

CENTRAL CONNECTICUT STATE UNIVERSITY
Management Training and Economic Education
in
Eastern and Central Europe
Grant No. EUR-0029-G-00-1039-00

Report for February, 1994

I. ADMINISTRATION:

The pace of training activities continued in intensity during February. We offered multiple workshops in the field of management training, the monthly workshop in Organizational and Managerial Communication, the first session of Privatization Counselling, and several workshops under the auspices of the Center for Continuing Education. All in all, the administration of these programs went smoothly. The only consistent problem our trainers faced was the unreliability of in-Poland flights on LOT due to weather difficulties-- three of the flights on which our people were scheduled were cancelled.

We have received written approval of our budget revision request. TUWr followed a careful, prudent process of bid review, ultimately selecting Alpha-Dach, a Wroclaw firm, to do the construction/renovation of the Center building. Professor Kremens and I discussed with the review committee the nature and purpose of the Center facility and what was necessary from a programmatic point of view.

I spent the period February 19-March 6 in Poland, all of that time in Wroclaw save for a working day in Warsaw and two working days in Gdansk. In Warsaw I met with Dr. Nina Majer and with several people from the Ministry of Privatization's Mass Privatization Program. The MPP has asked CCSU to coordinate a special training program for it in the future. In Wroclaw, I met with Rektor Wiszniewski, Vice Rektor Kremens, all activity and program coordinators except Professor Domagala, President Tomasz Wojcik of Solidarnosc, and Wroclaw Education Kurator Grazyna Tomaszewska, among others.

In Gdansk I met with the Rektors and with deans and faculty of management, general business, and economics from The University of Gdansk and The Technical University of Gdansk. They were keenly interested in what we are doing in Wroclaw, especially with TUWr. As a follow-up to our discussions, I have invited each Rektor, at his university's expense, to select several colleagues to visit Wroclaw in mid-April. At that time they can observe the third session of the new I.B.S. program, the sixth Workshop in Organizational and Managerial Communication, and the fourth Workshop in Production for Markets.

My visit to Gdansk was at the invitation of the Northern Council of Vistula River Vojevodas. The Council is composed of the Governors of the districts of Bydgoszcz, Elblag, Gdansk, Slupsk, Torun, and Wloclawek. It may add Koszalin and Szczecin to its membership. Connecticut's Polish-American community historically has had strong ties in Gdansk, and their colleagues in Gdansk were interested in discussing future potential projects. Specifically, my discussions were with the Vice-Vojevoda of Gdansk, the Vojevoda of Slupsk, and the Director of Press and Public Relations for the Gdansk district (who is a current participant in our Organizational and Managerial Communication activity). In addition to management training and economic education, we discussed the current practice of the Polish government, including the Council of Ministries, to centralize public administration and to replace vojevodas and others with Communist Party nomenklatura

types (this occurred, for example, in Legnica during my visit), both of which are anti-democratic in the Polish setting. Because of this, highlighted publicly in Poland by Director General Mirosław Stec's official resignation from the Council of Ministries, CCSU will not work with the Council of Ministries, at least for the time being.

Of related interest, given A.I.D.'s strong interest in promoting democracy in the region, I am glad to report that CCSU's National Endowment for Democracy-funded workshop in Change Management, January 8-15, 1994, in Szklarska Poreba, Poland, was highly successful. The thrust of the Workshop was quite timely: how can one initiate, build a consensus for, and sustain democratic change in a reluctant or stodgy bureaucracy. The sixty-two participants represented forty-seven of Poland's forty-nine districts, a number of gminas in Wrocław district, the City of Wrocław, and, of course, TUWr. Evaluations of the Workshop were quite positive. However, the timeliness of the topic underscored a real tension in the lives of public officials in Poland today-- the tension derived from fear of being replaced not on the basis of competence but rather of past Party work. Our frustration is, obviously, that we taught strategies for sustaining democratic change to a participant pool of which some may, for the near term, be unable to apply what they learned.

TUWr continues to be an excellent, reliable partner. Our professors and theirs work well together as teams, and this goes a long way toward explaining the successful records they are establishing.

II. PROGRAM CONTINUATION:

A. Activity I: Management Training

Program I: Institute for Business Studies

CCSU Coordinator: Professor Edward Rybczyk

TUWr Coordinator: Professor Zofia Krokosz-Krynke

This program is completed. The graduation ceremony for the third-year participants will take place at TUWr on March 18, 1994. CCSU Professor of Accounting and Coordinator for School of Business International Programs Jane Stoneback will confer the certificates.

Program II: Business Workshops/Short Courses-- Lower Silesia

CCSU Coordinator: Professor Henry S. Enck

TUWr Coordinator: Professor Zofia Krokosz-Krynke

Under the auspices of the TUWr Center for Continuing Education, two new, complete I.B.S. programs (nine sessions of thirty instructional hours each) were initiated in February. Session #1, Introduction to the Market Economy, lead taught by Professor Leszek Jurdzia, took place in Wrocław February 18-20 and in Legnica February 25-27.

In the Wrocław participant group of twenty-five, nine of whom are women, there are six TUWr professors and students, one unemployed person, ten employees in private firms, two professors from The Technical University of Krakow, and six workers in state enterprises. In addition to Wrocław and Krakow, the participants also come from such towns as Lubin, Przykonia, Olsztyn, and Grodkow.

In the Legnica participant group of thirty, eight of whom are women, there are eight people who work in private firms, twelve who work in state enterprises, one student, and nine public officials. In addition to Legnica and Lubin, they also come from such

towns as Zlotoryja, Glogow, Strzegom, Przemkow, Jawor, Piechowice, Prochowice, and Swidnica.

In light of the substantial changes taking place in Poland now, the Legnica group merits some comment. In Legnica recently the Solidarity government-appointed vojevoda was replaced by the current post-communist government in Warsaw. The replacement is an old party hack, a Communist Party nomenklatura member who has no profession. This practice of the current government, that of replacing government officials based on past Party activity rather than competence, as well as its distinctly anti-democratic centralizing emphasis, jeopardizes seriously A.I.D.'s democratic initiatives. The public officials in the Legnica group, including the current Vice-Vojevoda and a number of department heads, are intent on learning western business management as soon as possible because they face job loss shortly. Thus, the Legnica I.B.S. program, in particular, is quite timely.

Professor Czemplik and I had the honor of presiding at the Opening Ceremony for the Legnica I.B.S. program. I include in this Report several newspaper articles about this event including a front-page story in *Gazeta Legnicka* (Attachment A). Attachment B provides further information on these important programs of the Center for Continuing Education.

Originally, CCSU envisaged one I.B.S. program taught by our TUW_r colleagues in the fourth year. TUW_r is now teaching two such programs. I commend Professors Krokosz-Krynke, Wilimowska, and Czemplik and the teaching faculty for this achievement.

CENTER FOR CONTINUING EDUCATION STUDENT CONTACT HOURS

Wroclaw: 25 participants x 30 hours =	750 s.c.h.
Legnica: 30 participants x 30 hours =	<u>900 s.c.h.</u>
Grand Total:	1,650 s.c.h.

Program III: Production for Markets

CCSU Coordinator: Professor Edward Rybczyk

TUW_r Coordinator: Professor Tomasz Koch, Jr.

During the period February 21-28 CCSU Professor Paul J. Resetarits provided train-the-trainer and formal Workshop training in Statistical Process Control. On February 21 he concentrated on preparation planning with the six TUW_r professors with whom he worked most closely. On February 22 and 23 he worked with them seven hours per day in a train-the-trainers format, establishing the specific content for which they would be responsible during the formal Workshop. Professor Resetarits reports that "the TUW_r instructors were highly motivated and committed to this project. They were eager to learn as much as they could on the subject of Quality with Statistical Process Control. They had some fundamental knowledge in this area, but the training program brought their knowledge to a higher level."

The formal Workshop took place February 24-27. For each day respectively, attendance was thirty, thirty-two, thirty-two, and twenty-six. Of the original group of thirty-six enrolled, five are women. During the Workshop, I had the opportunity to address the group briefly, singling out for special commendation the two professionals from Rzeszow and the three from Warsaw who travelled to Wroclaw for this session.

The general topics covered included Statistical Process Control (SPC) as a Tool for Quality, Variable Control Charts, Process Capability Calculations, and Attribute Control Charts. The subjects within these broad categories included Histograms, Normal Distribution Curves, Variability, Gage Variation Studies, X and R Charts, Target X and R Charts, Individual X and Moving-Range Charts, Median Control Charts, Calculation of Control Limits, Interpretation of Control Charts, Calculating Cp and Cpk, p Charts, np Charts, c Charts, u Charts, Pareto Analysis, Process Flow Charts, Cause and Effect Diagrams, and Scatter Diagrams.

To convey the material, Professor Resetarits and the TUWr trainers utilized lectures, overhead transparencies, video tapes, a workbook, and problem solving. The professional rapport between Professor Resetarits and Professor Koch was excellent, the dedication of the participants noteworthy, and the contributions of the TUWr trainers substantial. I commend Professors Resetarits and Koch and the primary translator, TUWr postgraduate student Roman Dziuba, for a fine job. For your information I include as Attachment C the brochures for this and the March session prepared by Professor Koch.

STUDENT CONTACT HOURS

Train-the-Trainers:	
6 participants x 7 hours x 2 days =	84 s.c.h.
Workshop:	
Day I: 30 participants x 7 hours =	210 s.c.h.
Day II: 32 participants x 7 hours =	224 s.c.h.
Day III: 32 participants x 7 hours =	224 s.c.h.
Day IV: 26 participants x 7 hours =	182 s.c.h.
Miscellaneous:	
varying participants x 7 hours =	35 s.c.h.
GRAND TOTAL:	959 s.c.h.

As readers of these monthly reports know by now, The Technical University of Wroclaw is one of the premier higher educational institutions in Poland. Among its outstanding faculties is the Faculty of Mechanical Engineering and Automation. This faculty, which is our primary partner in this program, employs 150 people, seventy-two of whom are lecturers. It has strong existing links with the universities or politechniks of West London, Stuttgart, Dortmund, Berlin, Dresden, and Munich. Dean Jan Koch, academic leader of this faculty, is himself a leader in the coordination of research between and among European technical universities. Since 1991 he has sat on Poland's National Research Committee.

This faculty is especially entrepreneurial. To cite but one example in this lengthy report, CCSU professors presented a special program on January 12, 1993, for the Institute of Mechanical Engineering and Automation and its Manufacturing Systems Center; the program was titled "Quality: The Unutilized Factor of Industrial Productivity." Since that time, and before Production for Markets began in January, 1994, the Faculty of Mechanical Engineering and Automation presented five additional workshops on various aspects of quality management, design, and manufacturing strategies. These programs were funded in part by TUWr's TEMPUS grant. On April 7-8, 1994, the Institute will offer the first symposium in Poland that features Polish managers of industries joining academic faculty as presenters.

The ultimate test of sustainability of our projects at TUWr is the degree to which the training is incorporated in the regular offerings of the Technical University and in the additional offerings of The Center for Continuing Education. I had very productive and positive discussions with Dean Koch and others on this subject. I fully expect this distinguished faculty to participate extensively in the Center's offerings. To non-academics, this point might seem self-evident. To academics, it is the achievement of Vice Rektor Kremens and Dean Koch and the faculty themselves.

B. Activity II: Organizational and Managerial Communication

CCSU Coordinator: Professor Scott Olson

TUWr Coordinator: Professor Jan Waskiewicz

UWr Coordinator: Professor Marcelina Zuber

The fourth session of this Activity, Intercultural Communication, took place at The University of Wroclaw, February 24-27, 1994. The thirty-five participants focused primarily on such topics as opening a business in another culture, communicating in context, negotiations in differing cultures, legal, financial, and accounting aspects of opening a business in another culture, and multicultural organizations. CCSU Professor of Communication Ju Yanan worked closely with Marcelina Zuber, Dean Wojciech Sitek, and Zeiad Abou Salch of UWr, among others, in the train-the-trainers sessions, and his Polish colleagues provided lectures and commentary upon the various topics as they applied to the Polish setting.

For this Workshop the practitioners themselves were especially well-chosen. Anne Evans, CEO of Elm Energy & Recycling (UK) Ltd. is well-known for her mastery of a process to turn trash, especially old tires, into environmentally friendly, energy efficient electricity. Probably the most publicly visible of the practitioners we have brought to Wroclaw, Ms. Evans has been interviewed by CNN, Sky News, ABC Good Morning America, The Times of London, The New York Times, Fortune, and others. Attachment D is a copy with translation of an article on her that appeared in Gazeta Robotnicza on March 5, 1994. Ms. Evans presented a two-hour segment on opening businesses in different cultures with different languages, customs, and histories.

Russ Evans' background is in real estate development, investments, communication, and technology transfer. Currently Director of Finance and Project Development for Elm Energy & Recycling, he has been involved in American-based economic development efforts for more than two decades. Mr. Evans presented a three-hour segment on the legal, financial, and accounting aspects of doing business in different cultures. In his report, he noted that "the participants, including the economists, had difficulty with the concepts of risk and profit, thinking that the Polish Army (from the sale of arms) and state enterprises were (or should be) profitable because of the risks they take." This should not be surprising for a fee-paying participant pool comprised largely of working people, but it does indicate how much is left to do.

Participants were provided with "substantial material," in the words of Professor Zuber, a good portion of which she translated. The Workshop featured a variety of teaching techniques including lectures, case studies, role playing, and simulations. One of the challenges for the CCSU professors is to continue to emphasize the importance of these various methods to convey content since Polish professors are accustomed to the pure lecture approach. As a cost share, The University of Wroclaw provided the facility and xeroxed a substantial portion of the teaching materials. The in-session translation was done by Liliana Marciniak and Ewa Hoyemska.

Professor Ju, who visited Wroclaw for the first time, called his trip "a great experience." He is especially complimentary of Professor Zuber "who attended to every detail with skill and patience. She was thoroughly organized and worked extra hours to make sure everything went as planned." In his report, Professor Ju observes that, "considering the fact that many participants were practitioners from various fields, we spent more time talking about practical intercultural communication issues and their relation to the globalization of economies than discussing abstract concepts and terms. Pure theories were not emphasized.... It turned out to be quite successful.... Many participants took a great interest in relating some of the learned knowledge to their actual work situations."

I commend Professor Ju for a conscientious, excellent job.

STUDENT CONTACT HOURS

Train-the-Trainers: 5 participants x 4 hours x 3 days =	60 s.c.h.
Workshop: 35 participants x 22 hours =	770 s.c.h.
After class planning/preparation/evaluation: 5 participants x 2 hours x 7 days =	70 s.c.h.
GRAND TOTAL:	900 s.c.h.

C. *Activity III: Economic Education*

Program I: Economics Education for Lower Silesian High School Teachers CCSU
Coordinator: Professor Ronald Daigle
TUW_r Coordinator: Professor Lech Stefan

The next formal session of this program will take place in March, 1994. Professor Daigle and the TUW_r teaching assistants continue to spend a great deal of time preparing for this session and for the publication of their two volume An Introduction to Basic Market Economics which shall be completed before the end of this calendar year.

REVISION IN THE PROJECT IMPLEMENTATION PLAN:

As mentioned in a previous report, this program has been so highly successful that Professor Kremens and I, in American slang, have "a tiger by the tail." The program has developed a life of its own, as it were, with next year's program already set to begin in July. For it Kurator Tomaszewska has recruited teacher trainer/participants from, among others, the districts of Krakow, Poznan, Leszno, and Kalisz. I have asked her to include teacher trainers from one or two districts of the Northern Region of Poland also. Important to the A.I.D. objective of sustainability, Kurator Tomaszewska reports that Krakow and Poznan are expected to establish teacher trainer centers in market economics similar to the one she established in Wroclaw.

Professor Kremens and I have agreed to reallocate monies from various savings lines to fund the July program and to fund the preparation of Vol. II of An Introduction to Market Economics. As a cost share, TUW_r will pay for the printing costs for both volumes.

Program II: Market Economics Education for Solidarnosc Workers' Council Heads

CCSU Coordinator: Professor Ronald Daigle

TUWr Coordinator: Professor Lech Stefan

This program is virtually completed.

Program III: Privatization Counselling

CCSU Coordinator: Professor Henry S. Enck

TUWr Coordinator: Professor Danuta Domogala

During the past several months TUWr's Coordinator Danuta Domogala has endured the anguish of losing both of her parents, first her father in January and then her mother just after this session was completed. This trauma required her to return to her hometown of Lubin for much of this period, including the time of the first session of this program. Professor Domogala is one of the most efficient and competent people I have met in Wroclaw during the past three years.

For the first session of Privatization Counselling, CCSU recruited two highly skilled businessmen: Donald Gonsalves, former CFO of Remington Products, and Joseph Lynch, a Connecticut banker. Both have extensive experience working in developing countries, including those undergoing the painful transition from a command to a market-driven system. Both men are not professors or professional trainers. They are skilled practitioners. This program is not a training program; it is a counselling program, one in which they are expected to provide advice and insights.

Counselling for the TUWr departments contemplating or facing privatization and for the Solidarnosc factory managers was difficult. At TUWr, for example, accurate accounting information is hard to come by. The latest financial information available was as of the end of September, 1993, largely, we were told, because a new, mechanized accounting system is being instituted. These participants, Mr. Gonsalves reports, "didn't know much about internal or external pricing. With inflation running at about 3%/month and very late financial/accounting data, their pricing was way behind which was causing major problems. I told them to anticipate inflation and forward price."

The CCSU counsellors took the participants through a typical organizational chart and indicated that there were new functions which had to be paid for. These new functions-- marketing, advertising, sales, product planning, legal, financial analysis, credit, etc.-- would increase their yearly costs. They also familiarized the participants with typical western corporations specializing in both consumer and industrial products. They "indicated that, after taxes, western corporations only make 5%-10% [per year in net profit]... and that if they [Poles] borrowed from a bank, their costs would even be higher." They also reviewed typical balance sheets.

Finally, the counsellors went into some detail on how to prepare a business plan. The groups' assignments were to prepare business plans that called for borrowing from a bank or privatizing. They examined each expense in detail as well as balance expenses. They reviewed a make vs. buy case, then split the groups into owners and workers, asking what each group would do in a make-buy situation.

This session was the least successful one we have offered in Wroclaw. Attendance was 70% of what we expected, and the participants lacked the fundamental economic knowledge to benefit sufficiently from the counselling available to them. I have recommended that during the next six weeks the Market Economics Teaching

Assistants provide the sixteen-hour market economics training program to these participants.

In my opinion, one of the difficulties this program faces is the differences of opinion among Polish people and within the trade union Solidarnosc on the whole subject of privatization. For example, many of Solidarnosc's more prominent advocates of privatization have left the trade union for careers in politics, government, or business. A high percentage of those still in the trade union do not have university educations. They face constant pressure to "pay everyone the same" and hear daily the opinion that Poland must slow down the rate of privatization. Still, the specter of Porcelena Walbrzych is fresh in many minds.

We knew when we proposed this program that it would be a challenge. It is. The next formal counselling session will take place in May. It will be led by Connecticut banker Paul Pirotta, who has already participated as a trainer in several of our banking sessions in prior years.

REVISION IN THE PROJECT IMPLEMENTATION PLAN:

The April session featuring Professor Patlovitch is re-scheduled to June.

STUDENT CONTACT HOURS

GROUP I:

Day I: 13 participants x 5 hours =	65 s.c.h.
Day II: 14 participants x 4 hours =	56 s.c.h.

GROUP II:

Day I: 13 participants x 5 hours =	65 s.c.h.
Day II: 14 participants x 4 hours =	<u>56 s.c.h.</u>
GRAND TOTAL:	242 s.c.h.

During our time together in Wroclaw, Mr. Gonsalves and I spent three hours one evening discussing the general topic of privatization and some particulars with Solidarnosc President Tomasz Wojcik.

III. CENTER FOR EXCELLENCE:

CCSU Coordinator: Professor Henry S. Enck
TUW_r Coordinator: Professor Zdzislaw Kremens

A. Master's degree study at Central Connecticut State University:

The three Polish participants studying for Master's degrees in Organizational and Managerial Communication are progressing nicely.

Professor Leszek Jurdziak has been refused permission to study for an MBA at CCSU by his dean, the Dean of the Institute of Mining Engineering. TUW_r is selecting an alternate for Professor Jurdziak.

REVISION IN THE PROJECT IMPLEMENTATION PLAN:

CCSU Professor of Accounting Walter Parker has proposed, and Professor Kremens and I have agreed, that he teach the first two Accounting courses in the MBA program

in Wroclaw this summer under the auspices of the Center for Continuing Education; that the three MBA candidates take these courses for credit; and that an additional 10-15 Polish professors/students also take these courses for certificates of completion.

One of our concerns has always been that participant training at CCSU cause as little family disruption for the participants as possible. This proposal, in effect, delays the participants' departure to CCSU by two months. It saves some money. And it permits this instruction to reach a greater number of Polish professors and students. For these reasons, among others, I shall request Mr. French's permission for this revision and its attendant budget adjustment.

B. *Center for Continuing Education:*

TUWr Coordinator: Dr. Andrzej Czemplik

First, I must emphasize an important point with regard to the ultimate sustainability of the Center at TUWr. The Center's long-term sustainability will be determined in large part by the extent to which the Center and its programs are woven into the fabric of The Technical University of Wroclaw's academic and institutional structure. This process began when Professor Kremens obtained the unanimous vote of the TUWr Faculty Senate last October to accept the Center as part of the university. The process continues now as Professor Kremens continues to interweave the Center into the fabric of the university, in this instance by assigning Dr. Czemplik to write a curriculum for the Center which can be approved by the TUWr Faculty Senate. Once that occurs, the Center is, in fact, an integral part of the university.

To those outside academe, this might seem like a modest accomplishment. It is a significant accomplishment at a premier Polish university with so many faculty dedicated to "pure" rather than applied research and trained under the command system when "communication" had no Polish translation, market economics was not taught, management was decidedly non-western, and "continuing education" was unknown.

During the past three years, CCSU has had the eminent good fortune to work with outstanding individuals at TUWr beginning with Rektor Wiszniewski and Professor Kremens and continuing down through the activity and subproject coordinators and the participants themselves. Like at any other university, it will take time for the younger professors we have trained to make their ways up the organizational ladder into positions of leadership and responsibility.

What happens if the individuals at the top with whom we have worked move on to other opportunities? Rektors, for example, are limited to two three-year terms, and Rektor Wiszniewski is in the first year of his second term right now. This is precisely why what Professor Kremens is doing by way of incorporating the Center into the fabric of the university is critically important.

REVISION IN THE PROJECT IMPLEMENTATION PLAN:

It is also essential to the ultimate sustainability of the Center for CCSU and TUWr professors to develop joint academic projects and to share their experiences and research with their professional colleagues. This kind of professional development activity produces better trainers/instructors both for TUWr and CCSU and also exposes them to or gives them more experience in the larger academic arena.

I will also ask Mr. French's permission to reallocate some of the savings generated by

Professor Parker teaching in Wroclaw this summer to pay the costs of TUWr Professors Czemplik, Krokosz-Krynke, Paszkowska, and Wilimowska attending the world-wide professional association of practitioners of the case study method of instruction (WACRA) in Montreal this coming June. They and their CCSU colleagues (whose expenses are paid by a U.S.I.A. affiliations grant) are major presenters at this international conference. The case method has been one of the most successful teaching strategies we have utilized in Wroclaw. It has been well-received there. Last year Mr. French approved a budget reallocation to permit Professor Krokosz-Krynke to join CCSU Professor Stoneback at this same convention in Bratislava, Slovakia, where they appeared jointly as presenters. We think their success in Bratislava merits a larger participation at the WACRA meeting this year.

In addition to the Legnica and Wroclaw I.B.S. programs, which together generated 1,650 student contact hours, two other workshops were offered under the auspices of the Center for Continuing Education.

TUWr Professor Marek Zajac presented a seminar on free market economics in Srem, Poznan district, February 11-12 and 18-19. The four day, five hours per day course enrolled fifteen participants, most of them directors and department heads in municipal government offices. Each participant received a seventy page booklet prepared by Professors Malgorzata Pawlowska and Zajac on macro- and microeconomics in the Polish language. Among others, Professor Zajac covered the following topics: production possibility curves, supply, demand, market equilibrium, market failures and government interventions, money and banking, circular flow of product and income, GDP, inflation, and unemployment. He reports that the participants were keenly interested in comparisons between national and local data.

This training program in Srem highlights an important new participant pool our Polish colleagues hope to reach. In September a new group of democratically elected local public officials will take office. These officials need to understand the market economic consequences of their political decisions. Hence, the need and the opportunity.

STUDENT CONTACT HOURS

15 participants x 20 hours = 300 s.c.h.

Professor John Parrish-Sprowl visited TUWr and UWr during February. Much of his time was devoted to master's level curriculum development work with faculty from both Wroclaw universities and on preparation of his forthcoming volume on Communication and the first volume of Organizational and Managerial Communication case studies. He also provided business counseling services at Phoenix Intermedia, a Wroclaw firm and to the Director of Housing for the City of Wroclaw, both on public relations issues. In addition, he provided a lecture to the Connecticut Club, the I.B.S. alumni association, on business consulting.

Finally, Professor Parrish-Sprowl presented a two day, eight hours per day Workshop on Conflict and Negotiation under the auspices of the Center for Continuing Education. The participants were primarily primary and high school directors and vice directors. The Workshop emphasized conflict management vs. resolution, conflict styles, strategies for conflict management, and negotiation strategies. For a case study, he selected the case of a Polish town which owned a dilapidated school building. Participants were asked to negotiate a solution to the problem of what to do with the building.

STUDENT CONTACT HOURS

Day I:
34 participants x 8 hours = 272 s.c.h.

Day II:
38 participants x 8 hours = 304 s.c.h.
GRAND TOTAL: 576 s.c.h.

[end of report]

ATTACHMENT A

TITLE OF PUBLICATION: KONKRETY

DATE OF PUBLICATION: MARCH 3, 1994

TITLE OF ARTICLE: BUSINESS IN AMERICAN STYLE

The School of Business inaugurated its activity. This is an effect of three years collaboration between the Wroclaw Technical University and the Central Connecticut State University. Representative from American University Prof. Henry S. Enck came for the grand ceremony in Legnica. The School of Business is operating in Legnica' branch of WTU. Among participants are Director of the Voivode Office, and Director of ZGM (local company).

7 ■ Rok 22 ■ Nr 1125 ■ 3 marca 1994 r. ■



Biznes po amerykańsku



Fot. WINCENTY KOŁODZIEJ
Zainaugurowana działalność Szkoła Biznesu. Jest to efekt trwającej już od trzech lat współpracy Politechniki Wrocławskiej z Central Connecticut State University. W rocznicę otwarcia przyjechał do Legnicy Henry B. Erick przedstawiciel amerykańskiej uczelni. Szkoła Biznesu działa w legnickiej filii Politechniki. Wiceprezesa są m. in. Wykładowca UW i dyrektor ZGM.

BEST AVAILABLE DOCUMENT

TITLE OF PUBLICATION: GAZETA DOLNOSLASKA

DATE OF PUBLICATION: FEBRUARY 26-27, 1994

TITLE OF ARTICLE: BUSINESS SCHOOL

PAGE ON WHICH ARTICLE APPEARED: 1

Yesterday the School of Business was inaugurated in branch of WTU in Legnica. Among participants are many directors, government and municipality administration employees.

The School was organized by the Wroclaw Technical University and the Central Connecticut State University from USA. Classes will be held once a month, at cost of eleven million zl. After thesis participants will receive diplomas with the stamps from both universities - Polish and American. Lectures are taught in Polish.

Gazeta

DOLNOŚLĄSKA

JELEŃ GÓRA
LEGNICA
WAŁBRZYCH
WROCŁAW

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Redaktor, prowadzący
Marek Rybak

Bezpłatny dodatek
do „Gazety Wyborczej”
Nakład 61 tys.

Dziś „Gazeta o Prac

Szkoła biznesu

W legnickiej filii Politechniki Wrocławskiej rozpoczęła swoją działalność Szkoła Biznesu. Wśród słuchaczy jest wielu dyktorów, pracowników administracji rządowej i samorządowej.

Szkołę zorganizowały Politechnika Wroclawska i Central Connecticut State University w USA. Zajęcia odbywać się będą raz w miesiącu, kosztują 11 mln złotych. Po napisaniu pracy dyplomowej słuchacze otrzymają dyplomy z pieczęciami obu uczelni - polskiej i amerykańskiej. Wykłady prowadzone są w języku polskim.

BEST AVAILABLE DOCUMENT

TITLE OF PUBLICATION: GAZETA LEGNICKA

DATE OF PUBLICATION: FEBRUARY 28, 1994

TITLE OF ARTICLE: INAUGURATION IN BUSINESS SCHOOL

An nine month session organized by the School of Business have started on Friday at WTU branch in Legnica. The School is working already more than three years with the Central Connecticut State University and the Wroclaw Technical University.

Classes will be in form of lectures, discussions, games and computer exercises. During classes participants will learn about problems associated with firm management in free market, and also methods and techniques that help to solve managerial tasks. Fee for participation is eleven million zloty.

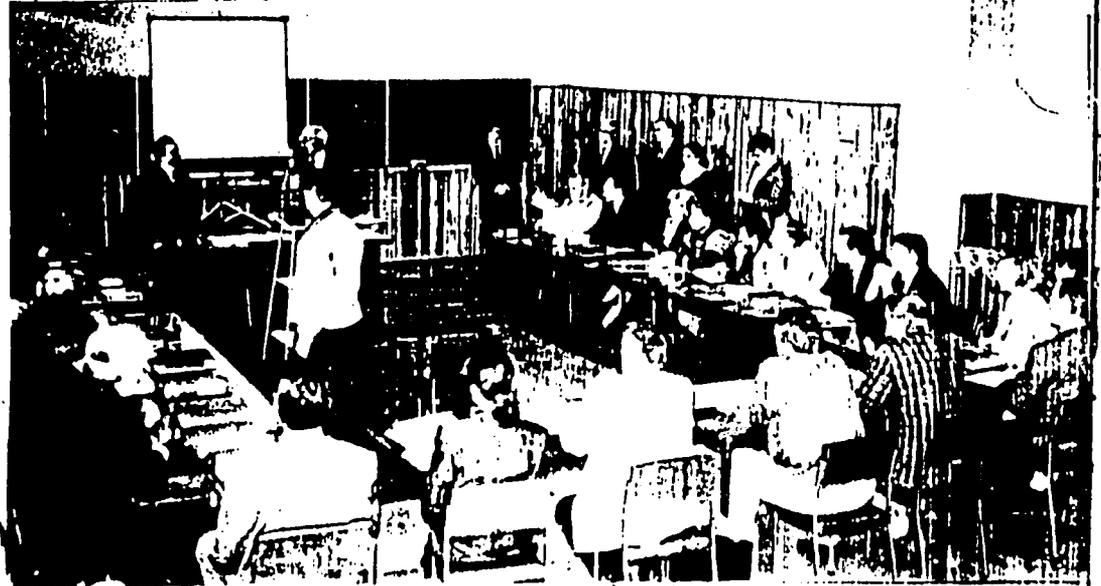
In the School of Business participate among others Vice President of Legnica, Director of ZGM (local company), counsellors and Director of Voivode Office.

GAZETA LEGNICKA

25.02.94r. *Sobota* LEGNICA I OKOŁO

28.02.94r.

INAUGURACJA W SZKOLE BIZNESU



W piątek na filii Politechniki Wrocławskiej w Legnicy rozpoczął się dziewięćmiesięczny kurs zorganizowany przez Szkołę Biznesu. Szkoła ta, od przeszło trzech lat, współpracuje z Central Connecticut State University i Politechniką Wrocławską.

Zajęcia w szkole będą prowadzone w formie wykładów, dyskusji, gier oraz ćwiczeń komputerowych. Podczas nich uczestnicy zapoznają się z problemami zarządzania firmami w warunkach wolnego rynku oraz z metodami i technikami rozwiązywania zadań menadżerskich. Opłata za uczestnictwo w zajęciach wynosi 11 mln zł.

Do Szkoły Biznesu zapisał się m. in. wiceprezydent Legnicy, dyrektor ZGM, radca i dyrektor Urzędu Wojewódzkiego.

Fot. G. Spola

GAZETA LEGNICKA

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ATTACHMENT B

BEST AVAILABLE DOCUMENT

CENTER FOR CONTINUING EDUCATION
AT THE WROCLAW TECHNICAL UNIVERSITY

50-370 Wroclaw, Wybrzeze Wyspianskiego 27, fax. 223664, tel.20 22 32

SCHOOL OF BUSINESS
IN WROCLAW AND LEGNICA

PROGRAM AFFAIRS (Zofia Krokosz -Krynke)

1. Schedule for all sessions.
2. Detailed program for each session.
3. Finding substitute teachers for the regular lecturers.
4. Coordination with teachers on how to lead courses, range and the merits.
5. Delivery of materials for participants at least a week before each session.
6. Information about equipment needed for each day of classes at least one week before session.
7. Cost calculation for teachers fee.
8. Work out (by 01/10/94) a master qualification sheet for candidates for IBS.
9. Participation in interview with candidates.
10. Work out a master participant inquiry form.

ORGANIZATIONAL AFFAIRS (ZOFIA WILIMOWSKA, PH.D.)

1. Detailed cost calculation for each activity.
2. Promotion (poster, bulletin, print with detailed information).
3. Organization of enrolment (send out qualification sheets, deposit forms, information about interview, about class schedule and sessions).
4. Information for participants about current affairs connected with the School of Business (changes in classes or session schedules, information about library, about graduation etc.)
5. Auditorium and room reservation, make sure about equipment and necessary materials for classes (extra bulbs for projectors, paper for copy machines, markers).
6. Organization of meals during break, and coffee with cookies during classes.
7. Delivery of materials for participants at the beginning of each session.
8. Preparation of diplomas for graduation.
9. Preparation of promotional materials for each participant for first session (files, name tags).
10. work out responsibilities for Legnica coordinator and his range of activity.

Organizational cooperation: Barbara Paplinska, tel. 202232 (WROCLAW)
Janusz Matuszewski, tel. 23791 (LEGNICA)

Wroclaw December 30, 93

Center coordinator
Andrzej Czemplik, Ph.D.

20

advertising from the newspaper Gazeta Wyborcza - Dolnoslaska, January 14-15, 1994.

Center for Continuing Education
at the Wroclaw Technical University

announce that registration to the School of Business
that lead classes in Polish
in Wroclaw and Legnica

will start the fourth edition on February 18, 1994

The School was established
by Central Connecticut State University, USA
and the Wroclaw Technical University

Program contain nine three-day sessions
(Fri., Sat., Sun.) once a month

Cost per participant: 11 million zl.

Candidates are asked to pick up qualification forms
on January 17 - 21, 94.

in Wroclaw: room 163, administration building of WTU
Wybrzeze Wyspianskiego 27, tel. 20 22 32

in Legnica: room 211, ul. Batorego 8, tel. 237 91

Qualification forms needs to be returned by February 1, 94.

Potential participants will receive written information about interview.

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CENTER FOR CONTINUING EDUCATION
OF THE WROCLAW TECHNICAL UNIVERSITY
SCHOOL OF BUSINESS

Dear Colleagues!

I have the pleasure to communicate, that on February 18, 1994 we will start the fourth edition of the School of Business, that was established by the Central Connecticut State University, USA, and the Wroclaw Technical University.

Program contain nine three-day sessions (Friday, Saturday, Sunday), once a month:

Detailed schedule and topics are enclosed.

Cost for participant - 11 millions zl.

If you are interested in sending your employees to the School, we hereby ask to fill an application card, and send it to us as soon as possible (letter, fax or deliver). All candidates will be asked to fill out qualification questionnaire.

Questionnaire has to be returned by February 1st, 94

- in Wroclaw: room 163, Administration building of WTU
Wybrzeze Wyspianskiego 27, tel. 20 22 32, fax. 22 36 04

- in Legnica: room 211, Ul. Batorego 8, tel. 237 91

We kindly ask to put the information poster on your bill-board.

Wroclaw, January 15, 1994

Sincerely

Center coordinator
Andrzej Czemplik, Ph.D.

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12

PROGRAM FOR CONTINUING EDUCATION AT THE WROCLAW TECHNICAL UNIVERSITY

Grant sponsored by American Agency for International Development
School of Business in Wroclaw and Legnica. Classes taught in Polish.

We inform, that classes at the School of Business will start on February 18, 1994. The School of Business is a result of three year collaboration between the Central Connecticut State University and the Wroclaw Technical University.

The present edition is sponsored by American Agency for International Development.

Classes will be held in three day sessions (Friday, Saturday, Sunday) once a month. There will be nine sessions. Each session will present one subject.

Address:

Wybrzeze Wyspianskiego 27
50-370 Wroclaw
tel. 20 22 23
fax. 22 36 64

Purpose of the School
the purpose of training is to instruct participants with management problems in free market economy, and introduce methods and techniques to solve managerial problems.

Recipients
Program of the School is addressed for middle and high level managers, and for candidates for managers.

PROGRAM SCHEDULE

1. Session I
18, 19, 20 February, 94.
Introduction to free market economy.

Problems in present business world, manager role, principles in free market economy - supply, demand, equilibrium market, and price.

2. Session II
18, 19, 20 March, 94.
Managerial accounting.

Range and role of accounting, characteristics of accounts, function of balance-sheet, files, settlement of accounts, cost calculation, profit-and-loss account, cash flow.

3. Session III
15, 16, 17 April, 94.
Finance concepts for managers.

Value of money in time, risk and rate of return, capital cost, capital market, type of assets, assets estimation, cash flow, finance rules in decision making.

4. Session IV

27, 28, 29 May, 94.

Management in complex organization.

Manager and organization. Modern managers problems: skills, planning and control, form of organization, choice of organization structure.

5. Session V

Managing people

Manager and decision making. Assets and liabilities, problem solving by a group, essence of conflict, strategy of problem solving, work motivation, conditions of managerial success - behavior, situations and personalities.

6. Session VI

30 September, and 1, 2 October, 94.

Marketing

Marketing definitions, environmental analysis and marketing research, market segmentation, product cycle, price settlement, distribution, promotion.

7. Session VII

21, 22, 23 October, 94.

Consumer behavior and sales.

Typical consumer behavior, type of advertisement, type of sales.

8. Session VIII

Communication in Organization and Management.

Conflict, negotiation, public relation, publicity, managerial communication skills - presentation, leading meetings, oral and writing expressions.

9. Session IX

9, 10, 11 December, 94.

Strategic management.

Essence of strategic management, mission, purpose and objectives of a firm, alternative strategies, valuation and choice of alternative, strategic implementation, strategic planning, role and purpose of business plan.

All classes start at 8 A.M., and end at 5:15 P.M.
During a day will be an one hour break for dinner.
One session remain 30 hours, and the whole program - 270 hours.
Cost for participant is 11 millions z1. The cost include 27 dinners for
each participants.

Classes will be teach in a form of lecture, discussion, case study
analysis, and computer exercises.
Participants will receive a diploma of School of Business. To receive the
diploma participants have to be active in class, and return the final
paper.

Classes in Wroclaw will have place in Administration Building of WTU, room
144, and in computer lab.

Classes in Legnica will take place in building of WTU. Session terms for
School in Legnica will be a week later than in Wroclaw. The program in
Legnica is identical to the one in Wroclaw.

BEST AVAILABLE DOCUMENT

Center for Continuing Education
the Wroclaw Technical University
ul. Wyspianskiego 27
50 - 370 Wroclaw
tel. 20 22 32

BUSINESS SCHOOL

APPLICATION

I notify that.....employees will participate in the Business School program.

First and last name	education	position	age	signature
1.				
2.				
3.				
4.				
5.				

Payment: cash, check, transfer

Director signature

Pick up application in room 163, Administration Building of the Wroclaw Technical University, and return by February 1, 1994. Classes will start on February 18, 1994.

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CENTER FOR CONTINUING EDUCATION AT THE WROCLAW TECHNICAL UNIVERSITY
QUALIFICATION QUESTIONNAIRE
SCHOOL OF BUSINESS

PERSONAL DATA

First and last name.....
 Date of Birth
 Work address
 Address for correspondence

 Phone

EDUCATION

Diploma, year
 Study (college, major)
 Languages
 English.....Russian.....
 German.....Others.....
 French.....
 Training and practice abroad (where?, when? as who?)

Knowledge in computer science

Orga.

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Wroclaw L

27

ATTACHMENT C

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Plan sesji Statystyczna Kontrola Procesu (SPC)
Prowadzący: prof. Paul Resetarits

24 luty

9.00 - 12.00

Definicje jakości

Wprowadzenie do SPC jako narzędzia zapewnienia jakości

Przegląd metod statystycznych

13.00 - 16.00

Histogramy

Krzywa rozkładu normalnego

Zmienność procesu

25 luty

9.00 - 12.00

Zbieranie danych

Niestabilność narzędzi pomiarowych

13.00 - 16.00

Karty kontrolne

Karty X i R

Karty X dla indywidualnych pomiarów i ruchomego rozstępu R

Karty kontrolne dla mediany

26 luty

9.00 - 12.00

Obliczanie granic kontrolnych

Interpretowanie kart kontrolnych

13.00 - 16.00

Zdolność procesu

Obliczanie wskaźników zdolności procesu Cp i Cpk

27 luty

9.00 - 12.00

Karty kontrolne dla atrybutów

Karty p, karty np, karty c, karty u

13.00 - 16.00

Techniki rozwiązywania problemów

Analiza Pareto

Schemat procesu technologicznego

Diagram przyczynowo skutkowy

Diagram korelacji (rozrzutu)

Decydującymi czynnikami konkurowania na rynku są: dotrzymanie terminu, cena i jakość, przy czym jakość wśród tej trójki zdobyła sobie w ostatnich latach centralną pozycję. Jakość produktów decyduje coraz częściej w sposób jednoznaczny o sukcesie przedsiębiorstwa. Kontrola produktu finalnego nie daje w tym zakresie dużych efektów. Musi się ona odbywać wcześniej, w trakcie procesu produkcyjnego, przyjmując raczej formę sterowania procesem. Wdrożenie tej idei jest bardzo znaczącym przedsięwzięciem organizacyjnym, którego zakres jest określony w normach ISO serii 9000. Innej jednak drogi, aby przetrwać na rynku, nie ma.

Po sukcesach Japonii, stosunkowo wcześniej (wcześniej niż w Europie) zdano sobie z tego sprawę właśnie w USA. Dlatego Politechnika Wroclawska wraz z amerykańskim uniwersytetem Central Connecticut State University proponują państwu wzięcie udziału w cyklu kursów dotyczących jakości.

Celem poszczególnych kursów jest ukazanie metod, technik, systemów oraz organizacyjnych zmian służących zapewnieniu jakości produktów.

Kursy przeznaczone są dla kadry kierowniczej przedsiębiorstw przemysłowych, w szczególności menedżerów od spraw jakości.

Dr inż. Tomasz Koch
Instytut Technologii Maszyn i Automatykacji
Politechniki Wroclawskiej

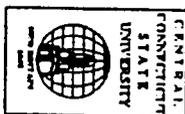


JAKOŚCI

Wrocław 1994

organizują cykl szkoleń na temat

Politechnika Wroclawska, Instytut Technologii Maszyn i Automatykacji
oraz Central Connecticut State University



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29

Plan sesji Zarządzanie jakością zgodnie z ideą Total Quality Management oraz ISO 9000

Prowadzący: prof. Andrew Baron

24 marca

9.00 - 12.00 Strategia TQM/TQL

Wprowadzenie

Omówienie kursu

Definicja TQM/TQL

Jakość na poziomie światowym - korzyści

Fakty i ilustracje z Forda i innych firm

Historia

Koszty niskiego poziomu jakości - czynny udział uczestników

Zorientowanie na klienta - filmy

13.00 - 16.00 Podstawowe elementy TQM

Nowoczesne systemy zarządzania - zaangażowanie

kierownictwa

Zmiany kulturowe - filmy, czynny udział uczestników

Przekazanie odpowiedzialności pracownikom

Proces wprowadzania TQM

Budowanie zespołu - filmy, czynny udział uczestników

25 marzec

9.00 - 12.00 Analiza procesu, doskonalenie i zmiany

Ćwiczenia w tworzeniu zespołów

Zespoły interdyscyplinarne

Zmiana stylu zarządzania

Cel i misja przedsiębiorstwa

13.00 - 16.00 Wprowadzanie TQM/TQL

Definiowanie celu i misji przedsiębiorstwa

Burza mózgów - czynny udział uczestników

Benchmarking (porównanie z konkurentami)

Właściwie za pierwszym razem

26 marzec

9.00 - 12.00 Narzędzia i techniki TQM

Umiejętność komunikowania - film

Proces ciągłego doskonalenia - film

13.00 - 16.00 Narzędzia i techniki TQM c.d.

Techniki rozwiązywania problemów stosowane w TQM

Histogramy

Wykresy Pareto

Karty kontrolne SPC

TQM - podsumowanie

27 marzec

9.00 - 12.00 Przegląd norm ISO serii 9000

13.00 - 16.00 Przegląd norm ISO serii 9000 c.d.

Decydującymi czynnikami konkurowania na rynku są: dotrzymanie terminu, cena i jakość, przy czym jakość wśród tej trójki zdobyła sobie w ostatnich latach centralną pozycję. Jakość produktów decyduje coraz częściej w sposób jednoznaczny o sukcesie przedsiębiorstwa. Kontrola produktu finalnego nie daje w tym zakresie dużych efektów. Musi się ona odbywać wcześniej, w trakcie procesu produkcyjnego, przyjmując raczej formę sterowania procesem. Wdrożenie tej idei jest bardzo znaczącym przedsięwzięciem organizacyjnym, którego zakres jest określony w normach ISO serii 9000. Innej jednak drogi, aby przetrwać na rynku, nie ma.

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Kursy przeznaczone są dla kadry kierowniczej przedsiębiorstw przemysłowych, w szczególności menedżerów od spraw jakości.

Dr inż. Tomasz Koch
Instytut Technologii Maszyn i Automatykacji
Politechniki Wroclawskiej

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Politechnika Wroclawska, Instytut Technologii Maszyn i Automatykacji
oraz Central Connecticut State University

organizują cykl szkoleń na temat

JAKOŚCI

Wrocław 1994



30

ATTACHMENT D

TITLE OF PUBLICATION: GAZETA ROBOTNICZA

DATE OF PUBLICATION: MARCH 5, 94

TITLE OF ARTICLE: ENERGY FROM OLD TIRES

PAGE ON WHICH ARTICLE APPEARED: 9

ECOLOGY IS A CLEAN BUSINESS

Ms. Ann S. Evans gave many interviews to media, and recently to the New York Times, and also appeared in many programs about ecology on TV on CNN, ABC, NBS. She received invitation from Central Connecticut State University and the Wroclaw Technical University to teach courses in Wroclaw on Social Communication in Management. The interest in her came from being one of the international leaders protecting environment using rare weapons: modern technology and economics. Ms. Evans is an American but presently she is working in England, where she was invited by the English government to build an electric power plant, which uses non-conventional sources of energy - old, useless car tires. In Wolverhampton she established her own company, Elm Energy and Recycling Ltd., and she become the company director. Ms. Evans is taking advantage of her many years' American professional experience.

"I was an associate for many years with an institute that was engaged in tires research. We were looking for salution to neutralize these mountains of old tires, that would be safe for the environment, and with benefit for the people. The first power plant that used old tires was build in the USA ten years ago, and now we already have ten. Two are big - 30 megawatt, and eight small - 4-5 megawatt. Theses plants are small, but we have to remember there is a limited supply of the specific fuel; old tires. Part of the old tires is taken by rubbery industry."

Already one big power plant is operating in England, and soon Evans' company will build two smaller plants. The big power plant is using ten million tires annually, and gives 30 megawatt power, and this is enough to supply electricity for town with thirty thousand people. One old tire gives energy that is enough for one household for one and a half days. In general, energy contributed by the power from old tires has minimal contribution. To give better picture - in England 65 thousand megawatts is used per hour and the power plant from Wolverhampton gives only 30 megawatt. Is this a profitable undertaking? "Yes, of course" says Ms. Evans "and not only environment but also people have benefits. And of course she is getting benefits too."

Thanks to this first power plant 40 new jobs were created, and smaller plants will employ 40 people each. Any pollution created by power plant instead of going into atmosphere, will go to the market because it has a value. Tires are burned in thousand degree temperature, and created smoke is filtered. In solid form it is bought by Michellin, and use for production of new tires. Zinc is never burned. The power plant in Worthampton carefully filters zinc, and oxide received this way is sold.

"The side effect of this type power plant is sulphur, causing sour rain which kills forests" says honestly Ms. Evans, but she reassures "Sulphur is not going into the atmosphere because we neutralize it with lime, and a newly created product is sold to chemical industry.

We knew that tires are not only a rubber but also steel. Also the steel is regained and we sell it a scrap-metal.

The power plant with old tires is a business, emphasized Ms. Evans. However, money she invested in the business has to be paid back to the bank. I asked if her activity for natural environment was awarded with lower rate credits?

"No" she answered "These are regular commercial credits like for any other business, but I have a contract with British government which guarantees a constant price per kilowatt for the next four years. Direct subsidies are given to the power networks which buy the power from me. The present cost of producing one kilowatt in my power plant is a little more expensive than in others. The contract was, however, encouraging to invest in England. The cost for British tax-payers is two pennies annually. This is not an outrageous input to save the environment.

After four years the power plant that use old tiers will be treated as others power suppliers. Ms. Evans assure that this is a very good profitable business.

We are only a few people are willing to follow her? "This business has some risk" she says "It is difficult to arrange team-work between tire collection and power plant operation."

Not only tire operating power plants have constant prices per kilowatt in England, but also power plants that use leftover from chickens. These power plants were imported from the United States.

Representatives of the British government visited American power plants that use non-conventional sources of fuel, and summarize it shortly: "Everything can be use as a fuel except pigs' squeak and chickens' cackle."

Ekologia to czysty biznes!

Pani Anne & Evans Dzieńka prasie wielu wywiadów ostatnio amerykańskiemu dziennikowi New York Times i wystąpiła w wielu programach telewizyjnych takich jak CNN, ABC i NBC poświęconych ekologii. Na zaproszenie amerykańskiego Uniwersytetu stanu Connecticut oraz techniki Wisc.

Opłanne w temperaturze tysiąc stopni, a powstały dym jest filtrowany. W postaci stałej kupuje go firma Michelin do produkcji opon. Cynk nie opada się nigdy. W elektrowni w Wolverhampton jest starannie odfiltrowywany, a uzyskany tą drogą tlenek i spręda-

Prąd

lądzie przyjechała tu na wykład na temat koniunkcji i społecznej w tym dziedzinie. Zanim zaczęła swoje i słowa, powiedziała, pani Evans miała być należą do wielkiej międzynarodowej organizacji nauki i sztuki, sfidowiska, używa rzadkiej w tej walce brom: nowo-technologicznej technologii i ekonomii. Pani Evans jest Amerykanką, nie teraz pracuje w Wielkiej Brytanii, zaproszona przez rząd tego kraju. Była wybitną inżynierką i budowniczą elektrowni wyko-

Produktów laboratoryjnej elektrowni są także wszelkie sterylizacji przy-trych doświadczeń mikroorganizmów - wyznaje szersze pani Evans, ale uspoka-ja: - Stierka nie przelotuje się do atmosfery, bo my ją neutralizujemy wapnem i powstały produkt kupują od nas zakłady chemiczne.

Wielomno także, że opona to nie sama guma, lecz także stal użyta do uzbrojenia. Otrzymuje się ją odzyskujemy i sprzedajemy jako staliwo.

ze

Elektrownia na stare opony jest biznesem, podkreśla pani Evans. Zainwestowałam pieniądze, które muszę teraz bankom spłacać. Pytam więc, czy to jest działalność na rzecz ochrony środowiska i obywateli uprzywilejowaną jakimś atrakcyjnymi fałszywymi kredytami? Nie - odpowiada. To jest normalne komercyjne kredyty jak na każdy inny biznes. Z rządem brytyjskim zawarłam jednak kon-

starych

nie te góry zbednych opon, bezpiecznie dla środowiska i z pozytywnym dla ludzi. Wyznaje. Pierwszą elektrownia spalająca stare opony powstała w Ameryce 10 lat temu i obecnie pracuje ich dziesięć. Dwie duże, po 30 megawatów i osiem małych po 4-5 megawatów. Są to

frakt, który ma gwarantuje przez cztery lata stałą cenę za kilowat. Bezpośrednio dołowane są siły energetycznie kłupujące ten prąd ode mnie. Obecnie koszt wytworzenia kilowata w naszej elektrowni jest nieco droższy niż w przypadku innych źródeł energii.

opon

Wielkiej Brytanii pracuje już pierwsza taka elektrownia dużej mocy, a wkrótce firma pani Evans wybuduje dwie mniejsze. Elektrownia duża zużywa rocznie 10 mln opon i daje moc rzędu 30 megawatów, co wynalrca na zapotrzebowanie w prąd trzydziestotyśięczonego miasta. Jedna marka opona daje tyle energii, ile potrzebuje przeciętne gospodarstwo domowe przez półtora dnia. W tym samym czasie energia prąd ze starych opon ma więc udzielił trzynastu. By przybliżyć proporcje: w Wielkiej Brytanii żyje 20 mln ludzi, potrzebują 100 godzin, a elektrownia w Wolverhampton daje zaledwie 30 megawatów. Czy jest to więc ekologiczne przedsięwzięcie? Ale tak. Jest towa odpadami z gumy i opon. Jest to także sposób na wykorzystanie tego rodzaju odpadów. W Wielkiej Brytanii jest 100 milionów opon, które są wyrzucane. Wiele z nich jest spalanych w atmosferze - trafiają na rynek, mają

Umowa ta była jednak sachteta do inwestowania w Wielkiej Brytanii. Brytyjskiego podmiotu kosztuje to znacznie więcej niż w USA. Nie jest to wygórowany wkład w ochronę środowiska.

Ody upłynęła jedna elektrownia na stare opony będzie traktowana tak jak inna dostawcy prądu. Pani Evans zapewnia, że jest to bardzo dobry interes przynoszący profity ze zbierania starych opon, sprzętów energetycznych, staliwo oraz związków staliwo i cynku.

Dlaczego więc tak niewiele ludzi ma święcie skłonnych jest podobać za jej przykładem? Ten biznes jest obciążony dość dużymi ryzykami - przyznaje. - Dodał trudno jest znaleźć stałego odbiorcę prądu elektrowni.

Oprócz elektrowni na opony, z przywilejów sprzedawcy kilowata po stałej cenie korzystają w Wielkiej Brytanii także przedsiębiorstwa i kurtyki, przedsiębiorstwa na przedzie z tych państw. Elektrownie te zostały zamontowane w USA.

Wydawać się może, że elektrownie, absorbujące naturalne i sztuczne źródła energii podsumowane kroch: W rzeczywistości można było do wykorzystania prądu z wyjątkiem jednego rodzaju i kurtyki przelotowa.

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