plants for desulfurization
and dedusting gasses.

***MOSTOSTAL - Przeds.**
Konstrukcji Stalowych
i Urządzeń Przemysłowych
ul. Kosciuszki 100
42-500 Bedzin k/Katowic

Construction of plants for
emission control in
therma-electric power
stations and in boiler
houses.

MOSTOSTAL - Przedsiębiorstwo
Konstrukcji Stalowych i
Urządzeń Przemysłowych
ul. Targowa 12
09-400 Plock

Wastewater purification-
constructions.

MOSTOSTAL - Przeds.
Konstrukcji Stalowych
i Urządzeń Przemysłowych
ul. Wolności 191
41-800 Zabrze

Manufacture and erection
of equipment for the
effluent treatment plants

Mr. Ryszard Ostromecki
ul. Zakroczymska 11/1
00-225 Warszawa

CONTACT REPORT P050692

***MUTECO**
ul. Kosciuszki 112
40-519 Katowice

Places for composts,
municipal cars, sanitation
works.

MWM Trade Sp.z o.o.
Eksport-Import
ul. Ogrodowa 27
62-081 Przemierowo

Mysłowickie Przedsiębiorstwo
Budownictwa Inżynieryjnego
i Przemysłowego
42-207 Częstochowa-Kucelin

**POLISH ENVIRONMENTAL FIRMS
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NCE S.A.
ul. Wilczycka 14
51-311 Wrocław-Kielczów

Dumps of wastes, wastewater
purifications,
water-supply systems.

NEDERPOL sp.z o.o.
ul. Elblaska 66
80-761 Gdansk
tel. 314-251/3
tel.(058) 314-252

NEVEXPOL Ltd.
Polsko-Francuskie Przedsiębiorstwo
Produkcyjno-Handlowe
ul. Sosnowa 43
97-200 Tomaszów Mazowiecki
tel/fax 22-52

**NOMA Sp.z o.o.- Zakład
Kształtowania i Rekultywacji
Terenów Zielonych "JUNIPREX"**
ul. Łaziska 27
43-175 Tychy-Wyry

Recultivation of
industrial areas, design of
green areas.

NOVIS Sp.z o.o.
Przedsiębiorstwo Wielobranżowe
ul. Staromorzyska 8e
62-510 Konin

NOWIMEX
ul. Braci Piłatich 4/51
00-771 Warszawa
tel/fax 417-911

OIKOS
Przedsiębiorstwo Usługowe
ul. P. Gdańca 4/56
80-305 Gdansk
tel.(058) 411-496, 567-831

**POLISH ENVIRONMENTAL FIRMS
DECEMBER, 1992 - PAGE 46**

OMC sp.z o.o.
Biuro Techniczne
ul. Szpitalna 6
00-031 Warszawa
tel. 276-244
fax 275-930

OMEGA
Przedsiębiorstwo Badan i
Projektow Ochrony Srodowiska
ul. Grabowa 2
40-955 Katowice
tel.(032) 592-746, 581-631
fax 581-023

OPAM
ul. Lubuska 23
40-952 Katowice

CONTACT REPORT P062492
Mr. Eugeniusz Cwieczek

OPEX-Przedsiębiorstwo
Rzeczoznawstwa i Ekspertyz
ul.Czarnieckiego 6
80-239 Gdansk

Measurements of emmision,
immision.Tests of water
and wastewater for
contents of heavy metals.

ORGANIKA - Osrodek
Badawczo-Rozwojowy
Przemyslu Barwnikow
ul.Struga 29
95-100 Zgierz

Environment protection.

ORION - Przedsiębiorstwo
Produkcyjno-Handlowe
ul.Zwirki i Wigury 3
42-600 Tarnowskie Gory

Recultivation and
building services.

Osrodek Badan i
Kontroli Srodowiska
Przdsiebiorstwo Panstwowe
ul.Owocowa 8
40-158 Katowice

**POLISH ENVIRONMENTAL FIRMS
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EKOLOGII MIAST
ul. Okopowa 70-106
91-850 Lodz
tel.576-434

Osrodek d/s Wynalazczosci
i Ochrony Patentowej
Politechniki Slaskiej
ul.Krzywoustego 7
44-101 Gliwice

OSRODEK POSTEPU TECHNICZNEGO
ul. Bytkowska 1B
40-955 Katowice
tel.(032) 596-061 to 67
fax 588-919

OUTOKUMPU ECOENERGY
KWK CZECZOT
ul.Pszczynska 2
43-225 Wola k/Pszczyny

Neutralization of
dangerous wastes,
desulfurization and
denitrification.

OWENT
Fabryka Wentylatorow
Al. Tysiaclecia 2a
32-300 Olkusz
tel. 431-194
fax 431-334

PAFAWAG
ul Fabryczna 12
53-609 Wroclaw
tel.(071) 552-258, 562-111
fax 551-289

PAN
Instytut Podstaw
Inzynierii Srodowiska
ul. M. Sklodowskiej-Curie
41-800 Zabrze
tel. 717-040,716-481

**POLISH ENVIRONMENTAL FIRMS
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PARYTOZ sp.z o.o.
ul. Bytomska 3
42-640 Piekary Slaskie
tel. 812-006 w.17

PCC Sp.z o.o.
ul.Litewska 11
80-719 Gdansk

**Steel containers for
wastes.**

**PEFO - Przedsiębiorstwo
Produkcyjno-Wdrozeniowe
Sp.z o.o.**
ul.Długa 41/47
53-633 Wroclaw

**CONTACT REPORT P062292B
Mr. Wieslaw Gaczynski**

PEMUG S.A.
Przedsiębiorstwo Montazu
Konstrukcji Stalowych
i Urzadzen Gornicznych
ul.Reymonta 24
40-029 Katowice

**CONTACT REPORT P062592
Mr.Jan Szemet**

PENTROL B.V.
Biuro Informacji Technicznej
ul. Jakuba Kubickiego 17/27
02-954 Warszawa
tel. 408-786
tel. 427-014
fax 408-786

**Pilskie Przedsiębiorstwo
Robot Inzynieryjnych**
ul.Piaskowa 29
64-800 Chodziez

**Wastewater purifications
for small towns,industry,
settlements,breweries.**

POFRIS-SARL sp.z o.o.
ul. Piotrkowska 113
90-430 Lodz
tel.321-297
fax 321-372

**POLISH ENVIRONMENTAL FIRMS
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POLCONSULT Ltd.
ul. Wilcza 31
00-544 Warszawa

POLGEOL
ul. Berezynska 39
03-908 Warszawa

Reports on environment
condition, hazard maps,
water quality control.

POLHO Sp.z o.o.
Polsko-Niemiecka
ul. Damrota 18
40-021 Katowice

Water and gasses purify,
utilization of wastes,
air filters.

POLIMEX-CEKOP Sp.z o.o.
ul. Czackiego 7/9
skr.poczt. 815
00-950 Warszawa

Water supply systems,
recultivation of lakes,
wastewater purifications,
air pollution control eq.

POLINVEST Sp.z o.o.
Biuro Doradztwa
Ekonomiczno-Prawnego
AL. 3-go Maja 9
30-062 Krakow

CONTACT REPORT P061392
Ms. Maura McGovern

Polish- Swedish Petrol
ul. Leszczyńskich 3/35
80-464 Gdansk
tel.(058) 576-484

POL KORK S.A.P.P.H.
ul. Książęca 1
60-963 Poznan
tel. 793-315
fax 793-120

**POLMAG-EMAG - Przedsiębiorstwo
Mechanizacji, Automatyzacji i
Elektroniki Gorniczej**
ul. Niechcicka 20
06-400 Ciechanow

Possibility of equipment
manufacture for
environmen protection.

**POLISH ENVIRONMENTAL FIRMS
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**POLMO - Fabryka
Samochodow Rolniczych
Zaklad Mechaniczny
ul. Sikorskiego 12/13
61-535 Poznan**

**POLMO - Fabryka
Osprzetu Samochdowego
ul. Przybyszewskiego 99
93-126 Lodz
tel. 814-135
fax 740-597**

**POLON
ul. Grzegorza 2
80-408 Gdansk**

**CONTACT REPORT P052592
Mr. Janusz Droszcz**

**POLON
Zaklad Zastosowan
Techniki Jadrowej
ul. Kosciuszki 112
40-519 Katowice
tel. (032) 519-207, 518-076 to 8
fax 517-282**

**POLON S.A.
ul. Oficerska 4/2
10-214 Olsztyn
tel/fax 260-446**

***POLON - ZELMECH
Przeds. Prod.-Handlowe
ul. Fabryczna 14/17
65-410 Zielona Gora**

Environmental protection.

**POLSKIE GORNICTWO
NAFTOWE I GAZOWNICTWO
ul. Szczepanowska 21
32-800 Brzesko**

1992

**POLISH ENVIRONMENTAL FIRMS
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POLTRMIX
ul. Promienista 27
60-959 Poznan 2
tel/fax (061) 673-191

**POL-WIN Zaklad Przetworstwa
Tworzyw Sztucznych
Maciej Kazimierczak**
ul. Powstancow Wielkopolskich 3
63-600 Kepno
tel/fax 229-68

POM sp.z o.o.
ul. Wodociagowa 1
66-500 Strzelce Krajskie
tel.914
fax 283-63

***PONAR-BIPRON - Przeds.
Projektowania i Dostaw
Przemyslu Obrabiarek
i Narzedzi**
ul. Solec 48
00-382 Warszawa

POSTEOR
ul. 3go Maja 55
81-743 Sopot

Mr. M. Moskwa

**POWOGAZ - Fabryka Aparatury
i Urzadzen Komunalnych**
ul.Koninska 26
62-045 Pniewy

**Wastewater purification
type BIOBLOK.**

**POWOGAZ - Osrodek
Badawczo-Rozwojowy
Aparatury i Urzadzen Komunalnych**
ul.Szczepanowskiego 13
61-541 Poznan

**Wastewater purifications,
sludge dewatering station
(stacje odwadn.osadow).**

**POLISH ENVIRONMENTAL FIRMS
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POWOGAZ S.A.
Fabryka Wodomierzy
ul. Janickiego 23/25
60-542 Poznan
tel.(061) 444-01
fax 411-501

*Poznanskie Zaklady
Chemiczne
Lubon k/Poznania

The technology (unique
in the world) for
utilization of waste
materials.

PPH AURA sp.z o.o.
ul. 1-go Maja 24/31
71-627 Szczecin
tel. 228-785

Pracownia Inzynierii
Ochrony Srodowiska
ul. Bratkowa 33
85-361 Bydgoszcz
tel.396-826

Pracownia Perfekt
ul. Grenadierow 24/49
04-052 Warszawa
tel. 107-036

dr inz. Jerzy Slowikowski

Pracownia Projektowa przy
Rolniczej Spoldz.Produkc.
KIELCZEWO
64-000 Koscian

Wastewater purifications.

Pracownia Projektowa
"Dom jak drzewo"
ul. Wasowiczow 8
33-300 Nowy Sacz

PREDOM PROJEKT
Biuro Projektowo-Technologiczne
Al.J.Slowackiego 35
50-411 Wroclaw

Utilization of galvanic
wastes.

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PRESKO Wytwornia
Urządzeń Komunalnych
ul. Długa 29/35
53-657 Wrocław

PRO-AGRI
ul. Szalasowa 2
05-410 Józefów 3

Mr. Romuald Wojciechowski

PROAT - Biuro Projektów
Ochrony Atmosfery
Pl. Orła Białego 1
70-562 Szczecin

Air protection.

PROATOM
ul. Modlińska 15
03-216 Warszawa
tel. 111-985

PROCHEM S.A.
ul. Ostrobramska 103
04-118 Warszawa
tel. 100-081
fax 107-694

PRODWODROL-SULECHÓW S.A.
ul. Zwirki i Wigury 2
66-100 Sulechów
tel. 24-21, 24-22
fax 713-05

PROECO sp.z o.o.
ul. 3 Maja 25
43-300 Bielsko-Biała
tel. 286-47
fax 210-50

PROEKO LTD.
Dr Bronisław Kamiński
ul. Krzywickiego 34
02-078 Warszawa
tel/fax 625-3648

**POLISH ENVIRONMENTAL FIRMS
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PRO-EKO
ul. Bartycka 26
00-716 Warszawa

PROFIT P.U.B.
ul. Przemysłowa 52
43-100 Tychy
tel/fax (832) 273-603

PROJMORS
Biuro Projektów
Budownictwa Morskiego
ul. Waly Piastowskie 24
80-855 Gdansk
tel. (058) 316-502
fax 314-588

PROJPRZEM S.A.
ul. Bernardynska 13
85-950 Bydgoszcz

CONTACT REPORT P061192
Mr. Jerzy Zareba
FAX 1062692

PROMEL
ul. Katowicka 39
45-061 Opole

***PROMEX - Przeds.
Usług Promocyjnych**
ul. Górskiego 7
00-033 Warszawa
tel. 278-454
fax 273-074

PROMIN Sp. z o.o.
ul. Lesna 19
85-676 Bydgoszcz

CONTACT REPORT P061592
Mr. Rychłowski, Mr. Wojcik

PROSERVICE
ul. Kormoranów 4/14
44-100 Gliwice

Microbiological remedy
SZAMBEX.

**POLISH ENVIRONMENTAL FIRMS
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**PROSYNCHEM - Biuro Projektow
i Realizacji Inwestycji
Przemyslu Syntezy Organicznej
ul.Konstytucji 11
44-100 Gliwice**

**Environment protection
plants.**

**PROTECH - Przedsiębiorstwo
Projektowania i Dostaw
Al.J.Pilsudskiego 153
92-318 Lodz**

**CONTACT REPORT P061292
Mr.Stefan Koslinski**

**PROWENT - Biuro Projektow
Klimatyzacji i Wentylacji
Rynek 50
50-116 Wroclaw**

**Przedsiębiorstwo Badan
Geofizycznych
ul.Stalingradzka 34
03-301 Warszawa**

**Prospecting of
underground water and
mineral deposits.**

***Przeds. Budowy
Elektrowni i Przemyslu
ul. Czapliniecka 44
97-400 Belchatow**

**Environmental protection
plants.**

**Przedsiębiorstwo
Produkcyjno-Handlowe
"MET-POL" w Niedobiu
ul. Warecka 15
98-200 Sieradz**

**Przedsiębiorstwo Projektowania
i Dostaw Urzadzen
Ochrony Srodowiska
ul. Braterska 12
30-802 Krakow**

**POLISH ENVIRONMENTAL FIRMS
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***Przeds. Realizacji
Usług Technicznych
ul. Kosciuszki 136
61-717 Poznan**

**Przedsiębiorstwo Rekultywacji
i Gospodarki Wodno-Ściekowej
Przemysłu Węglowego
ul. Chlebowa
44-335 Jastrzebie Zdrój
tel. 63-073
fax 63-070**

**Przedsiębiorstwo
Robot Inżynieryjnych
ul. Findera 8
43-100 Tychy
tel.(832) 276-141,276-147
fax 272-801**

**PRZEDSIĘBIORSTWO ROBOT
WIERTNICZYCH I GÓRNICZYCH
ul. Puławska 18
00-975 Warszawa
tel. 492-451
fax 495-847**

**PURAC POLAND
ul. Listopada 11
43-300 Bielsko-Biała**

**PURE AIR sp.z o.o.
ul. Kamienna 43/45
53-307 Wrocław
tel. (071) 681-155 w.650, 627
fax 619-107**

**Przedsiębiorstwo Usług
Inwestycyjnych sp.z o.o.
Al. Niepodległości 60
43-100 Tychy
tel.(832) 273-877,275-375**

**POLISH ENVIRONMENTAL FIRMS
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Przedsiębiorstwo Zmechanizowanych Robot Inżynieryjnych Mr.Stolarski, Dr.Stylinski
ul. Plk. S. Dabka 2
30-955 Krakow

PTH ECONOMY
ul. Marcelinska 71
61-407 Poznan
tel/fax (061) 673-341

PUHP "PAGOR"
ul. Szopienicka 58
40-432 Katowice
tel.(032) 156-3517 w.5990
fax 155-5506

PUPH "INPREX"
ul. Gen. Jankowskiego 15
40-615 Katowice Ochojec
tel.(032) 525-065 w.255, 277
fax 528-333

PWP sp.z o.o.
Pl. Starynkiewicza 5
02-015 Warszawa
tel. 628-8061 w.275, 519
fax 410-566

PZL - SEDZISZOW
Wytwórnia Filtrow
ul. Fabryczna 4
39-120 Sedziszow

Filters for oil and air
cleaning.

PZL - SWIDNIK
Wytwórnia Sprzetu
Komunikacyjnego
ul. Przdownikow Pracy 1
21-045 Swidnik

Flue gas cleaning
installations.

1992

**POLISH ENVIRONMENTAL FIRMS
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RADIOTECHNIKA sp.z o.o.
ul. Sienkiewicza 6
50-335 Wroclaw
tel.(071) 210-960
fax 224-655

RADIUS Sp.z o.o.
ul.Leborska 19
80-386 Gdansk

RADUS Sp.z o.o.
Przedsiębiorstwo
Produkcyjno-Uslugowe
ul.Sienkiewicza 1
81-374 Gdynia

Industrial wastewater
purifications.Speciality:
oily wastewater from
machinery industry.Water
supply system.Coal clean.

RADWAG
ul. Grudniowa 37/39
26-600 Radom
tel/fax 314-928

***RADWENT ZUTP**
ul. Młodzianowska 94
26-600 Radom

Roof's fans.

RAFAKO
ul. Lakowa 33
47-400 Raciborz
tel.(0335) 21-71
tel.(039) 121-817
fax (0335) 34-27
fax (039) 121-817

RAFAKO-EKO sp.z o.o.
ul. 22 Lipca
47-440 Nedza k/Raciborza
tel.(0335) 21-71 w.216
fax 34-27

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RAPID
Agencja Handlowa
ul. Kamionkowska 35
03-812 Warszawa
tel. 101-793

RAWENT - Zakłady
Urządzeń Odpylających
i Wentylacyjnych
ul. Domarasiewicza 3/5
96-106 Skierniewice

**Installations for
dedusting and ventilation**

REDOR
ul. I.J.Paderewskiego 11
43-300 Bielsko-Biała
tel. 250-31
fax 202-43

Rejonowe Przedsiębiorstwo
Wodociągów i Kanalizacji
ul. Obr. Westerplatte 130
40-334 Katowice

**Services in the range of
reparation of water supply
damage.**

REMAK
Przedsiębiorstwo Rekonstrukcji
i Modernizacji Urządzeń Energetycznych
ul. Zielonogorska 3
45-955 Opole
tel. 320-11, 387-09
fax 298-50

REMES LTD.
ul. Słowiańska 26
80-381 Gdansk
tel/fax (058) 522-475

REMOPAP
UL. Grunwaldzka 182/196
60-309 Poznan
tel.(061) 674-451
fax 671-322

**POLISH ENVIRONMENTAL FIRMS
DECEMBER, 1992 - PAGE 60**

REPROSYSTEM
ul. Brzozowa 13
40-168 Katowice
tel.(032) 584-453

R.K.Romanowski i Spolka
Przedsiębiorstwo OILSTOP
ul.M.C.Sklodowskiej 73
87-100 Torun

ROLLSTICK P.Z.
Biuro Informacji Technicznej
ul.Bartycka 26
00-716 Warszawa

Solving problems of air
protection in industrial
plants.Container wastewat
purifications.Utilization

contact address:
ul. Spasowskiego 1/3
00-950 Warszawa
tel. 279-011 w.221
fax 261-011 w.287

ROTANES
ul. Erazma Ciolka 17
01-445 Warszawa
tel. 362-242
fax 659-3040

CONTACT REPORT P060592
Mr. Marek Rozwadowski

SAKO INTERNATIONAL
ul. Jasna 1
00-950 Warszawa
tel.270-562, centrala 267-221
fax 274-896

SANEKO - Centrum
Innowacyjno-Wdrozeniowe
ul. Herbsta 22, Box 200
76-200 Slupsk 1
Tel./Fax 39 252

Environmental protection
publications.
Jerzy Walczak

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SANEKO sp.z o.o.
ul. Lowicka 43
02-557 Warszawa
tel. 499-408,494-020
tel/fax 482-729

SANITECH sp.z o.o.
ul. Krolowej Jadwigi 11
87-100 Torun
tel.(056) 283-65
fax 106-38

SANTINA Ltd.
ul.Lipowa 37
05-520 Konstancin

Water filters.

SATO sp. z o.o.
Wielobranzowe Przedsiębiorstwo
ul. Slowackiego 5/23
41-902 Bygoszcz
tel. 210-887

SEFAKO
ul. Przemyslowa 6
28-340 Sedziszow
tel.(498) 610-36
fax 620-49

SEGI-PBG sp.z o.o.
ul. Jagiellonska
03-310 Warszawa
tel. 112-492
fax 112-492

SEIKO
sp.z o.o.
ul. Krakowiakow 80/98
02-255 Warszawa
tel. 465-465-976

**POLISH ENVIRONMENTAL FIRMS
DECEMBER, 1992 - PAGE 62**

SEPARATOR

Główna Biuro Studiów
i Projektów Przerobki Węgla
Al. Korfantego 2
40-952 Katowice
tel.(032) 598-061 to 7
589-080 to 9
fax 597-667

SERWIS AKPIA

ul. Krancowa 9
61-022 Poznań
tel.(061) 770-581 w.376,377
fax 774-004, 127-335

SIAL-tronik GmbH
ul. Pułaskiego 7
35-011 Rzeszów
tel/fax 623-313

Ger.-Polish joint venture
company. Protection and
purification of water.

SKLEJKA-EKO S.A.
ul. Reymonta 35
63-400 Ostrow Wlkp.

Gas purification of HCHO
on biological compost.

**SLANDI - Przedsiębiorstwo
Zagraniczne**
ul. Debowa 12
05-816 Michałowice

CONTACT REPORT P062692
Mr. Andrzej Szlapa

SOLVE
ul. Nadbrzeżna 1
62-500 Konin
tel.(063) 429-453

**SONIX - Przemysłowe
Urządzenia Elektroniczne**
ul. Spokojna 9
05-260 Marki k/Warszawy

Ultrasonic flowmeters,
sludge density controller
(sygnalizator steżenia
osadu).

**POLISH ENVIRONMENTAL FIRMS
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SONOPAN
Przedsiębiorstwo
Doswiadczalno-Produkcyjne
ul. Ciolkowskiego 2/2
15-950 Bialystok

Producer of measuring
apparatus: light and
sound level meters.

SPIRO - Zaklad Produkcji
Urzadzen Ekologicznych
ul. Centralna 91
31-586 Krakow

Dust removal installation
for power generating
industry.

* Spoldzielnia Kolek
Rolniczych
ul. Warszawska 22
32-830 Wojnicz k/Tarnowa

Flue gas cleaning
plants.

Spoldzielcze Zaklady
Techniczno-Wdrozeniowe
ul. Zawiszy Czarnego 8/10
91-829 Lodz

SPOMASZ
ul. Powstancow Wielkopolskich 23
64-510 Wronki
tel. 540-561 to 68
direc. 540-156
fax (061) 521-261

SPOMASZ AVISPOM
ul. kaliska 61/63
63-400 Ostrow Wlkp.
tel. 656-11
fax 611-36

STANSTAL
ul. Miedziana 10
76-200 Slupsk
tel. 439-144

205

**POLISH ENVIRONMENTAL FIRMS
DECEMBER, 1992 - PAGE 64**

STEJTER

inz. Piotr Stejter
ul. Sienkiewicza 5
88-100 Inowroclaw

STOLICA KONSULTING sp.z o.o.

ul. Kredytowa 3
00-056 Warszawa
tel. 260-879, 264-251
fax 264-291

SUMECH

ul. Bielanska 10
30-246 Krakow
tel/fax (012) 675-780

SWINGTHERM - Laboratorium

Katalizy Stosowanej
ul. Bularnia 5
31-222 Krakow

Purify of gasses, decay of
organic wastes.

SYSTEM B.E.S.T. Sp.z o.o.

ul. Gotwalda 12a/16
40-139 Katowice

Proecological control
systems to save energy &
raw materials, utilization
of waste, wastewater purif

SYSTEM EKO

ul. Miodowa 6/8
00-251 Warszawa
tel. 635-0614,
tel. 267-021 w.628
fax 635-0907

SZUSTER

ul. Malopolska 28/3
40-737 Katowice
tel./fax (032) 526-476

SZUSTER

Biuro Techniczne
98-351 Naramice

Plants for composting of
wastes, biogas producing
plants.

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**POLISH ENVIRONMENTAL FIRMS
DECEMBER, 1992 - PAGE 65**

T. GRA-MATRIX
ul. Blawatkowa 4
61-464 Poznan
tel/fax (061) 323-265,
tel. 300-011

TAKO Sp.z o.o.
ul. Lechicka 19
02-156 Warszawa

Air-conditioners.

TANMIL sp.z o.o.
82-316 Milejewo
tel. 122-24
fax 122-83

TEBAH
ul. Hagera 41
41-800 Zabrze

**CONTACT REPORT P071492
Dr. Korneliusz Wojnar**

**TECATOR - Biuro
Przedstawicielskie**
ul. Parkowa 9/8
00-759 Warszawa

**Laboratory and medical
equipment.**

TECH - AGRO
sp. z o.o. w W-wie
Oddzial w Katowicach
ul. Podgorna 4
40-026 Katowice
tel.(032) 156-1065, 156-1161

TECH - UNION
ul. Kossutha 6
40-832 Katowice
tel.(032) 546-031

TECHEM
ul. Dluga 8/14 m.2
00-238 Warszawa
tel. 635-8115, 635-8384
fax 635-8114

**POLISH ENVIRONMENTAL FIRMS
DECEMBER, 1992 - PAGE 66**

TECHLOR sp.z o.o.
ul. Boleslawy 17
61-054 Poznan
tel.(061) 790-097

TECHMA PROJEKT
Przeds. Projektowania
i Realizacji Inwestycji
ul. Polna 40
00-716 Warszawa

Air and water protection.
Mr. W.Fruner

TECHMA-ZUGIL
Zaklady Urzadzen
Galwanicznych i Lakierniczych
ul.Sieradzka 56
98-300 Wielun

CONTACT REPORT.P071492

TECHMEX sp.z o.o.
ul. Marynarska 14
02-674 Warszawa
tel. 434-432,
fax 432-782,
tel/fax 433-082

TEHABUD sp.z o.o.
ul. Gronowa 20
61-655 Poznan
tel.(061) 207-081 w.352,
358,359

TEL-EKO
Zaklad Elektroniki
ul.Slezna 110/128
53-111 Wroclaw

Control-measurement
apparatus for liquid
analysis, mobile laborat.
for wastewater analysis.

TERMAK-1
ul. Jednosci Narodowej 43/45a
50-260 Wroclaw
tel.(071) 226-925

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**POLISH ENVIRONMENTAL FIRMS
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TERENBUD
ul. Zubrow 3
71-617 Szczecin
tel.(095) 231-570,
tel.232-021 w.330
fax 520-005

CONTACT REPORT P062792
Mr.Robert Bugajny

THERMEX
ul. Friedleina 4/6
30-009 Krakow

Mr. Andrzej Listwan

THERMO
Firma Usługowo-Handlowa
ul. Sowinskiego 45
40-018 Katowice
tel.(032) 156-4222

TIPS
ul. Wolowska 41
60-161 Poznan
tel. (061) 673-671

TKP - Consultants Ltd.
ul.Swierczewskiego 117
00-140 Warszawa

Technologies of waste
utilization,wastewater
purifications.

**TOMASZOWSKA FABRYKA
FILCOW TECHNICZNYCH**
ul. Warszawaska 2/4
97-200 Tomaszow Mazowiecki
tel. 2331

TOMEXIM
Przedsiębiorstwo Handlowe
Eksport-Import
ul.Zeromskiego 14
41-500 Chorzow

Instalments for clean
water,magnetizers,filters
equipment for oil
utilization,wastewater
purifications.

**POLISH ENVIRONMENTAL FIRMS
DECEMBER, 1992 - PAGE 68**

TORFBUD Sp.z o.o.
Zakład Ochrony Środowiska
ul.Zmudzka 4
60-604 Poznan

Reduction of emission of
contaminators into air.
Wastewater purifications.
Gas desulfurization equi.

TRANS-WEST-GmbH
ul. Poselska 28
63-000 Sroda wlkp.
tel/fax 559-68

TRACK Sp.z o.o.
ul.Hortensji 16
91-480 Lodz

Alternative sources of
energy.Wastewater
purifications.

TYWENT - Tyczynska Fabryka
Urządzeń Wentylacyjnych
ul. Sienińskiego 6
35-959 Rzeszow

UNIPROAT
ul. obywatelska 128/152
94-104 lodz
tel.(042) 865-560
fax 863-881

UNITECHNIKA S.A.
Przedstawiciel CMC
ul.Mielzynskiego 27/29
61-725 Poznan

Free chlorine detectors
in air and water,plants
for chlorinate of water.

UNITEX-Centrum
Badawczo-Wdrozeniowe
ul.Leborska 9
80-386 Gdansk

Water filters for iron and
manganese removal.

UNIVEX
ul.Wroclawska 37A
30-011 Krakow

Air-conditioners.

**POLISH ENVIRONMENTAL FIRMS
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Usługowa Spółdzielnia Pracy
ul. 1-go Maja
82-300 Elbląg

Boilers for central
heating, dust removing
cyclons.

VENPAN - Zakład Doswiadczalny
Podstawowych Problemow Techniki PAN
ul. Nowotki 1
24-110 Pulawy

WAMAG
ul. wroclawska 93
58-306 Walbrzych
tel. 780-81 to 86
fax 782-62

WARIANT
Pracownia Projektowa
ul. Astrow 10
40-045 Katowice
tel. (032) 513-421 to 7, 515-151

WARKOS sp.z o.o.
ul. Owsiana 9/11
03-835 Warszawa
tel/fax 102-988

WARMA - Pomorskie Zakłady
Urządzeń Okretowych
ul. Lotnicza 21
86-300 Grudziądz

Wastewater purifications
type BLOK.

WIBEX Sp.z o.o.
Biuro Organizacyjno-Techniczne
ul. Batorego 9
07-300 Ostrawia Mazowiecka
tel. 38-52
fax 280-076 W-wa

Storage yards
(uszczelnianie
składowisk).

**POLISH ENVIRONMENTAL FIRMS
DECEMBER, 1992 - PAGE 70**

Wielkopolskie Przedsiębiorstwo
Robot Inżynieryjnych
ul. Szarych Szeregów 23
60-462 Poznań
tel.(061) 201-002/03
fax 201-031

WIKTOR sp. z o.o.
Przedsiębiorstwo
Handlowo-Produkcyjno-Uslugowe
ul. Wroclawska 39/65
41-902 Bytom
tel. 813-945, 630-431

WITRATEMP
ul. Armii Krajowej 7/4
26-600 Radom
tel/fax (848) 316-949

WOBEX
Export-Import
Os.XXX-lecia, pawilon 19c
44-286 Wodzislaw Slaski

Biological wastewater
purifications, air-
conditioners, toilets.

WODPOL Sp.z. o.o.
Przedsiębiorstwo Realizacji
Infrastruktury Technicznej
i Społecznej
ul. Osikowa 68
40-181 Katowice

WOD-PEG sp.z o.o.
ul. Nowopogonska 227
41-253 Czeladz
tel.652-953
fax 652-717

WOMAR
ul. Skosna 12
30-383 Krakow
tel.(012) 660-121

**POLISH ENVIRONMENTAL FIRMS
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WROSILBET sp.z o.o.
ul. Traugutta 1/7
50-954 Wroclaw
tel.445-154
fax 443-487

WUKO WSCHOWA sp.z o.o.
ul. obroncow warszaway 26
67-400 Wschowa
tel.(065) 403-614
fax 403-618

**WUKO Wytwornia
Urzadzen Komunalnych**
ul. Okopowa 70/106
91-850 Lodz
tel. 575-110,
tel/fax 574-497

**WUTECH - Przedsiębiorstwo
Proukcji Maszyn i Urzadzen**
ul.Lipowa 3
63-600 Kepno

**WYROB I NAPRAWA
Urzadzen Elektro-Technicznych**
ul. Wyrobka 9D/33
80-288 Gdansk-Morena
tel. 487-333

**WYTWORNIA PRZYRZADOW
LABORATORYJNYCH**
ul. Gornych Walow 27
44-100 Gliwice
tel.(0320 319-515
fax 312-784

**POLISH ENVIRONMENTAL FIRMS
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**WYTWORNIA SPRZETU
LABORATORYJNEGO**
ul. Szyby Rycerskie
41-909 Bytom
tel. 819-221

ZACHOD
Miejski Kombinat Budowlany
ul. Falecka 10
02-547 Warszawa

Zakład Badawczo-Wdrozeniowy
Inżynierii Ochrony Środowiska
ul. Konstytucji 3-Maja 10
58-500 Jelenia Góra
tel. 226-20, 262-71

Zakład Budowy Szybow
ul. Katowicka 18
41-900 Bytom

**ZAKŁAD DOSKONALENIA
ZAWODOWEGO**
ul. Żółkiewskiego 37/41
87-100 Toruń
tel. 398-525 to 27
fax 398-535

*Zakład Maszyn Rolniczych
i Konstrukcji Stalowych
ul. Miedziana 10
76-200 Słupsk

Containers for wastes.

Zakład Mechaniczny
inz. T. Stomian
ul. Bukowa 9
41-303 Dąbrowa Górnicza

Magnetizers and desludges

**POLISH ENVIRONMENTAL FIRMS
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Zakład Ochrony Przyrody
i Zasobów Naturalnych
ul. Lubicz 46
31-512 Kraków
tel.(012) 210-348,2150144

Zakład Odsalania Wód
Dolowych KWK "Debiensko"
44-230 Leszczyny
tel.280-002
fax 311-017

ZAKŁAD PRODUKCJI
OCZYSZCZALNI ŚCIEKÓW
ul. Słężna 185
53-100 Wrocław
tel/fax (071) 671-223

Zakład Produkcji
Urządzeń Ekologicznych S.C.
ul. Centralna 91
31-586 Kraków

Zakład Projektowania i
Nadzoru
ul. Grabowskiego 9F m.57
80-809 Gdańsk
tel.(058) 328-705

Zakład Techniki Odpylania
ul.Graniczna 11
26-200 Koneskie

Producer of dedusting
plants (filters).
Mr. Zbigniew Golanko

Zakład Techniki Prozniowej
ul. Przemysłowa 1/3
75-216 Koszalin

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**POLISH ENVIRONMENTAL FIRMS
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Zakład Technologii
Oczyszczania Ścieków
Os. Zwycięstwa 15/46
61-680 Poznań

Mr. A. Terlecki

ZAKŁAD URZĄDZANIA
I UTRZYMANIA ZIELENI
inz. Gedzior i sp.
ul. Korczaka 11
31-215 Kraków
tel/fax 331-808

Zakład Usług Technicznych
Przedsiębiorstwo
Innowacyjno-Wdrożeniowe
ul. Nowowiejska 9
05-506 Komorów

Zakłady Papiernicze
ul. Opolska 103
47-300 Krapkowice

CONTACT REPORT P061592B
Mr. Lech Wieczorek

Zakłady Naprawcze
Sprzętu Węglowego
ul. Rymera 19
44-270 Rybnik
tel. 271-46
fax 273-36

Zakłady Urządzeń Technologicznych
ul. Dąbrowskiego 6
12-100 Szczytno

ZAM Zakład
Urządzeń Hutniczych
ul. Kosciuszki 115
32-650 Kety
tel. (0381) 523-85
fax 536-53

**POLISH ENVIRONMENTAL FIRMS
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***ZAMECH - Zakłady
Mechaniczne
ul. Stoczniowa 2
82-300 Elbląg**

**Adaptation of technology
and production capacity
in the field of equipment
manufacture.**

**ZANMERK sp.z o.o.
ul. elektoralna 19B/11
00-137 Warszawa
gtel.187-951**

**ZASTAL - Zaodrzańskie Zakłady
Przemysłu Metalowego
ul. Sulechowska 4a
65-119 Zielona Góra**

**Manufacture of selected
equipment for envir.prot.**

**ZGODA - Zakłady Urządzeń
Technicznych
ul. Wojska Polskiego 66
41-603 Swietochłowice**

Equipment manufacture.

**Z-H-J "ECOINSTAL"
Import-Eksport
Projektowanie i Wykonawstwo
Instalacji
ul.Kwitnaca 45
52-242 Wrocław**

**ZUGIL S.A.
ul. Sieradzka 56
98-300 Wielun
tel.(0437) 3341 to 49
fax 326-554**

LARGE SCALE COMMERCIAL PRODUCTION OF
"BIOBRIQUETTES" FROM WOOD WASTES

PROSPECTUS

WIMEX CO. LTD.

ul. Powsancow Slaskich 5
85-665 BYDGOSZCZ
POLAND

TEL: (48-52) 41.22.07
FAX: (48-52) 41.02.84
KOMERTEL(48-39) 12.19.65
TELEX: 562841, 562887

APRIL, 1993

DISCLOSURE

The U. S. Agency for International Development (AID) supports a long-term Resident Environmental Business Advisor to the private environmental business sectors in Poland, the Czech and Slovak Republics, and Hungary. Kenneth J. Macek, Ph.D., based in Warsaw, served in this capacity from February, 1992 through April, 1993.

The principal functions of the Advisor are to help private environmental enterprises improve their competitiveness, in both domestic and foreign markets, and access foreign and/or domestic investment. Dr. Macek screens the business sectors in each country to identify suitable environmental business opportunities. He targets firms that (a) focus on market demand; (b) create real competitive advantages; and (c) are have a strategy to leverage those advantages into market penetration and, ultimately, market leadership. He assists selected domestic firms to access credit and equity capital, U.S. technology, and/or joint-venture partners.

The Advisor prepared this Prospectus to describe the business and investment opportunity WIMEX Co. Ltd (Bydgoszcz, POLAND). WIMEX proposes the large scale manufacture of biobriquettes from wood wastes. The Advisor intends the Prospectus assist investors to evaluate WIMEX's business and markets, the project's associated investment risks, and the potential financial returns to investors.

The material concerning the Company's business, markets and strategy reflects the understanding of the AID Advisor that results from (a) his familiarity with the current business and environmental conditions in Poland; (b) representations made to him by the management of WIMEX Co. Ltd.; and (c) the information contained in the Business Opportunity Report entitled "Biobriquette Production in Poland", prepared by Sanders International, Inc., Washington, DC (January, 1993).

Dr. Macek provided assistance to WIMEX under a contract with the U.S. AID. The Advisor's assistance does not represent, nor imply, any endorsement of WIMEX, its business, or this investment proposal by the Advisor or the U.S. Government. Interested parties should conduct their normal due diligence activities before taking action concerning this investment opportunity.

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EXECUTIVE SUMMARY

This "Prospectus" describes WIMEX Co. Ltd., which is engaged in the production of "biobriquettes". Biobriquettes are synthetically densified fuels manufactured from renewable resources (biomass). WIMEX currently produces biobriquettes from wood wastes. The Company's most significant strategic advantage is its proximity (150 m) to a guaranteed (through 1998) supply of suitable, low cost raw materials. In fact, the guaranteed supply of raw materials, available to WIMEX on an annual basis, exceeds its anticipated needs, for purposes of this plan, by a factor of three.

WIMEX is seeking US\$ 5 Million in equity financing to develop a modern, high volume facility, using western technology, to manufacture biobriquettes for both domestic and foreign markets. The Company proposes to expand its production capacity (50X). It also intends to manufacture both cosmetic (log) briquettes and the more utilitarian (brick) briquettes.

WIMEX intends to supply low cost, high quality log briquettes for use in domestic heating in the environmentally conscious countries of Sweden, Denmark, the Netherlands, Germany and Austria. The markets for such products are well developed in these countries, and demand far exceeds supply.

It also proposes to manufacture brick type briquettes, as an alternative to high sulphur coal, for the generation of heat in Poland (and eventually the other countries of Central and Eastern Europe). The company's domestic strategy is to provide a lower cost (20%), cleaner (95-99% less sulphur dioxide) fuel alternative to coal.

This Prospectus includes a set of *pro forma* financials based on the assumption that WIMEX utilizes German technology and credit financing. It is probable that there exists suitable U.S. technology, that might be provided to WIMEX under more favorable terms, perhaps through the Export-Import Bank.

Based upon a set of reasonably conservative assumptions regarding sales mix, price and revenues over the next five years, it appears that U.S. investors can achieve attractive rates of return on invested capital, with relatively low risk. The risks might be further reduced through mechanisms available to U.S. investors from OPIC.

INTRODUCTION

Biobriquettes are synthetically densified fuels manufactured from renewable resources (biomass). Densification sometimes includes the use of chemical binders (e.g. lime). Biobriquettes are often manufactured from solid wastes resulting from the manufacture of wood and paper products or agriculture.

There are two principal forms of biobriquettes. The first are termed "cosmetic" briquettes (logs). These briquettes look, smell and burn like natural logs. They are intended primarily for residential heating consumption. The second common form of biobriquettes is a more utilitarian type product (bricks). These are intended as an alternative to fossil fuels (coal) in the small commercial boilers (e.g. smoke houses) and in the larger district heating plants, common in Central and Eastern Europe (CEE).

The principal markets for log briquettes are in western Europe. In addition, domestic markets are also emerging in Poland for log briquettes.

Significant potential markets also exist in CEE countries, among state-operated utilities to utilize lower cost bricks to reduce their dependence on high sulfur coal. Substitution of biobriquettes for coal results in both lower operating costs and significant environmental benefits.

Production of biobriquettes is an attractive investment opportunity in CEE countries, such as Poland. Not only are the economics of production extremely favorable to the investor, but also environmental benefits are obvious and considerable. This latter consideration is extremely important in a country whose environment has been desecrated by inefficient use of readily available, but poor quality, energy resources and by historical disregard for effects of the by-products of industrial activity.

There are several significant environmental benefits associated with the production of biobriquettes. First, biobriquettes offer an alternative to sulfur rich coal in CEE countries. Their use reduces the amount of sulphur dioxide emitted. It also mitigates indirect forms of environmental degradation associated with current methods of coal production, distribution and consumption.

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Also, biobriquette production constitutes the processing (recycling) of wood wastes into commercially valuable products. Such wastes often produce toxic (acid) runoff, threatening surface and groundwater supplies. They also pose the threat of spontaneous combustion of such waste piles. Utilization of such wastes as commercially valuable raw materials reduces the dangers to people, property, and the environment.

Despite environmental benefits, the Advisor recognizes that investors must judge business opportunities primarily on the basis of economics, strategy, risks and financial returns. Factors such as current and future market demand, reliable sources of low cost raw materials and labor, transportation costs, competition, and competitive advantages all are key to analyzing potential investment risks and returns.

The objective of this Prospectus is to describe, for potential investors, the proposed development of a modern facility for large scale production of biobriquettes from wood wastes. WIMEX Co Ltd. proposes to construct and operate a facility in Bydgoszcz, in north central Poland, with the capacity to produce 58,000 tons of biobriquettes per year. The facility will utilize state-of-the-art, reliable western breveting technology. The primary product (75% of the production) will be log briquettes for export to western European markets.

For strategic reasons, the facility will devote a portion of their capacity (25%) to produce brick type briquettes for the local utility, to partially replace high sulfur coal in the district heating system.

DESCRIPTION OF THE BUSINESS

The Company

WIMEX Co. Ltd. (WIMEX) is a small private Polish company organized in 1989 specifically to produce biobriquettes from wood wastes, such as bark, sawdust and wood chips. Over 1-2 million tons of such wood wastes are produced in Poland each year. The Polish Ministry of Environment estimates that 4-5 million tons of such wastes are currently stored in waste piles in Poland. These wastes are considered significant potential threats to surface and groundwater resources.

The company currently operates on a 28,000 m² site adjacent to the Swiecie paper mill in Bydgoszcz. The site is owned by Mr. Z. Muszynski, who is the Director-President of WIMEX. The site has access to power. It is close (150 m) to the main road from Bydgoszcz to Gdansk, with highway connections to the west (e.g. Berlin). In addition, it is less than 400 m from a rail platform, and 8 km from a river port. From this port, access is available to major river routes to Western Europe through the Bydgoszcz channel and the Notec river. No residential areas lie in close proximity to the site.

Most important to the future success of the company is WIMEX's proximity (150 m) to the Swiecie paper mill. This mill alone produces more than 150,000 tons of wood wastes (bark and sawdust) per year. In addition, the Swiecie paper mill has accumulated and stores 500,000 tons of wood wastes. These stored wastes, alone, are sufficient to supply the necessary raw materials, to WIMEX's proposed production facility, for 5-6 years. The mill is anxious to rid itself of the environmental problems and liabilities associated with storing such large volumes of potentially hazardous wastes.

Thus the paper mill entered into a ten year contract with WIMEX in 1988. The contract provides that the paper mill will supply WIMEX with up to 300,000 tons of wood wastes per year. With modern production equipment, this guaranteed source of wood wastes is sufficient to produce approximately 200,000 tons of biobriquettes per year.

The company has been producing biobriquettes, on a relatively small scale (i.e. 0.2 tons/hr), using both Polish equipment (dryers and shredders) and Austrian equipment (press) for the past four years. The management proposes, initially, to increase annual production approximately 60-fold, to more

than 58,000 tons per year (10-12 tons/hr). It seeks equity investment of approximately US\$ 5 Million to finance the required purchase of modern western production equipment and the construction of associated facilities to implement its planned expansion. Should market demand for these products develop as expected, WIMEX intends to further expand its production capacity to meet demonstrated demand.

Product(s)

Sufficient local demand (Bydgoszcz district heating facility) exists for 100% of WIMEX's initial proposed biobriquette production (as bricks). However WIMEX proposes to devote approximately 75% of the proposed production capacity to the manufacture of log type biobriquettes for export to Western Europe. The primary reasons for this strategic decision are (1) the existing domestic price structure for coal (and thus coal substitutes) in the CEE countries, and (2) the current price for log briquettes in Western Europe.

A market price of \$55-65/ton for the log briquettes is well established in Western Europe. In addition, demand in Western European countries exceeds the current production capacity.

Conversely, the price that the local district heating plants will pay for biobriquettes (\$50-55/ton) is determined by the current price of coal, minor incremental costs associated with adapting existing boilers to accommodate both coal and biobriquettes, and the perceived quality of the currently available bricks.

The incremental capital investment required to allow existing commercial boilers to burn bricks is considered negligible by the customer. The major factor limiting the current price for bricks is their variable quality and availability in large quantities.

The most commonly used coal for heating in north and central Poland is Grade II (high sulfur) coal. It originates from mines located in southern Poland. The coal is distributed nationally overland (by truck) at an average cost of \$73/ton. Despite the fact that the price of coal is still subsidized in all of the CEE countries, biobriquettes currently enjoy an obvious price advantage relative to coal. This advantage is real as the caloric (Kcal/Kg) value of the two products are virtually identical. There appears to be considerable price elasticity in the domestic market for brick type briquettes.

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An additional consideration is the environmental benefits associated with substituting briquettes for coal as an energy source. These include recycling of potentially dangerous waste materials into energy, reduced emissions of sulphur dioxide and a significant reduction of ash, compared to coal. Furthermore, as the market economies of CEE countries begin to internalize the true environmental costs of energy production, the cost advantages of briquettes, as a substitute for coal, will increase, creating additional price elasticity.

WIMEX proposes to devote 25% of its manufacturing capacity to the production of briquettes (bricks) to replace coal in small and large district heating plants. The reasons for this decision are economic (see above), political and strategic.

Politically, the image of the company as a good corporate Polish citizen would suffer if all of its production were exported to benefit the west. WIMEX's will undoubtedly enhance its relations with local municipal and environmental officials by contributing to the solution of air pollution problems in Bydgoszcz.

Strategically, developing an image and presence as a local supplier of environmentally friendly products (bricks) will also serve to prime the domestic market for higher priced log briquettes, as well as support higher prices for bricks as coal substitutes.

Markets

The markets for WIMEX's log briquettes are primarily Denmark, Sweden, Germany, Austria and The Netherlands. The "greening" of residential consumers in these countries has produced an environmentally enlightened customer. He is typically aware of the environmental benefits associated with renewable energy resources, and is willing to pay a "premium" for such environmentally compatible sources of energy.

Thus, export demand, especially in Scandinavia, is for high quality log products, Sanders International, Inc. reported that some estimates indicate as much as half of the homes in southern Sweden are heated with briquettes. There is also emerging in Poland, demand for log briquettes. For example, WIMEX has a request for 50,000 tons of such product from a Polish trading company (Domiko). The request indicates willingness of the Polish customer to pay the equivalent of \$53-55 per ton for the product. It seems reasonable to expect

that prices for log briquettes in Poland will increase substantially, as state subsidies for coal are removed and the true environmental costs of its use are internalized.

In Poland's domestic commercial markets, the current demand is for consistent quality product (bricks) and a reliable supply. The Sanders report points out that "there is no reason to think that commercial] demand will be saturated given the enormous pressures to reduce the pollution from coal burning and the relatively small portion (1-2%) of total energy consumption that biobriquettes could satisfy, even under the most optimistic assumptions".

WIMEX has received a written "expression of interest" from the local district heating authority. The authority indicates it would be interested in purchasing as much as 50,000 tons per year of "bricks" to replace high sulfur coal. This interest, of course, is dependent upon reliability of the supply and a competitive price. Clearly, it would be imprudent for WIMEX to allocate 100% of its proposed production capacity to a single customer, who is currently unwilling to pay a price comparable to that currently available on the export market.

On the other hand there are a variety political and strategic reasons for WIMEX to allocate a portion of its production capacity to the local district heating facility.

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COMPETITION

Domestic competition is characterized by 25-30 small volume (<1,000 tons/year) producers that rely on local sources of wood wastes and Polish equipment. Suppliers export virtually all of their production, although often of poor quality, to western Europe, at prices ranging from \$45-65 per ton.

Ready access to a reliable supply of raw materials and the durability and reliability of Polish equipment limit the capacity of these "mom and pop" operations to significantly increase production and provide consistent quality products. Consequently, these domestic competitor's ability to enter into long term, large volume supply contracts is severely limited. Currently, there are no domestic competitors operating on the "commercial scale" proposed by WIMEX.

Competitive Advantages

Implementation of the WIMEX proposal creates several real competitive advantages for the company in both the markets for both log and brick type biobriquettes. First, guaranteed ready access to a long-term, reliable supply of low cost raw materials provides WIMEX with a significant cost advantage. WIMEX plans to transfer the wood wastes from the Swiecie mill to its adjacent production facility by pneumatic conveyor.

The price of raw materials may increase as their value in the production of biobriquettes becomes more generally perceived. On the other, as the liabilities and penalties associated with the storage of such wastes increase, the generators may be come more anxious to find low cost, or no cost, methods of disposal. Furthermore, the volumes of such wastes produced in Poland can be expected to increase significantly, as Poland's pulp and paper products industry grows from its relatively modest levels. For example, Poland's current *per capita* consumption of paper is currently only one third that of other Central European countries (e.g. the Czech Republic) and only one tenth that of a typical western country. This difference should rapidly disappear, creating a significant in industry production and increased waste products.

In either event, long term access to a reliable and adequate supply, at a known cost, is clearly an advantage to potential investors trying to estimate production costs and potential returns on investment. Should the cost of raw materials and their transport increase, WIMEX's relative cost advantage increases. Should prices decrease, WIMEX might avail itself

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of alternative sources of supply, or renegotiate the terms of it's current supply contract.

Secondly, economies of scale should provide WIMEX with additional significant cost advantages. More importantly, the scale of proposed production will allow WIMEX to enter into long term, high volume supply contracts under more favorable terms. Both of these factors provide strategic flexibility in pricing, providing avenues to increase market penetration, establish market leadership, and provide more attractive returns to investors.

Relative to export markets for the log products, reliable western manufacturing technology and product quality will provide WIMEX with significant competitive advantages versus domestic competitors. Its cost advantage derived from the availability of relatively low cost raw materials, will allow it to compete with competitors in western Europe. Also, the proposed production capacity will allow WIMEX to negotiate long-term, high volume supply contracts with customers in western Europe. For example, WIMEX has received an inquiry from Scanfuel (A Danish firm), regarding the purchase, from WIMEX, of 30,000 tons per year of log briquettes. WIMEX has identified several additional potential customers in western Europe interested in large quantities of log briquettes.

In emerging domestic markets, the environmental benefits of biobriquettes, relative to coal, are real and strategically significant. The well documented problems of air quality in the CEE countries have clearly been shown to be the product of inefficiency in energy production and reliance on poor quality energy sources (locally available high sulfur coal). The analysis (below) illustrates the advantages of biobriquettes as a substitute for domestic coal.

	BARK BRIQUETTE	COAL GRADE II	COAL GRADE I
AVERAGE PRICE/TON	\$ 55	\$ 73	\$ 95
KCAL./KG.	3900-4850	4100-5000	6500
SULPHUR (%)	0.09-0.10	3.0-5.0	1.0-3.0
ASH (%)	4.9-5.5	15.0-20.0	10.0-15.0

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The above analysis indicates that the combustion of one ton of Grade II coal produces 30-50X the amount of sulphur dioxide as the same quantity of biobriquettes. The emission charges for the additional sulphur dioxide emitted from coal, as opposed to the bricks, represent an additional cost to the utility of more than \$30 per ton. Furthermore, the ash remaining from coal combustion is viewed as a waste requiring additional cost expenditures. Conversely the ash remaining from the combustion of biobriquettes contains little, if any, of the heavy metals typical of coal ash and has been shown to be suitable as a fertilizer supplement in agriculture. It is thus viewed as a commercially valuable by-product rather than a waste product.

WIMEX submitted a description of its proposed production project to the Regional (Wojewoid) Environmental Department requesting review and comment on the environmental aspects of the project. The Environmental Authority's response to WIMEX specifically endorsed the project. The Department commented that it [the project] will "considerably limit [reduce] the quantity of waste stocks which are harmful for the air, soil and water...[and]...result in decreasing of sulphur dioxide emission when coal is replaced with briquettes". Their response also pointed out that "the bark substrates [ash] will be an excellent fertilizer containing no polluting substances and [will be] proper for different agriculture". The Regional Environmental authority's response concluded by stating that "our Department is convinced that utilization of bark and wood wastes will be of great benefit for [the] natural environment and will also result in good economic effects".

STRATEGY

WIMEX proposes to install western manufacturing equipment to produce approximately 58,000 tons of biobriquettes (without binder) per year. WIMEX expects the operation of the facility, and sale of the proposed product mix (75% logs-25% bricks) during the first year to verify their assumptions about foreign and domestic market demand. It will also serve to verify the operating (cost) model and financial returns to investors. Upon successfully demonstrating market demand and verifying the operating model, WIMEX proposes to seek equity capital to expand production by an additional 50,000-100,000 tons per year.

WIMEX intends to posture itself in the export market for log biobriquettes as a low cost, high volume, reliable supplier of superior quality of product. It will leverage its cost advantages, derived from its proximity to a long term, low cost supply of raw materials to penetrate western European markets for log briquettes. It will utilize its ability to produce relatively large quantities of high quality products (logs) to build market share in western European markets.

At the same time WIMEX will posture itself as the low cost, high volume supplier of consistent quality (caloric value) bricks for use as a replacement for high sulfur coal. By developing this market, WIMEX will build an image as the largest supplier of environmentally compatible fuels in Poland. It will leverage this image to prime the development of a domestic market for its higher margin log products.

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FINANCIAL INFORMATION

Required Investment

WIMEX seeks an equity investor to provide US\$ 5 Million in financing to develop the initial phase of the proposed project. It estimates that the total project development cost will be in excess of US\$ 7 Million. This figure includes interest on an anticipated hard currency credit, as well as working capital. The company has already expended US\$ 1.3 Million, and expects its total contribution to exceed US\$ 1.5 Million (20% of estimated project costs). A detailed description of proposed investment outlays, developed by WIMEX, is presented in Enclosure No. 1.

The investment and operating model that WIMEX has developed is based on the use of German (Krupp) technology for producing the biobriquettes. The cost of this equipment is quoted at 8 Million DM, approximately US\$ 5 Million. Krupp has arranged credit financing for WIMEX for 85% of the purchase price under favorable terms and interest rates. However, the German Bank (Kreditanstalt fur Wiederaufbau) requires a guarantee from a Polish Bank. In order to secure such guarantees in Poland, 180% collateral is required. This represents an obvious "Catch-22" for virtually any credit financing in Poland.

WIMEX is not committed to the Krupp technology. It is one with which it is familiar, and which it knows to be reliable. It is possible that comparable suitable technology is available in the U.S. It is also possible that, should U.S. suitable U.S. technology be available, it might qualify for favorable financing terms (e.g. through the EX-IM Bank). Furthermore, if a U.S. investors take an equity position in the project, it's likely that more favorable financing could be arranged through a commercial bank, without the requirement for the guarantee from the Polish Bank. The project could even be 100% equity financed. Whatever structure is deemed suitable, it seems certain that the use of U.S. technology and/or the participation of a U.S. investor will provide access to more favorable financing than that currently proposed by WIMEX.

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Operating Model

The Project is planned to be completed in early 1994, with start-up scheduled for February. The WIMEX model assumes the initial project is financed with hard currency credit, the company's own resources, and Polish zloty operating credit the latter two components to provide 100% of working capital. A general profile of the current proposed financing is;

- hard currency credit	74%
- polish zloty credit	4%
- company resources	21%
- current profits	1%

The details of WIMEX's production cost model are presented in Enclosure No. 2. The general assumptions underlying the model are presented in Enclosure No. 3.

WIMEX assumes the selling price in the domestic market is 80% of an average coal price (i.e. ~\$55/ton). Export prices are based on current prices for quality product in Scandinavia and Germany (~\$120/ton). Planned yearly sales volume is based on an assumption that the plant operates 11 month out of the year. The current analysis assumes 60% sales to the domestic market and 40% to the export market. The total annual sales is estimated at US\$ 4.7 Million.

As discussed in this prospectus, the Advisor believes that WIMEX assumption about the domestic price is reasonable and that it could readily sell 60% of its production in domestic markets. However, the Advisor believes that, based on the representations of WIMEX, it could also export the majority of its product to western Europe. The Advisor cannot confirm whether or not WIMEX's estimate of price for its briquettes in foreign markets is realistic. However, even if the actual price were 50% than WIMEX estimate, the 75-25 mix of foreign and domestic sales generates the same \$4.7 Million revenues used by WIMEX in its analysis.

Pro Forma Financials

Five-year *pro forma* income statements, cash flows, and balance sheets are presented in Tables 13, 14, and 15. The Advisor believes these indicate significant returns on investment. For example, the cumulative positive cash flow during the period is estimated at almost US\$ 7 Million (before the effects of inflation). Although inflation in Poland presents a substantial risk to future earnings, this

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is clearly a much more manageable and predictable risk with regard to the export markets. The Advisor believes this is another reason to direct the majority of production capacity toward the export markets.

The *pro forma* financials also seem to conservatively reflect potential financial returns over the five year period 1994-1998, as some of the assumptions appear ultra-conservative. For example, in the out years both revenues and operational costs are shown to be constant. Although both will likely increase over the life of the plan, it seems reasonable to assume the price elasticity evident in both foreign and domestic markets should allow to revenues to increase faster than production costs. All other factors being equal, this should generate additional cash flow and higher retained earnings.

Regarding risk, it appears that by proposing a modest initial production facility (relative to known markets and customers, both domestic and foreign) WIMEX is minimizing the risk that it will be unable to meet its sales projections. In addition, analysis indicates that the volume of sales required to cover all fixed costs (excluding credit repayment) is only 24% of planned sales. This situation appears to provide a wide margin of safety to potential investors, particularly equity investors.

The Advisor concludes that the business activity proposed by WIMEX Co. Ltd. appears to represent a relatively low risk, high reward investment opportunity. This would appear to be true based purely on an economic analysis of the rate of return on net investment. It also appears to be a business that is without the environmental risks typically associated with investments in CEE countries. Finally, the environmental benefits derived from the business activity are real and not insignificant. Furthermore, they contribute to the creation of real competitive advantages for WIMEX in its markets.

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INVESTMENT OUTLAYS

1. Investments already made

According to experts assessment made by NOT (Main Technical Organization) in August, 1990 (reg. No 776/90 D) with update of the value figures made in December, 1992 (reg. No 776/90/A/92).

2. Investments to be made

Import

Purchase of the "Krupp" production line - 8 mio DM
(briquetting machine, dryer, conveyors, packing department)

Above value includes also costs of transportation, assembling, insurance during transportation and assembling, training and documentation.

At this stage it isn't possible to fix value figures for these separate elements of the contract.

Domestic outlays

Warehouse building for ca. 1200 t. of briquette (400 sq m)
Built by a Russian company - payment settled within a special agreement (delivery of goods).

Estimated value ca. 800 mio zl.

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Purchases - fork lift truck	ca. 150 mio.zl.
- loader	ca. 200 mio.zl.
- auxiliary equipment	ca. 200 mio.zl.
Cost of L/C	ca. 713 mio zl.

3. Financing

Purchase of the production line - hard currency credit
 (presumably from a German bank with interest of 12 % p.a.
 repayment in 3 years, 10 instalments)

Domestic outlays - own sources

Working capital - 20% own sources

80% operating credit

Financing of "Krupp" line - irrevocable letter of credit
 confirmed by renounced German bank;

10% paid on order

40% paid when assembled

50% paid when started-up

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OPERATIONAL FIGURES

1. Production

Starting date - February, 1994

Full capacity - April, 1994

(February - 60%, March - 80%)

Capacity in tonns/hour	- 10
Working hours/day	- 24
Working days in month	- 22
Working months in year	- 11

2. Costs - raw material consumption per 1 t of ready product

1,15 t (0,15 t for dryer heating)

price of raw material - 5000 z1/t

Electricity consumption - briquetting machine - 240 KW/h

- dryer - 15 KW/h

price - 1000 z1/KWh

Water consumption - 5 1/1 t of ready product (cooling system)

price - 8000 z1/cu.m

Packing - plastic foil (export sales)

8 running m/1 t of ready product

price - 1,5 DM/1 running m

3. Employment

	Number	Average salary wage
Director	1	
Factory manager	1	6 mio. zl.
Accountant (part time 1/2)	1	2,5 mio. zl.
Foreman	1	3,5 mio. zl.
Loader and lift truck operator	1 x 3 shifts	2,5 mio. zl.
Line operator	4 x 3 shifts	2,5 mio. zl.

Note: analysis includes vacation and and sick leave reserve of 8% of salaries/wages

4. Other costs (excluding salaries/wages)

Electricity consumption

conveyors 7 hrs/day	5 KW/h
lightining	1,5 KW/h

Fuel consumption

loader 6 hrs/day	8 l/hr
lift truck 6 hrs/day	8 l/hr

diesel fuel price - 7000 zl./l

Maintenance and repairs - machinery and equipment

(except Krupp line) - 0,1% of starting value per year

Buildings -200 mio.zl.every 3 years

Spare parts -production line 1% of starting value per year
-other machines and equipment 10%

Industrial safety - 10 mio.zl./month

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5. Administration costs (excluding salaries/wages)

Telecommunication	5 mio. z1/mth
Office materials	0,5 mio. z1/mth
Bussines trips	3 mio. z1/mth
Property tax	54 mio. z1/year

6. Raw materials supply

Factory location - Konopat Wielki near Przechowo

Raw materials stock - at the dump	ca. 500,000 t
- yearly income	ca. 120,000 t
- yearly outcome	ca. 30,000 t

7. Sales

Markets:

60% domestic market, heating plants in Northern Poland.

A detailed analysis of the market potential is under elaboration (by the group of experts from Main Technical Organization and Municipal Heating from Bydgoszcz - completion date - 18.02.1993.)

40% export market, Germany and Scandinavian countries (packed in plastic bags).

Selling price (ex works) - domestic	900.000 z1/t
- export	200 DM/t. = 1/20/70W (N101)
Payment terms - domestic	bank remittance
- export	banker's checque

8. Active Capital

Due amounts	min. in days.
domestic	60
foreign	5
Packing - plastic foil	90
Spare parts	180
Ready products	5
Cash	1
Liabilities	15

Enclosure No 3

GENERAL ASSUMPTIONS

- | | |
|---|-------|
| 1. Exchange rate PLZ/DM | 9900 |
| 2. Zloty credit interest rate | 49% |
| 3. Duty - n.a. | |
| 4. Turnover tax - n.a. | |
| 5. Income tax - 40% of gross profit | |
| 6. Charges on salaries/wages - 47% | |
| 7. L/C charges - each 3 month period (up to 6 months) | 1,5 % |
| each month over 6 months | - 1% |
| 8. Banker's commission - 1% of sales volume on average | |
| 9. Insurance | |
| - production buildings | 1,15% |
| - warehouse buildings | 1,25% |
| - office buildings | 0,85% |
| - machinery and equipment | 0,70% |
| 10. Depreciation rate | |
| - buildings | 2,5% |
| - machinery and equipment | 8% |
| - non-material values & legal rights | 20% |
| 11. Dividend - 10% of net profit after credit repayment | |

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12. Property residual value

- production line	30%
- other machinery and equipment	0
- buildings	40%
- working assets	100%
- land	100%

13. Project economic life cycle

20 years

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Tab 13 Working Capital

	1995		total
	mic.zl.	mic. DM	
Running assets	5704.924	0.179	7475.209
Cash	22.219	0.000	22.219
Debt:			
domestic	5220.000	0.000	5220.000
foreign	0.000	0.064	638.000
Stock	462.715	0.114	1595.990
Materials:			
-others	0.000	0.000	0.000
-materials	0.000	0.000	0.000
Spare parts	466.500	0.040	892.500
Packing:			
domestic	0.000	0.000	0.000
foreign	0.000	0.070	638.050
Production in progress	0.000	0.000	0.000
Ready products	55.215	0.005	105.440
<u>Running Liabilities</u>			
Liabilities	91.688	0.000	91.688
Net working capital	5613.246	0.177	7284.551
Working capital increase	722.500	0.060	1216.775

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Tab 13 Statement of net incomes

Description	1993.000	1994.000	1995.000	1996.000	1997.000	1998.000
Sales (without turnover tax)	1700.000	66600.000	77256.000	77256.000	77256.000	77256.000
Operational cost	75.000	6312.500	7999.636	7799.636	7799.636	7999.636
Depreciation	953.000	9263.000	9363.000	9362.000	9262.000	9267.000
Operating profit	672.000	50924.500	59294.364	60074.364	60074.364	59390.364
Interest	0.000	10769.269	7451.126	5322.240	3193.344	1064.442
Gross profit	672.000	40155.231	52443.228	54772.124	56901.020	58225.916
Income tax	249.800	16062.092	20977.291	21906.850	22760.409	25230.266
Net profit (loss)	402.200	24093.139	31465.937	32865.274	34140.612	32995.650
Dividend	0.000	0.000	0.000	0.000	0.000	0.000
Profit retained	402.200	24093.139	31465.937	32865.274	34140.612	32995.650
Cumulated retained profit	402.200	24495.339	55932.275	88797.550	122938.162	155933.812

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Tab 14 Cash flow

Description	1992.000	1994.000	1995.000	1996.000	1997.000	1998.000
Revenues	114706.208	72557.538	77256.000	77256.000	77256.000	77256.000
a) own sources	24302.208	1213.508	0.000	0.000	0.000	0.000
b) sales revenues	1700.000	55600.000	77256.000	77256.000	77256.000	77256.000
c) hard currency credit	33704.000	0.000	0.000	0.000	0.000	0.000
d) other long term credits	0.000	0.000	0.000	0.000	0.000	0.000
e) short term credits	0.000	4854.030	0.000	0.000	0.000	0.000
Expenditures	113550.008	61306.628	55484.635	32770.524	51492.152	50334.250
Investment outlays	113006.808	6067.538	1316.775	0.000	0.000	0.000
Operating cost -	75.000	6312.500	7998.636	7792.636	7798.636	7998.636
Interest	0.000	10769.269	7451.136	5332.240	3192.344	1064.448
Credit instalments	0.000	22274.830	17740.800	17740.800	17740.800	17740.800
Income tax	263.800	16062.092	20977.291	21908.950	22760.408	23520.366
Dividend	0.000	0.000	0.000	0.000	0.000	0.000
BALANCE	1356.200	10961.208	21771.361	24465.474	25762.812	26921.750
CUMULATED BALANCE	1356.200	12217.502	33922.970	58474.344	34227.156	311153.906

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Tab 15 Balance Sheet

Description	1992.000	1994.000	1995.000	1996.000	1997.000	1998.000
ASSETS	113409.408	121057.938	124792.079	149914.553	166314.365	182869.115
Cumulated running assets	1256.408	18367.938	41465.079	65950.553	91712.365	118635.115
a) cash balance	1256.200	12217.508	33988.970	58474.344	84237.158	111152.906
b) running assets	0.208	6150.430	7476.209	7476.209	7476.209	7476.209
Net fixed assets	112053.000	102650.000	93327.000	83964.000	74601.000	65234.000
Losses	0.000	0.000	0.000	0.000	0.000	0.000
Liabilities	113409.408	121057.938	124792.079	149914.553	166314.365	182869.115
Running liabilities	17740.800	17823.483	17832.483	17832.488	17832.483	91.689
liabilities to be paid	0.000	91.683	91.689	91.683	91.683	91.683
b) short term credits	0.000	0.000	0.000	0.000	0.000	0.000
c) running instalments of long term credits	17740.800	17740.800	17740.800	17740.800	17740.800	0.000
Long term credits	70963.200	53222.400	25451.600	17740.800	0.000	0.000
Liability totally	63704.000	71045.883	53314.083	35572.283	17832.483	91.683
Share capital	24302.208	25515.716	25515.716	25515.716	25515.716	25515.716
Retained profit	402.200	24476.338	55962.275	32825.550	123461.122	159231.711

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