



CEI Training Manual No. 1

for

Senior Management

14 Case Studies

Important Technology Learned on the U.S.
Slavutych Information Technology Study Tour

Center for Economic Initiatives (CEI)

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Terms

CRM Customer Resource Management

ERP Enterprise Resource Planning

IT Information Technology

SCM Supply Chain Management

SRM Supplier Relationship Management

UAH Ukrainian Hryvna (currency approximately 5.3 hryvna/US\$)

U.S. Host Companies

i2 Technology, Rosemont, IL

Systegration, Glenview, IL.

A-Tack Inc., Solon, OH

Impac Technology, West Chester, PA

SAP America Inc., Newtown Square, PA

DSA, Pennsauken, NJ

DynCorp, Reston, VA

Barcode Industrial Systems Inc. (BIS), Cincinnati, OH

CINCOM, Cincinnati, OH

ACCU-MED, Milford, OH

Important Technology Learned on the U.S. Slavutych Information Technology Study Tour

October 20, 2001

Introduction

At the completion of the Slavutych Information Technology (IT) study tour to the U.S., the Center for Economic Initiatives (CEI) conducted conferences with each of the participants to discuss the U.S. company visitation program and to access the technology learned by the participants. It was anticipated that there would be few benefits to the Slavutych firms in marketing, but benefits in management and technology were expected. The tour concentrated on database and Internet applications.

The results indicate that dramatic improvements for Slavutych and the Chernobyl facilities can be achieved in the IT field. In summary, the improvements learned for application in Slavutych include:

1. There was great interest in the document management system at the Cincom company. It is extremely timely for the Chernobyl Nuclear Power Plant (ChNPP) since the staff processes a wide range of instructions, letters, correspondence, and memos which are widely circulated and the volume of that documentation will be growing. With a document management system they could reduce time expenditures literally by hundreds of hours.
2. Using techniques learned at Cincom there can be large cost reductions, particularly in paper savings. Presently paper supplies are imported and they are very expensive.
3. At DynCorp they saw a wearable computer. They are able to use this equipment right now. By utilizing this type of computer they will be able to perform repairs with fewer errors, more quickly, and with better quality. This will reduce the time necessary for repairs and reduce down time which will result in huge savings for the ChNPP plant. The operators and all other personnel will also be exposed to less radiation. They had hoped to go home with at least one set of this equipment for the Shelter implementation plan.
4. Before coming here the tour members did not really think that bar codes had a lot of potential but they have since learned that the use of bar codes is most promising. In the U.S. the participants changed their minds. The tour members agreed that bar code technologies can be used for storing radioactive waste because many types of radioactive waste are just lying around and get stolen and show up in different areas of Ukraine; sometimes even in Russia. At present there is no tracking provided and no labeling to ensure proper tracking; this could be corrected by using bar codes.
5. The tour group observed the "Knowledge Management" concept at the DSA company. The concept of creating a single unified information database for the town of Slavutych became a new idea. They could create one unified information database for Slavutych town to provide complete business and personnel information.
6. Another idea conceived during the tour is to collect all the medical data for the Slavutych residents and survivors of the Chernobyl disaster. They will categorize them into first, second, and third categories since there are many cases of disease among children. This information, contained in a one system, can also be shared with the human services provider organizations.
7. They learned that it is necessary to develop systems with the customer needs in mind and not necessarily information dictated by management.
8. One Slavutych company negotiated to become a dealer for U.S. software, but negotiations were not concluded, partially due to U.S. government guidelines.

9. One firm plans to set up a Commercial Data Center for business data storage with 30 servers.

Finally, all members were impressed by the way the U.S. firms treated their employees. This included the work environment, continuous training programs, and the attitudes of management towards workers.

Case 1: Business Development Agency, Business Planning

Company profile

The Slavutich Business Development Agency provides the following consulting services:

- Development and examination of business plans, projects, and proposals; creation of financial models of the enterprises;
- Analysis of investment projects and tender offers;
- Conducting market research and the search for partners;
- Conducting training with the use of the modern techniques in the field of management, marketing, finances, professional sales, business communication, project management, and organization of presentations;
- Preparation of presentations, developing and printing brochures and advertising booklets;
- Organization of advertising in the local mass media (TV, Press, radio).

Larysa Nikitenko presentation

My general assessment is that the study tour was great and by means of it I realized that in our country the future belongs to information technologies.

We visited 10 companies, big and small. I noted that all the U.S. companies paid considerable attention to the marketing function.

I liked the strategy U.S. firms are using, coming from outside (the consumer) to inside (the management) because basically companies study the market, they learn about the trends, and then develop a product which they try to sell in the market later. We in Ukraine do it in a backward way. Basically we do not study the conditions of the market, we do not conduct surveys, etc., and the result is that our products often do not bring any profits. In the U.S., the entire marketing and product development system has been organized very smoothly and accurately and I like the way it is structured.

I would also like to note that all U.S. companies pay close attention to public relations and to promoting their products. The level of their product presentation is very high. I was very pleased to see how they attract customers in the marketplace. I was also impressed with the way they work with their dealers, enabling the dealers to sell their products. The company provides maintenance service to new customers, which is obviously an additional revenue source.

I was primarily interested in the U.S. marketing function. I am not an IT expert. I was really surprised to see how highly developed marketing is in all the companies we visited. That is something I have always told my students at the training sessions we provide. The most important thing is to satisfy our customer. The most important thing for us is the customer and his or her requirements. Here in the U.S. I saw this marketing function operating at a very high level, very customer directed, which usually results in more revenue for the company.

I was happy to see that American firms pay due attention to public relations, that PR is functioning well, that PR is different from advertising, that PR places information in mass media about the company, about its results, and its achievements. I like the idea that companies establish contacts with journalists. I like the concept that if there is no news we have to create news. Companies have to show their policy where specific issues are concerned. That is something I am going to use, to transfer completely, 100%, to what we are doing in our company in Slavutych.

For us, PR costs us practically nothing so our expenses are at a minimum, but the benefits from that can be very big.

One thing I realized here in the U.S. was that in all levels of the company, the various levels of management are prepared for the introduction of information technology solutions. I

prepare training sessions for managers of companies. My main objective is to provide appropriate documentation for them and persuade them that Information Technology is good, and is important. I saw that here in America. All the operations of companies are related and connected with IT. This includes electronic tracking and planning of sales, electronic tracking of resources, warehouses, and planning of production. Firms use electronic orders extensively so they do not manufacture anything unless there is a specific order that comes through the electronic systems. They do not manufacturing anything without a purpose in mind. So everything here is connected or linked in a harmonious way. One thing we saw at the i2 company in Chicago was that the company got rid of one of the links in the chain. They got rid of one of the distributors.

In Ukraine we have many companies that invest large sums of money in production and waste a lot of money in redundant inventory which makes their operations unprofitable. Our tour group is going to prepare articles about our company visits in America. In Ukraine we have good connections with journalists all over the country. We have all kinds of press coming to our town. I am going to disseminate this information not only in Slavutych but also all over Ukraine where I conduct my training programs. I am going to provide materials in different formats during my training sessions, during my mini-lectures and seminars. Furthermore, I am going to talk about the results that can be achieved by implementing these IT solutions. That sounds like a wonderful idea.

I was making comparisons and I saw that we do not have electronic tracking of inventory in our country. That is why so many companies have redundant stock in their warehouses and so many companies manufacture goods that are not saleable or useable. We do have access to the Internet but our Internet is, as a rule, of poor quality and the cost is prohibitive for a start-up company. Unfortunately, a lot of our top managers have tunnel vision and they don't see the benefits of IT solutions. Those are the issues I am going to talk about.

I conduct a seminar in business planning in which I teach the different stages of operation of a company - the whole cycle. Now I am going to incorporate in my courses a whole new block or scenario script of IT solutions for inventory tracking and I will also incorporate material about ERP.

The Impac Technology company that we visited was a good example of a small company. They had about 25 employees and I liked the account of their evolution as a company which they shared with us. They started making cardboard packaging and they ended up developing software products and leasing those software products. We were able to trace their evolution as a firm which started with the simplest products and they were able to achieve success through their market orientation.

In Slavutych we are targeting assistance for the development of small and medium sized business and for me the experience at Impact was a wonderful example of a company that repositioned itself and achieved very good results both technologically and intellectually.

On the tour I was also impressed with the constant on-going training that is provided for the employees of the companies that we visited. Unfortunately that does not happen to such an extent in our country. I would like to note that in my agency, the Business Development Agency, the situation is different because of our General Manager. Our General Manager understands the importance of on-going training for us and she pays for our participation in training sessions because she understands that we all work in a very competitive market and if we do not know more than our competitors, nobody is going to pay us for our services. She understands that. But talking to other members of our study tour group, and knowing the company situation in our town, I understand that our type of training is not provided at other companies because top managers are not willing to invest money in developing their personnel.

They are willing to spend money on training themselves to improve their qualifications but not on their subordinates and I believe that is a huge mistake. A company cannot really move ahead because of the knowledge or experience of one person. Only the experience of all people at a company will give it a competitive edge in the competitive market.

Another thing I would like to point out is that everything I have seen in America is useful. I have not seen anything that cannot be applied in our country. Everything is applicable, everything can be applied, everything is also necessary. However, the most important priority is to change the mentality of our leaders both at the top echelon and the mid level managers. Because everything we have learned in the U.S. is realizable, everything is possible, everything can be implemented. For example, we cannot buy expensive software solutions but we do have our programmers in Ukraine, we have our developers. They can develop software solutions themselves. I saw how this approach works here in these U.S. companies. If there is a problem, there are companies that work on a conceptual solution. They hire specialists or experts from outside, or they outsource it. So by a joint effort they are able to arrive at a software solution to a specific problem.

Another concept that impressed me was that some U.S. companies specialize in coordinating and implementing projects. I think that is a wonderful concept and DynCorp is one example of that. They have what they call an optimum scheme. By using outside people who provide control and monitoring they rule out producing low quality or inferior products. Because sometimes we basically stew in our own juice and become very narrow minded and do not notice our own mistakes or weak points. So it is very important for somebody with a fresh position or a fresh eye to look at what we are doing and propose solutions. I saw how organically and cohesively linked all those different stages are. That is something we can easily implement in our country.

With reference to our visit to the ACCU-MED company, I would like to note that everything we heard can be incorporated in our country because we have a lot of chaos in our health care system. I am not speaking about one specific area such as nursing homes but about health care in general. What happens a lot of times is that doctors lose patient histories, or record cards and it is not possible to track the medical history of that particular person.

Again, every company visited provided something of importance or significance we can use.

I was very favorably impressed with Informational Technologies and I know now the next improvement step we will have to take. As you know, the city of Slavutych has been declared a special economic zone that provides tax incentives for a number of companies that are involved in manufacturing operations in the town of Slavutych. We consider our town a zone of attractive economic investment. Until recently the top priority for the town was industrial manufacturing. I think this priority is erroneous because at our Chernobyl Nuclear Power Plant the people who work there have high technical qualifications and the people who have worked there for extended periods of time and who now have established a high level of intellectual work expertise should not really go and start making slippers. Unfortunately that is the predominant philosophy in our town and I think that our Business Development Agency should come up with a program to make IT technologies the top priority and to provide a green light for developing those information technologies. The more IT companies we have in Slavutych, the greater the possibility the Chernobyl Power Plant will stay in town and the more opportunities people will have to remain.

I work at the Business Development Agency with the group that is responsible not only for business planning but also for investments. Our objective is to attract investors to our town and also to assist present companies in our town that are looking for investors. I believe we

should create a database connected to the Internet with information about possible investment projects so that those who are interested and have money to invest will be able to get into the system and find out if we have any projects which may be of interest to them.

America, as an idea, is a real Klondike for us because the problem in Ukraine is that new ideas are not implemented and innovations were not really welcomed or encouraged until recently. However, a favorable factor is the attitude of managers to their employees. They are trying to encourage them and provide incentives all the time. They understand the importance of teamwork for employees and with the accumulation of experience to stay in the company. They understand that to achieve results they will need to provide incentives to individual employees and to work groups. If a group achieves positive results, then the employees involved will be encouraged – and visa versa. So both individual performance and teamwork are encouraged. Also, employees are a top priority for the managers because managers understand that everything depends on the performance of their employees and they will do everything to provide incentives and develop their personnel.

Case 2: Chernobyl Nuclear Power Plant (ChNPP), Sarcophagus Unit, Public Relations

Company profile

In 1986 the “Sarcophagus” unit was put into operation. In 1998 the Sarcophagus International Program (SIP) began. The aim of the program was to transform the “Sarcophagus” (Block 4) into an ecologically safe unit. The main goal of the SIP Program is to protect personnel, population and the environment from the potential danger of leaking nuclear and radio-active materials. Ultimately, the project aims to isolate, remove, and render harmless all contaminants.

According to Ukrainian legislation, the enterprise is obliged to inform the public about all activities conducted at nuclear units which may influence health and environment. This department, when created, plans to use IT to disseminate information to the public.

Valentyna Odyntytsya presentation

There was one thing that made me a little disappointed. We didn't visit any government funded agencies. I work at a government agency and we have visited only private companies and their objectives are pretty clear. They are supposed to reduce their costs and increase their profits. Our agency is funded from the government budget. We are completely non-profit. Our objective is to spend money. So that is a difference in our approach to information technology.

With respect to the inventory at our Shelter implementation project, we have stock costing millions of Hryvnas which has been ordered at different times and we have no idea where that inventory is stored. We take inventory periodically and we send letters and requests for inventory accounting to different units and departments of the company. Sometime they provide information. Sometime we have to order substitute items and as a result there is redundancy or duplication within those orders. So we have a real problem with stock taking and accounting for the inventory. I am not sure we will be able to purchase any of the computer solutions we learned here because everything in the U.S. is expensive. Besides, the companies don't have any specialized versions for us. But again, we learned about ideas and concepts, and hopefully our developers and programmers will be able to create something on their own.

With regard to the use of electronic archiving, obviously a major objective in Slavutykh is getting rid of paper. I would like to emphasize that at present we don't have a federal or national law that establishes electronic storage as being legal, and obviously we do have many

piles of paper work accumulating at fantastic speed. We do not have a law like you have in the U.S. concerning electronic copies.

But there is something we can do at this point even without this law. We can provide an electronic backup and start using electronic formats of versions of the documents and our work would be much faster than working with only the stored copy of the document. In this way we can provide the initial stage of electronic archiving which will enable us to advance smoothly to the next stage when the required law is passed. We have as an example using an electronic document management system in our shelter documentation plan. They use both electronic and paper copies.

I would like to mention an important item we saw at DynCorp; the wearable computer. That is a piece of equipment that we are able to use right now and if we had been able to spend more time at that company we hopefully would have been able to come back home with at least one set of this equipment. Again, we will make sure to get back to this company and request possibly one set of their wearable, portable equipment for our Shelter implementation plan. I am confident that will be of great importance for the Power Plant, for us and for CEI because that will result in a real and tangible result of this trip testifying to its benefit. Again, just using this wearable computer will be a very visible and important step in our nuclear construction efforts.

I would like to share my enthusiasm about the concept of the Knowledge Management we learned at DSA. We had a wonderful lecture there and I am going to repeat it to our leadership. We have different levels of management and not everybody is prepared for the introduction of those systems. Not everybody understands that it is not sufficient only to provide a database or provide computers. It will not work properly if the users are not ready; if the leadership and the management are not ready.

I would like to refer to a bad practice we have at our agency. It concerns our personal human resources database. Unfortunately, the computer IT people work with it and maintain it, but our personnel people have not been trained to use it and they do not really utilize it. It is a paradox that the staff personnel are not trained to use it – they are off somewhere else. The same is true for our accounting function. They have not been trained and are not using the database. All the maintenance and all the production with the computer network is done by the IT people, not by the users.

Speaking about public relations, and again I am a PR person, I realize that it is much easier for us to generate interest among the media, than for the companies we have visited here. If there is any news at our Shelter we do not need to publicize the news because the journalists and reporters come and request information from us.

I also learned from the PR perspective how important it is to maintain and enhance one's image even if you do not consider a specific individual your potential client. So image is all important here.

Personally I feel that our PR efforts are great and we have great people at our PR department in our agency. However, one thing unfortunately that we are not doing is that we never request any feedback. We never track the results of publications of reporters we invite to our events. Sometimes we might invite 40 reporters from domestic and foreign outlets and we never track their publications. We never try to see what exactly they have written. We shall start doing that.

I also noticed during the U.S. company presentations that all the presentations display the name of the author or person who created the presentation; the name is listed on the very first slide. Our system of decision making is different; our system of decision delegation is almost non-existent because always the number one person, the general manager, is responsible for everything. And during a presentation the general attitude is that presentations are kind of

anonymous. That is the way we all think and everyone is supposed to be thinking the same thing in a uniform fashion. I, as the presenter, am not responsible for anything. I am not responsible for my presentation because the ultimate responsibility lies on the shoulders of my general manager. I think that presentation should be conducted in the way I saw here. One specific person should be responsible and there should be delegation of responsibilities.

With reference to bar codes, I saw in the U.S. that bar codes are used at construction sites in the construction industry. As you know, a new sarcophagus, a new tomb, is being planned for construction at Chernobyl. There will be several large construction sites and each construction site will have its own warehouses. The entire inventory will have to meet at one given point and everything has to be coordinated. At present bar coding is not really being used in our town. The only area where it is used is retail trade but not in all grocery stores; maybe in some larger supermarkets. The whole bar code system is only now just emerging. Going back to our power plant sarcophagus construction, I believe we will have all types of problems with the tremendous scale of the operation and with the various kinds of unique components. We will have to trace where exactly they are, where they are stored, where they go. For that we will be able to use bar coding.

Twenty seven different countries are contributing funds to the nuclear construction project and there is a tight schedule. By using bar coding we will be able to reduce waste, both material and time because it is important that the project be completed by the end of 2007. If we do not meet this deadline it will be a failure of a global level. A lot of different countries and all international communities are interested in this project and even now at the design stage it is very hard to meet this deadline. It will be even harder when we start construction.

My husband has just started his own consulting company in Slavutych and I will share the information I learned on the tour with him. I hope that the information will be of benefit to him as well as to me.

Speaking about our study tour dissemination objective, we have developed a general plan to which the whole group contributed. We have lots of video footage which we are going to edit and will produce a movie to show on Slavutych television so that everybody will be able to see it. We are going to write our own text for a professional narration about our trip. We will try to show it on our own city television. We have our own channel.

1. We are also going to post information about our trip based on our report on the Maket's company web site. Maket is Oleksandr Novikov's company. Slavutych residents and people from all over the area will be able to access that information.
2. We are going to write an article in our city newspaper, again using our report as a basis.
3. Each of us is going to talk to his or her managers. For example, I am going to talk about this trip at our briefing where 40 different managers come together every week. All of us are going to share this information with our team, with our colleagues, etc.
4. Our Mayor has an enthusiastic interest about internships and study tours of this kind. He is very much in favor and encourages public hearings and those public hearings target specific audiences. For example, the Mayor might invite the business community to a meeting about this trip. So we will have all kinds of audiences to hear what we have to say.

Case 3: Chernobyl Nuclear Power Plant (ChNPP), Sarcophagus Implementation Group

Company profile

The Group was established in 1998. Its purpose is to transform the Sarcophagus into an ecologically safe system. The Plan of the Project consists of 22 goals. One of them (# 18) is to create an integrated database that houses information related to the Sarcophagus.

The Group consists of 150 specialists. They are representatives of the “client” (Chernobyl nuclear power station) and Western companies.

The information technologies department of the Group consists of 5 specialists. All of them have higher education degrees in the sphere of computer technologies. The main functions of the information technologies department are the following:

1. To create, develop and control the Group computer network.
2. To evaluate and implement technological decisions for the eighteenth goal.
3. Maintenance of the computer equipment and software.

The Group has 150 computers (IBM PC, Windows 98 operating system) and 20 networked printers. There is a Windows NT 4.0 Server and a Windows 2000 Server which power the network.

Oleksandr Zakharov presentation

My learning experiences on the study tour were very good. I was pleasantly surprised by the variety and diversity of the programs presented to us. We visited 10 companies or 12 if we count the computer stores. But given this rather small number of companies, I feel that the whole spectrum of the IT market was represented. We visited small, medium, and large sized companies.

On the practical benefits of this study tour, I can divide the application of what I learned into three categories. Let me start with the project implementation group where I am employed. At present we are developing a project which is called the integrated database of documents for the sarcophagus shelter implementation plan. And what we saw at the Cincom company, on managing document flow and generating documents, will definitely influence what we are doing.

Another new application is the electronic board meetings which were shown at the Impact company. We have our own tools to make such meetings possible but somehow the very concept had never occurred to us before. I can implement those two new technologies at my own level.00

Regarding the program of tracking construction materials that was shared with us by the Bar Code Industrial Systems company, the city would be receptive but to make it possible I will need support from the top managers of the project implementation group. I will be working on that.

There are other IT technologies that could be used in our town of Slavutych beyond those of my employer. The strongest technology product was shown by the SAP America company, especially their data center. They really impressed me, more so since I have network administrator background. In Slavutych we have the necessary infrastructure, we have cable services and we could possibly create a center where we could use network specialists who would provide services for different companies that do not have their own experts. We started discussing this idea in our group.

Alexander Novikov’s company has the potential for making this data center project possible. In the past I used to work for them and I believe there is a chance of my being involved in this project if we decide to go on with it. If this project is successful we will be able to develop further services in this area. For example, at the Impact company I learned about a new concept which is establishing an application service provider and if that actually succeeds that is a service we will also be able to provide. But at this point what we are talking about is pretty much dreams because all that is rather complicated.

When I talk about a greater database for document management I would like to say that the whole system should be involved, and not only our particular unit which is the project management group and is a small part of the overall nuclear power plant. We are just a small

division. Our group would only be providing funding for this project. In fact, the whole consortium will be providing funding. It is very hard to tackle all those projects single-handedly, but I am prepared to provide assistance from the position of our project management group and Valentyna (another tour group member) is prepared to provide assistance from the shelter implementation plan. I can tell you that Valentyna is ready to go ahead.

I think it was very helpful for me personally to see what hardware and software are used in the U.S. I was very pleased to learn that by and large our level of computer expertise is certainly not worse and is pretty much the same as in the U.S. Furthermore, our project management group is the only company in Slavutych that uses licensed software. We have a chance to pick and choose and we pay a lot of money for the software.

I am positive that something good will come out of our tour. If we start with the project management group and the IT department, I am sure that when I come back we are going to have an involved discussion and probably the result of it will be coordinating our IT policy within the group.

With respect to the results of our project management tour group, you are probably familiar with Oleksandr Novikov's idea about creating a web site and I am about 99% sure that this project will be realized and I am going to be very actively involved in it.

Our study tour was publicized by the Slavutych mass media even before we came here. I am absolutely sure that when we come back we will not only have the attention of the press but also of television.

Case 4: Chernobyl Nuclear Power Plant (ChNPP), Laboratory of Reliability

Company profile

Due to the changed tasks of the Chernobyl NPS after the shutdown of all energy units (as well as the complete restructuring of the company), the workload of the Production-Technical Department will expand significantly due to the increase in the number of documents which need to be prepared, used, filed, changed, and stored. These include instructions, programs, regulations, technical solutions, lists, etc. In order to put all documents in a classified order and to facilitate the search for required documents it is necessary to create a database of the documents and develop new methods of storing and shelving documents. Currently all work is carried out on a P-166 computer system with the use of Microsoft Word, Access, and Excel programs.

Iryna Sukhetska presentation

I was impressed with the concept of Knowledge Management we saw at the DSA company in New Jersey and I will try to adapt all the information learned to our plant and to the work I am doing. Knowledge Management is different from hardware, computers, and internet systems. It is more a conceptual system, and the underlying philosophy is that everyone should be working as a team and be ready to accept this approach including the managers and subordinates - everybody. This approach will certainly make everyone's work easier.

I was also greatly interested in the document management system we saw at the Cincom company. It is very timely for us since our company produces all types of instructions, letters, correspondence, and memos which are widely circulated. The volume of that documentation will be growing so we do need to create a database which will include the Oblast agency we report to as well as our Ministry. For example, our top managers write many letters and memos. At present, to prepare a letter, we need to call a certain department or unit first to find out the current name of the department chief. This takes a lot of time. If we had a data base then

anyone from any workstation could enter the system, find out the name of a particular person responsible for a function, and automatically generate a letter. That will reduce our time expenditure literally by dozens and dozens of hours.

In addition, we have very voluminous operational instructions at our plant. There are specific instructional chapters and paragraphs for different company functions. We could summarize this information, enter it into a database, and individual employees would be able to make their personal input there. That of course would make everybody's work much easier.

Another thing I learned on the study tour from the Impact Technologies company was their electronic board meeting system. Our firm has a wide variety of meetings and conferences, including those in my specific group. For our facility we also have board meetings of chief engineers from different plants coming to visit our plant including all kinds of specialists, so introducing an Impact Technologies system would be very productive.

Our conferences take place at a high level and our personnel at present have the necessary technical knowledge on hardware. By using this new concept we would be able to develop a software program and I believe that solution is realistic. I think we will be able to install a Knowledge Management system and I believe for us the time is ripe for that. It is time to unite all the company computer knowledge and procedures. Then it will be possible to provide the foundation on which to build a second stage and then to work on installing a Board Management System.

I am going to talk to the Director of our manufacturing and technical department who seems to be a progressive person who will be able to understand what I am going to share in terms of the new technology I learned. I believe that we should start controlling our present excessive paperwork bureaucracy by working individually with our leaders and top managers.

I also believe that implementing these new concepts will not be very expensive or difficult technically. We should remember that our plant is funded by the government and there is a specific budget for the plant. We won't be able to implement expensive solutions such as provided by SAP and other U.S. firms, but given a new approach, and given our specialists who are available, we will be able to devise something ourselves; to devise a solution and to make it work. I believe that is absolutely realistic.

In our firm at present we generate a great number of instructions, memos, and letters when we correspond with the Ministry and other agencies. Our manager is liable and responsible for the final approval of each document. Of course that takes a lot of time. But if all this information is entered into a database and documents are generated automatically, that will result in tremendous savings.

Another problem we have is that we have several archives both for old documents and new documents. They are stored in different locations. The bar code technology we learned about at one of the companies we visited will enable us to work with all documents which are not scannable. We will be able to paste labels with bar codes on old documents and we will be able to retrieve them very easily. However, we have a further problem. We have an employee who has been working at the archives for many years. When she retires and a new person comes who doesn't know the archive system, there will be a lot of confusion and chaos. But if this bar code system is first introduced then we will be able to enter this into the computer system, find the number of a bar code of a specific document, and find the shelf or container where it is located.

Furthermore, the bar code technology will help to get rid of redundant documents. At present we have deadlines by which certain documents must be destroyed. And of course, because of human factors, people sometimes forget to destroy those documents. Using the bar code system will help us reduce our paper volume. Again, this is an inexpensive solution. We

don't need the internet or anything like that. We will be able to use internal networks, and any person will be able to work with it.

I was most impressed by the cohesiveness we observed at the Cincom company. I could tell employees were all on one team, support each other, and are proud of what they are doing for their company. This approach should be introduced in our Ukrainian world.

The marketing department at Cincom is even stronger than their counterpart at the SAP company because of their Knowledge Management system, their willingness to share information, and their desire to make sure everybody knows what individual employees know. That is their strong point.

Talking about cost reduction, we can now save a lot of money, but I cannot tell you exactly how much. I know there will be in a lot of paper savings. At present our paper supplies are imported and they are very expensive. By introducing these new systems we will be able to downsize and let people go which will result in a number of cost savings since we are working on a fixed budget. Another consideration here is that we will be able to get rid of some office space which now has to be maintained and again that cost reduction will be considerable.

I am planning to make many presentations to other firms about the companies we have visited. I am also going to share with our plant employees what I have seen. This will include strong points of the U.S. companies and the potential for us to be able to capitalize on their achievements. I will talk in detail about such companies as Cincom and Bar Code Technologies and the technologies of other companies which we will be able to bring to our firm for real advantages and benefits for us. I am also going to have briefings and conferences with our general manager and our chief engineer and will be able to show them the U.S. documents we obtained that will need to be translated. I am going to do all that.

Again, I am pretty certain people from Kiev television will come to interview our tour group, but we also have our own local TV station and I am pretty sure we will be able to conduct interviews and tell our city residents about the U.S. companies we have visited. And I am certain there will be some interest in the city service departments and in the day care centers, in what we have seen here. Also we could make presentation to our business development agencies. There are many channels to disseminate what we have learned.

We have our own newspaper and I also believe there will be some interest in the Kiev newspapers in the results of our tour. The Mayor of our town is a progressive person who is well known in Kiev and enjoys great popularity there. He is very interested in this tour program. You can tell because he has sent us a message during the tour and I believe he will be also be able to promote the solutions and programs we have learned in the U.S. If we prepare materials for him he will be able to forward them to the top echelons and he will be able to promote them at even higher levels.

Case 5: Chernobyl Nuclear Power Plant (ChNPP), Reactor Department

Company profile

In the Reactor Department there is a section on transportation and production equipment. The main tasks of this section are:

1. To ensure the proper working of the equipment, which is needed for conducting transportation and production operations with new and used fuel utilized at the ChNPP;
2. To repair the transportation and production equipment;
3. To accumulate data and create a data base of repairs and defects in the equipment.

Yevgeny Byelyshev presentation

I learned that customers are a top priority for all U.S. companies based on what we observed at SAP America. In Ukraine there is still a strong tendency to go from inside management out to customers. In the U.S., firms approach from the opposite direction. As a principal, therefore, U.S. firms go from the outside in, so they proceed in making decisions based on what their customers think.

Another management approach I saw was how much U.S. companies care about their employees. I would like to note that we work at a state owned company. At present we do not use any resources for training sessions for employees on a regular basis. I believe the U.S. approach is applicable in Ukraine. It will be helpful to change the mentality and psychology of all Ukrainian managers in their attitude towards their subordinates. I believe it is very important to provide training for our managers to make sure that they take care of their employees. What happens in Ukraine is that those top directors or managers improve their qualifications and go for training themselves but they disregard the needs of their subordinates which actually results in pretty sad consequences. That does not provide incentives for the personal development growth of their employees. Again, I am not happy with our Ukrainian treatment of lower level employees.

With regard to dissemination plans to pass on what we have learned to the people in our town, our tour group had a discussion yesterday and we know that we are supposed to prepare and send a technical tour report to Kharkiv by e-mail or hard copy. But what we are going to do is to utilize Maket, a company which is owned by Alexander Novikov and we are going to put the text of our technical report on their website. We will include a photograph of each participant and will add each tour members' impressions. We are also going to promote what we have seen and learned through our Business Development Agency and encourage everyone to log on to the site and get our data and the report.

We had three video cameras in our group and it was Gennady Dobrovinsky's idea that we should pool our footage and hopefully create a combined video presentation that can be shown to everybody on Slavutych television. And knowing how energetic our mayor is, I would like to note that he is a bright example of a positive leader in our country. I am sure he will suggest that we speak on Slavutych television. Probably not everyone will speak but the group should include Larissa representing the BDA, or maybe even a small group that will be able to talk about their impressions or present the tour report.

Our Mayor used to be the First Secretary of the Communist Party Committee. In 1984 he went on an internship to Germany and what he saw there really improved him. He was able to change his managerial attitude and I would emphasize that he is a very progressive person. He has a PhD in Economics.

For the company A-Tack which we visited in Cleveland there are a lot of similar counterpart firms in our city; for example Alexander Novikov's company is similar.

Another U.S. concept that I am going to offer to my top management is to use bar code technologies for storing radioactive waste. We have many types of radioactive waste that is just lying around and gets stolen and shows up in different areas of Ukraine; sometimes even in Russia. At present there is no tracking provided and no label to ensure proper tracking. This could be corrected by using bar codes.

I would like to note that I spoke to our Mayor about this study tour in my capacity as President of the Youth Organization of the Chernobyl Nuclear Power Plant. My idea is to involve as many young people in internships of this kind to make sure that the young generation of Slavutych will be able to absorb ideas from other countries and be able to implement or use

them in Slavutych. The young people would be actually able to use the ideas learned abroad. The emphasis should be on the younger people.

In our firm at present, we have many documents that are stored on paper and furthermore, all the documentation related to the Chernobyl accident is stored on paper. We do have some items in electronic format, but these are the latest documents which were generated for the 10th and 15th anniversary of the accident. Most documents are still archived on paper. We learned that they were loaned to the company that deals with document management.

With respect to U.S. informational technology, we are familiar with this technology and have a pretty good idea about what it is all about. However, in Ukraine we have certainly not utilized it and remain underdeveloped due to lack of capital investment in this technology.

The way we first found out about U.S. Information Technology was through the Internet which is reasonably developed in our country and that is good.

The most important U.S. equipment I was impressed by was the computer they showed us at DynCorp. The equipment they are operating is very complex and very heavy. For example the height of one piece of equipment is 25 meters and the whole complex weighs 450 tons. Without powerful computer equipment we have to look through lots of blueprints when planning equipment repairs and we have to look at them in the office first and try to commit to memory all the details on the blueprints. We then go and perform work in the radioactive zone where we cannot bring those blueprints. Of course that takes a lot of time and is pretty complicated.

By utilizing this type of computer we would be able to perform repairs more quickly, with better quality and obviously the operators and all the other personnel would be exposed to less radiation.

When I return to Ukraine I will tell our top managers to contact DynCorp. We have their business cards and we will be exploring the possibility of getting their equipment tested under our conditions.

Another challenge we have is taking stock of the availability and transfers and movement of fuel. Over the years of operation of the nuclear power plant we have accumulated a number of special items such as soaking rods and protective rods and we have to know exactly where they are located. Each of them has a specific number and here we can apply the bar codes. If we could place the bar codes on the rods we would be able to scan them and enter the information into the data base. Of course then a data base has to be created. Here we see that everything is tied together: the bar code technologies, data bases, and wearable computers.

I liked visiting the Cincom company very much. I was pleased to see how proud they are of themselves and how much pride they take in their employees; that was very important for our tour members to see.

We have a lot of correspondence at our plant, including internal correspondence, and many types of documents, and memos. All of them are prepared in different formats. Basically people prepare them at their own discretion. At Cincom they showed us how a document can be generated from a protocol based on information from a phone call. Then all the necessary pieces of information could be entered and obtained from a data base. This would really make our task much easier; it would reduce the present confusion and it would also increase the turnover of the documents.

Unfortunately we will not be able to purchase an ERP system from other countries since they are very expensive. However, we have our own programmers who are qualified and they will be able to develop our own ERP system since now we have seen the techniques for creating such a system.

We will have to talk to our top managers for the allocation of funds for this system. Management will have to find money and make sure this program is funded. At this time we have resources from Western countries which will hopefully make it all possible.

I cannot estimate the exact figure for our economic effects resulting from the study tour programs, but the main impact will be implementing those new systems which will improve our employees' health and I can testify with a lot of confidence that implementing these improvements with new equipment will reduce the prevailing high radiation dosage.

My main objective will be to reduce the time necessary for repairs and reduce down time which will result in huge savings for our plant. These savings will have to be calculated by our economists.

I would like to emphasize that our top managers care about the health of our personnel. One of the criteria for evaluating general performance is the average ionized dosage per year. If we are able to reduce it by 0.1% by the use of U.S technologies we have learned on this tour, it will be a huge achievement.

Yes, I think that this capital equipment should be introduced at our plant.

Speaking about dissemination of what our study tour has learned in the U.S., I have already mentioned I am going to talk with the top managers of our plant and of course with my friends and families in other firms who cannot wait for me to come back with all my information and especially my video footage which I have been videotaping all the time.

I have a lot of friends in Kiev who are involved in Information Technology. I also have a friend who owns a large company in the construction business and we usually exchange tapes of our travels. He is going to come back in the next week to see what I videotaped here. I also have a friend who owns a computer business similar to the Russian computer company A-Tack that we visited in Cleveland and I am going to share with that friend the way A-Tack operates.

I would also like to add that within our plant I have already chosen several individuals with whom I am going to share some relevant information and I hope that will be of interest to them.

Speaking about press and media coverage, our group leader Alexander Novikov will be responsible for overall dissemination and we will be assisting him. We also contributed to the technical report of our group providing Larysa, the author, with technical information. Yesterday we reviewed the outline of our technical report; we discussed each and every company we visited and all of us contributed documentation and viewpoints. In this manner the technical report will be a collaborative effort.

I also noticed that all companies we visited spent a lot of time on personal training and development. This was something I was trying to do with our personnel. We have a medical and training center at the plant which is assigned to develop personnel and provide training programs. I am going to talk with the Center Director about what I have seen here. I am also going to talk in detail about Knowledge Management systems and I am going to present him with the compact disks given us by the DSA Company. I am sure he is going to learn a lot from that. Basically he will be able to look at America from a new perspective. He has been to the U.S. before and has participated in one training program and now he will be able to get further information from me.

We want this CEI program to continue and it would be wonderful if more groups from Slavutych would be able to participate in addition to our construction group.

I learned a lot about America in general and how they live and how we should live. I think this trip has changed me for the better.

Case 6: Informproekt

Company profile

The company was established in September 2000 to develop, sell and maintain programming products. Currently it employs 15. Its main platform is Windows NT and UNIX.

Gennady Dobrovinsky presentation

I would like to emphasize that my general assessment of the technology learned on the study tour are highly positive. I can not say that all that I saw was new in principle. I spend 10 to 20 hours per week surfing the Internet and I am familiar with many of these new technologies. I try to apply them in the work I am doing.

Before coming here I was exhausted because I had just finished a very large project on business process engineering for large corporations. I felt so wiped out that I contemplated resigning what I was doing and had plans to start some new type of educational program, maybe lecturing. However, during the study tour I really got energized and I now am filled with a desire to organize a program in technology information for large corporations.

As a result of my tour I have made adjustments and corrections in my business plans. I have developed new business plans for 1 year, 2 years and 5 year periods down the road. I made the corrections and adjustments to them during this trip based on what I learned.

I learned the importance of core competence during this trip and I understand we should be focusing on the core competency of my company which provides material resource planning for large companies. What we have seen at 2 or 3 companies during the trip can easily be used in our operations. For example, at DSA in New Jersey we saw how they use the Internet for their purchasing orders.

DynCorp is an example of a company in a state of highly developed well being. I now realize that the more time I spend in the corridors of corporate power with senior authorities, the better it will be for my company. As a parallel, the best thing for a Slavutych company is to be based permanently in Kiev.

The second technology I was impressed with was Bar Code Systems; using bar codes for tracking material resources in manufacturing. Although I did have personal experience introducing bar codes in different industries, we have never considered doing that in the construction industry. Somehow it never occurred to me that it was possible to install a bar code on a 10 meter pipe.

After several hours of contract talks I believed that I would have a firm contract with Bar Code Industrial Systems. We spent several hours negotiating a potential contract which unfortunately did not result in a signed contract. It was a disappointment for me. From the U.S. company's point of view, Ukraine is an especially high risk and the U.S. government does not recommend that U.S. businesses go there. I am positive that if this proposal had been proposed by Mexicans or Germans, the contract would have been signed.

If I did have a contract, it would be easier for me to hire the BIS company as a subcontractor and I would save at least a year of promotion because BIS has tremendous experience and they know what they are doing. Nevertheless, even on my own I will try to start something but I might run out of resources. DynCorp mentioned that they spend up to \$200,000 just to write a proposal and that is a lot of money. If I try to evaluate the assets of my company to support a contract, it will cost me roughly \$50,000. It is very hard to evaluate the non-tangible assets of my company. There is no way to put a value to them.

[CEI comment: It is very unlikely that, even in a domestic situation, there would be a signed contract after an initial meeting.]

I certainly do not perceive this situation as a disaster. I understand that the negotiation process means that this company is interested in the area of my operations. Otherwise they would not have invested hours to find out about the details of my firm. I was specifically proposing new business for them and for us, if we could come up with a mechanism for providing risk management and risk insurance that would have solved our problem. Our firm would have been able to save Ukraine companies tens of millions of dollars using this system. I believe that in implementing this contract the resulting return could have been 1 or 2 million dollars. We were considering a three year contract and a pre-payment that would be nominal, symbolic mainly, because the major fee would have been paid after our client receives a return.

I would like to note that I am the most successful vendor of such systems in the Chernihiv Oblast with a population of 1.5 million people. I can tell you that nobody in our oblast has sold more systems than I have.

I will bring back 12 hours of video footage which will be used as training material. As a learning resource it will be absolutely outstanding. We have attended a number of company presentations that were all different. Some of them were good, others were excellent, and still others were absolutely outstanding. As a person who attends all kinds of seminars and who conducts seminars himself, I can say that some of them were absolutely unique in terms of holding the attention of the audience.

Certain aspects of U.S. company techniques I will be able to implement very quickly. One example is a hot line providing support for our products. I will be able to make a Window display facing the main street in our town. I was very impressed with NBC in Chicago. Their anchors are not hiding somewhere in a cubbyhole, but they are out there, they are visible. Everybody can watch them doing their job. There are many types of operations like that which my employees, 10 to 12 highly qualified specialists, will be able to find useful.

An important aspect for me was getting to know among the study tour members, the different layers of social and professional strata within the Slavutysh community. Sometimes the questions my colleagues asked were of more interest to me than the answers given by the U.S. companies visited.

I would like to comment on subjects that generated discussions in our group. Many years ago I realized that the philosophy of the company is much more important than its technical resources. The three key specialists in my firm who share my philosophy have been working with me for over 20 years although I personally have been in and out of 5 companies during this time. A lot of my patrons believe in a concept similar to what Cincom has developed in their "Don Quixote's way" in which they try to encourage higher performance by their employees. They have a contest and they nominate 10 employees as followers of Don Quixote every year. Some of my tour members believe that this is just a marketing gimmick to confuse people or cheat them. But I am positive that integrity, transparency, and openness are crucial for success.

But obviously by implementing this approach I do lose certain employee specialists and I do lose certain market sectors because sometimes I provide too much information to my customers.

If I am able to come up with the required resources, I am pretty sure that if I invest \$100,000, that over a period of 2 to 3 years I will be able to gain a net profit of a million dollars. Of course part of this investment will be spent to obtain tax free status in Slavutysh.

With respect to standard IT solutions, I created a separate company and I employed a new director for this firm. Unfortunately, over a period of 5 years our revenues have decreased 5 times. We used to have 60% of the market. At this point we are left with only 15%. At this time I do not have any particular desire to install old standard solutions. By the time companies understand what innovations should be introduced, it is time to quit doing that. It must be part of

my personality since I am not a charismatic leader and I cannot control everything just by using an iron fist.

Speaking about dissemination, I do have personal contacts with the Editor-in-Chief of the main and most popular computer IT publication in Ukraine called Computer Review and this publication is found on the desks in all IT companies. I can guarantee maybe one article. Whether I can issue a series of articles depends on what the Editor-in-Chief decides. I also have personal contacts with a number of television networks but they like to broadcast demonstrations and protest rallies more than high technology discussions. Maybe the best we can obtain on television is a 30 second segment.

I am also going to open my own Internet site using support that is provided by USAID. I looked up the CEI website before coming here for concepts and presentations.

Case 7: Slavutich Town Executive Committee

Company profile

The Town Executive Committee has 12 departments with 56 specialists involved in different areas. The General Department is the key department involved in providing organizational and technical direction of the town council's activity. All departments of the Executive Committee are provided with computers (20 in total, including 14 with Intel Pentium processors). The main areas of the Department's activity are:

- Organization of business correspondence and ensuring implementation timelines;
- Provision of software for the activities of the different sections and departments of the Executive Committee;
- Provision of office equipment and its maintenance.

The following software is used: "ASKOD", "Accounting and Control of the Resolution and Assignment Execution", "Archives", "Accounting", "Legal Regulations", "Victims of Chernobyl Accident", "Protection of the Children's Health", "Businesses", "Units Under Construction". There is a local network which facilitates the work between departments.

Larysa Nikitich presentation

I have had many learning experiences on this study tour.

We have a concentration of intelligent and educated people in our town. We also have a number of highly qualified personnel. We understand that as the Chernobyl Nuclear Power Plant is shut down a lot of people are going to be released from the plant. I believe that the full understanding of the ways to proceed with the transition will come later when conditions will settle down and will crystallize. Our data system that has employment information available will be able to come up with practical solutions. But now I would like to share my very first study tour impressions.

As a manager I was impressed with the customer relations at all the U.S. companies we have visited. I saw that the level of their presentations to customers was very high. I was most impressed by the presentation at Cincom which was outstanding. That company's presentation and demonstrations are more effective than just words and everything at this company was so visual and was presented in a clear and concise manner.

The demonstration center at SAP really amazed all of us. They have specific personnel that do nothing other than presentations and briefings. I also noticed this staff is assigned to work with all customers and all clients trying to sell their product and sometime it does not really

matter that they will not get any revenue or profits from a particular customer. They are prepared to handle everybody and to make their best effort trying to attract customers.

I liked also the personal relations among the personnel working on the future developments of the companies. I was impressed with the friendliness and respectful attitude of management to all specialists working at the companies and also to clerks and to people of low rank working there. That is something that really sold me completely. I noticed at Cincom that they have a whole wall devoted to plaques of outstanding employees they recognize every year. Yes, we did find an oversight on this wall. They have not updated the plaques for about 2 years, but that is really not important. What is important is that they recognize their employees' performance and they are trying to make this recognition very visible.

I noted in the U.S. plants, concerns about creating the best working conditions. That is important. It is really important that an employee should not be thinking about the temperature in the room, whether he is cold or hot, or wasting his time concerned about where to put his or her belongings, or thinking about that uncomfortable chair to sit in. If an employee doesn't think about all those things, he or she thinks more about work. When all those factors are taken together, and it is clear that the company cares and takes an interest in them, their attitude and performance will be better, and everybody will win as a result.

Another aspect that I cannot over emphasize is that all the companies we have visited are emphasizing training opportunities for their personnel. I am talking about annual regular training sessions. And they didn't just provide an optional opportunity but they tried to provide incentives to stimulate their personnel.

Another thing I would like to note is that we observed "Knowledge Management" at DSA. The idea of creating a single unified information database within the framework of one company is a good idea. We can implement the same idea for our town which is not large with only 25,000 residents. We could create one unified information database for our town providing business and personnel information. That would be a wonderful idea for the town.

Another technology that I saw at the Accu-Med company was their computer software which provided services and solutions for nursing homes. This is something we can use easily in our town. My idea is to collect all the medical data on the city residents and the survivors of the Chernobyl disaster. We have quite a lot of data. We can categorize the data into first, second, and third categories since we have a lot of cases of disease among our children. This information contained in a shared system or collected in a separate database can also be used by our human services department and the Chernobyl Foundation that provides assistance to the survivors. That has a great potential.

Another new concept I have to note is the "virtual education system" we learned about at the DynCorp firm. That is another potential technology for us. Practically every high school in our town has a computer and children are very interested in computer technology. They do not read much but they use the computers more; they take part in chat rooms, and they correspond with each other using all sorts of code words, etc. The company thinks we can provide educational material through the computer or through Internet games. That will be both practical and useful.

I work at the Slavutych Business Development Agency which generates a lot of paperwork and some of the documents cannot be destroyed for many years. Sometimes we have to archive documents for decades. I like the idea of electronic archives that was shared with us at the DSA company. I got very interested when I first heard about it. However, for Ukraine, laws must be passed at the national level that make electronic documents legally acceptable.

Another technology Cincom shared with us was electronic generation of documents. I recognize they use one single template there and they address the document to maybe a thousand addresses and that is a lot. But even if we use fewer addresses in Ukraine, it will still work.

Another new technology that impressed me was demonstrated to us by Bar Code Systems. Using bar code technologies, companies can reduce pilferage from warehouses. That is important. Bar codes are able to provide better tracking, better monitoring of inventory and reduce stealing from warehouses. This technology can be implemented in all warehouses. We have warehouses in our town. They may not be as big as those in America, but we can start talking about warehouse savings all over Ukraine on a national level through the use of bar codes.

I was also impressed with the marketing functions at the companies we visited. At present we have to engage in bidding or auctions for state orders involving government funds. It would be much easier if we could do it electronically. At present we have to fill in all the paperwork manually and we often do not have enough objective information for the bidding. We might know one or a few companies and I am sure if we were able to use electronic databases the whole ordering transaction would be more cost effective and advantageous for us.

Of course it is difficult to persuade all our top executives to accept these innovations. CEI has been to our town and knows that our Mayor is a very progressive person. He likes innovations, everything new.

Speaking of dissemination, at our city hall we have a PR center. We have our own newspaper and a TV studio through which we will be able to disseminate information on what we have learned in the U.S. We also have our own city hall website and we are going to place new technology information there based on the report of our group.

Our group also talked about using the Maket company web site as the carrier of both formal and informal information about our trip. We are going to post pictures there and we hope that information will attract a lot of users. And I am pretty sure that the more that people are exposed to new technological information and the more they participate in programs such as this one from CEI, the more we in Ukraine will be able to learn and share. And I hope your program will continue.

We have our city newspaper and I am sure there will be an article published soon.

Case 8: Ukrtechpostavka

Company profile

The company was established in 1995 to provide consulting assistance to create local networks and provide information services using the Internet. By 2001 there were 4 employees and the turnover was about 300,000 UAH. The company participated in the development of program modules for the ChNPP R3 system adaptation. The company also designed and installed APM accounting systems for private and state run enterprises. The company constantly searches for new clients using network marketing and plans to increase the production and volume of its services.

Volodymyr Byelov presentation

We have seen a lot on this study tour and learned more than I had expected. I would like to emphasize that all we saw on our U.S. study tour was useful. If I were the leader of our country and in charge of determining strategy in Ukraine, I would apply everything I have seen in the U.S. on information technology. But it is not really possible because we would have to

look for money and I don't think Ukraine is really prepared to implement everything at this point.

In the U.S. and Ukraine we have drastically different approaches to new problems, to new solutions, and to new approaches. In the U.S. it is quite enough to come up with a new idea, provide substantiated documents supporting it and this idea will be bought or sold. I understand that this may be my overly simplified understanding of the American industrial environment. However, as you know, in our country, we have this huge bureaucratic system left over, all this impenetrable fortress of bureaucracy which is a holdover from the Soviet command system. A typical bureaucrat does not need my ideas. What he needs is a safe and peaceful retirement. He wants to retire with honors. He doesn't care about what I propose.

I have a very clear example for you. What we saw at the SAP America company were excellent examples of automated management systems, inventory tracking and sales tracking. A similar system was actually used in the Soviet Union. I personally worked for 22 years in the Soviet Union on automated management systems, including a comprehensive model of an automated management system. What they actually showed us at SAP was their old model which was similar to what we had in 1967-69. They transferred it to a new platform; they based it on CDROM which basically changed the ideology, and the approach of this ERP complex. But unfortunately the whole approach of automated management systems in our country died. All the innovation and all the new decisions were dropped because of the un-readiness and un-preparedness of the top echelon of our country's economists. The economy leaders were in favor of working only with shock (crisis) monetary methods.

Let me give you an example; we had an excellent old production standard at a plant. Output was calculated to a one hour standard, but often a mid level manager was not necessarily willing to comply with the schedule. If the schedule held that 2000 pieces were to be delivered by this machine at a given hour, everything would be stalled if the crane operator had fallen sick or if the driver had gotten drunk, or if the warehouse superintendent had disappeared somewhere leaving an enigmatic message saying that he had gone somewhere. The whole production process would stop.

I would like to emphasize that all systems developed by Cincom, SAP America, and Systegration target the economics of wealthy countries with stable infrastructures and stable economics.

I have a slightly different approach to our information technology problem than the other members of our tour group. With the exception of two people, everybody else is a civil servant or works at a state owned enterprise and they work for their fixed salaries. They are paid employees. I am not an employee, I am an employer. I pay wages to my employees. So that is why I practice a good friend approach. I was looking at the U.S. company projects for ideas or concepts that I would be able to implement in my business to increase my profits and the general prosperity of the company.

I was very interested in the bar code technologies because at this time my company has signed two contracts with French project implementation groups. The big problem is that they are receiving heaps and piles of different materials. They have large warehouses and they need to keep track of the inventory. But what happens is that the flow of papers, the movement of documents between different locations might take as much as one day. One day to locate one piece of paper.

Unfortunately I do not have the financial resources to be able to purchase the bar code solutions. But what I can do is become their representative or their authorized dealer in Ukraine. I would be able to demonstrate their bar code systems to other companies including the two French companies with whom I am dealing.

Wearable computers – that is something I can manage myself. I spoke to representatives of the company that makes the wearable computers and I am prepared to purchase two sets of their equipment to be able to demonstrate it. I also got an idea about combining those two types of technologies, the wearable computer and the bar code solutions. This combination can be used on construction sites which will ensure constant and very reliable feedback because by using the computer we will be able to track the exact location of each item.

Everything will become very transparent and visible and every mid-level manager such as the site superintendent will be able to obtain instant information. Now it takes hours to know where people are coming from and where they are going. Furthermore, this information would be very easy to track by managers at a higher level. I think the combining of those two technologies will be a very good idea.

There is a basic philosophical difference between Ukraine and the U.S. to new ideas. If an American sees a new idea he will probably say what a wonderful idea it is and that we should get down to business and implement this idea. In our country people will say: “Well, most probably it will be rejected or discouraged in other ways.”

I have also observed in the U.S. companies the same operations and management principles are used from the smallest firms up to giant companies. I noted the attitude of management to their personnel. The team spirit I observed here was very important; the feeling, the perception that we are all one family and the way management is constantly striving to give personalized attention to their employees. They are continuously training their employees, trying to promote them and recognize and appreciate their efforts. If an employee here is able to increase the company’s profits by \$2.00, this person’s contributions will be recognized. And that is a big difference, because in our country it is not done in such a way.

I would say that the main economic effect of this trip for me is a better understanding of what my foreign partners and customers want from me. And I should add that it is easier for me to work with my foreign clients than domestic clients because they pay me as scheduled on a regular basis.

Regarding those two projects I have mentioned, bar codes and wearable computers, I can see my place very clearly. I will become an intermediary in their sales operations or a consultant if you wish. My interest will be to represent those companies and I will negotiate for a certain percentage of their sales and that will be a very tangible economic result of the tour.

With respect to dissemination of what we have learned on this tour, one thing I am going to do is to prepare a press release and share it with my friends at Kiev television. I will provide them with slides and information. It will be great if we are able to get 1.5 or 2 minutes. Yesterday we discussed the idea of a website which Oleksandr Novikov is going to implement. I think it is a great idea. I am also going to use my personal contacts in the business community. I believe there will be people from this group who will spread this new information in Slavutych. I personally will be able to do this in the town of Chernihiv using their polytechnic universities where I have business partners who are my friends and who are programmers and a presentation or seminar could be arranged there.

There is a different approach to technical publications in Ukraine and here in the U.S. In the U.S. any specialist can present a letter to the editor and this letter might be published in full or edited and published. We don’t have any free lancers. If you are not a reporter on the staff of that particular magazine or journal, nobody will even consider your publication.

I think that a realistic way to go is to approach my friends who are professionals and present them with materials. They will process it in a professional way and that material will definitely be accepted. We can try to do something with Slavutych television.

Case 9: Saitex

Company profile

The company was organized in 2001 by former specialists of the Information Measuring Systems Laboratory of the Chernobyl Nuclear Power Station. The company is involved in the following areas: system integration, network integration, software for small businesses, and software for energy systems. The company's personnel have a great deal of practical experience.

Sergiy Krutsenko presentation

I would like to say that my learning experiences were most positive. I would like to express my gratitude to the Center for Economic Initiatives for this tour program.

I feel that the study tour program was conducted in a very logical manner. We have had a chance to visit different companies starting with the smallest ones and ending up with those giants dealing with billions of dollars. I am referring to the i2 and SAP companies. These firms are actually in different markets and they work with small, medium and large sectors of the market. Their range of activities is obviously very different. The experience of these firms is very useful for my company because we also are going to produce software for different sectors. This trip gave me a chance to understand the major trends of the IT market here. We were introduced to Customer Relations Management (CRM) systems. Here I am referring to individualized database and customer relations systems. In Ukraine there are tremendous opportunities for implementing CRM systems. The demand for such services is very great.

For me personally it was important to familiarize myself with U.S. CRM systems because being a computer programmer I was implementing those approaches two years ago but I didn't have the slightest idea what it was all about.

The next thing I would like to comment on is the very deep penetration in the U.S. of Internet information technologies. In Ukraine we do not have a developed infrastructure like that but I am pretty sure that it will eventually be in place because the Internet is our most dynamically developing sphere at this point. I am pretty sure that IT will penetrate our computer technologies.

With respect to the effectiveness of the results of our visit, I would like to single out the visit to Cincom. We had an excellent presentation there which was a very graphic example of introducing and demonstrating ones software product. It was a practical demonstration of promoting a particular software product to the market. I can say that in Ukraine these presentation methods are not used much. We have tried to learn from this experience and will try to implement it in our practices. Another thing that I liked here was the use of the Don Quixote club. We had a similar program in Ukraine under a different name and it provided pretty much the same function. But it was too formal and far too long. It has not produced the desired results. Here this idea was implemented very well with a lot of grace and flair and I think we will be able to do something similar in our company.

Another thing that impressed me was how U.S. firms cultivated a spirit of teamwork. This approach is well thought out and structured.

I would like to comment on our visit to the data center of the SAP company. It was most impressive. Seeing the applications of the newest technologies can cause only admiration.

I observed what can be practically used in Ukraine. Eighty percent of our servers use Windows NT. Nowadays in our specialized publications in Ukraine there is a whole discussion underway about the comparative advantages of UNIX, Windows, Linux and NT. These publications predict the imminent downfall of Windows and Bill Gates. Here I got convinced that we have nothing in the future to be afraid of because we develop software products for

Windows. There is nothing we should be concerned about because we are developing software products that run under Windows and Windows will survive.

The idea of developing a data center is really applicable for us because there is a huge demand for data storage. However, we have very few specialists and systems administrators. It is possible for us to set up a specific company, install several servers, and accept somebody else's data for responsible storage.

I would like to make some suggestions for developing study tour programs in the future. I would like to suggest that this program be deepened somewhat. For example, we come to visit a company and they make a demonstration of their company and their products. It would be nice if we had a chance to go back to this very company on the following day after digesting all the information we have received. We would have a chance to go down several levels in the organization. For example, they could split our group into several subgroups and we would be taken to different departments according to our interests. Then we would get a chance to communicate with developers and employees at a lower level and learn from them during these contacts. I believe that would be beneficial for them as well. What I actually seek is gaining more in-depth knowledge about the company's operations and their products. What we were exposed to was a presentation and of course a presentation is a presentation and everything is presented nicely but I would like to get down and dirty and find out what exactly is done behind the scenes.

I have several ideas for developing specific software and I know there is a demand for those products. If we are talking about the national level, our firm may be able to earn about \$150,000. That may be an estimate on the high side because we have all types of psychological barriers that prevent the introduction of software products. In principle we can make this type of money.

Case 10: Atomservice

Company profile

All of the company's employees have higher education and extensive work experience. New employees are hired on a competitive basis mainly from the former employees of the Chernobyl NPS. The company also has nine part-time employees who work under a job agreement and are hired for execution of specific works.

"Atomservice" Scientific-Production Enterprise specializes in the implementation of quality systems at the nuclear power enterprises in accordance with the ISO 9000-2000 International system of standards.

Andriy Karasov presentation

I have lots of learning experiences gained during my visit to the U.S. It will probably take me a couple of months to absorb the concepts I have been accumulating over these three weeks. Of course America is the country of roads and I can tell you that Ukraine is the country of no roads and I can attest to this because I am a car enthusiast. America has really amazed me by the abundance of roads and the quality of the roads. Because of this extensive road network Americans can afford to live as they want to live, not as they should live or can live.

While traveling across America we saw many picturesque, lovely villages. We saw stand alone houses amid woods and when you saw these houses it makes you want to live in them. Thanks to the road network, America is a very cohesive country. It isn't a problem to link up with your friend who lives 1,000 miles away. At the same time I would like to share with you my vision of the key to the success of American business. I believe that because of this

developed infrastructure everybody has a chance to improve and also to develop a piece of this infrastructure. In general I can say that everything seems to be structured but flexible at the same time. Different entities are connected and interdependent but this connection is loose and flexible and indirect in many ways. I was very impressed with the companies we have visited. It was very interesting to me as a visitor, an outsider, to look at those companies and also to make a comparison among them.

I was impressed with the American companies and with their work force focusing their efforts to work as an operating team. If you look at the way the offices are decorated, I observed that the companies are not praising themselves but they are praising and giving recognition to their best employees. We had a similar practice in the former Soviet Union and they were called Boards of Honor. Here it is done in a more personable and a warm manner. I was impressed with the interior design at companies with all the details taken into consideration, the way the large spaces are separated by partitions and everybody seems to have a very cozy and comfortable private space.

My first practical conclusion is that I will talk with my boss and other managers and request that our interior design be upgraded within our budgetary constraints. The effect I would like to implement is using those partitions to create private space and if people sitting in different cubbyholes have a desire to communicate they can do it but at the same time they will not so likely be engaged in gossip or idle conversation.

My second impression on the tour is the penetration of the Internet into all communication channels of America life which really results in the global unification of all people. Ukraine started improving Internet communications seriously only 2 or 3 years ago. Certain improvements are being made and it is much more interesting for us to work on the Internet now that we can see the realized dream of an effective Internet system.

In many ways America, which has left Ukraine far behind, can teach us and we can capitalize on American experience at the same time avoiding the mistakes Americans may have made during the development process. So in this way we have been able to see your development efforts and take advantage of them. A lot of companies we visited develop software and they are now working on unifying their operations.

I had a chance to see in detail the Knowledge Management product. I had read about that but here I had a chance really to see it being used. There is a saying: to ask a gnome a question one should know at least half of the answer. When I come back home I will be able to ask questions because I will have an idea of the directions we should follow.

Our company provides information and technical support to the National Agency of Ukraine on security issues. And the solutions of American companies of combining the Internet and Knowledge Management modules could apply to us without endangering the universal spread of nuclear safety information.

Those are probably my best impressions. It is hard for me to formulate anything else because I am dealing with a lot of impressions which have not been processed into a concise information block yet.

We found out that the Cincom company is obviously interested in the potential Ukrainian market and there are at least three Ukrainian companies that might be considering or are ready to purchase their products. I am referring to MAP the energy generating company, the Motorsich plant in Zaporizhia, and the Anton Aviation plant. With reference to firms who can develop software for foreign companies or provide outsourcing services while in Ukraine, the issue is actually to build up a team of those computer programmers.

Everything I saw was very interesting. All those IT issues are pretty complicated. Actually at this point we really should be considering the question of whether Ukraine is ready and prepared for those products to penetrate our market.

I am pretty sure my company will be interested in the knowledge I am going to disseminate when I come back. I am confident that we will try to consider and implement something in the next few months.

Speaking about study tour dissemination, we had a group discussion about strategy for our group. Each of us is going to present our own message that will be posted at our Slavutych site. I am also going to come up with a very detailed report which I will hand over to the management of my company and also to my friends and acquaintances. I know a lot of people in Slavutych. I have been living there for 16 years. With respect to getting an article published, I think it is a great idea; my agency publishes a journal on nuclear radioactive security and I will consider writing an article for this publication. As we have our own TV center in Slavutych, I am pretty sure we will have a program about our trip since many of our members learned a great deal during our travels. The idea of hiding under the mattress information we have learned here is pretty much kidding oneself because obviously when we give something out, when we make gifts, we make ourselves richer.

Case 11: Chernobyl Nuclear Power Plant (ChNPP), Automated Control Systems

Company profile

In 1995 an R/3 system group was established within the Enterprise Automated Control Systems Department. Later it was reorganized into an EACS Department. Since its establishment, an introduction and modernization of the SAP R/3 System has been completed. In 2001 about 10 financial-accounting departments of ChNPP use this system. New modules are being installed for the supply and planning departments' automation. UNIX-servers are used as a system platform and Informix is used as a database server.

The Sector consists of two groups: administrators and analysts. The Administrators group is responsible for the technical and program parts of the system's maintenance. Analysts are responsible for the system's operation, quality control, development and modernization.

Oleg Ustymenko presentation

My experiences during the study tour are good and positive. I was impressed with the fact that hotels use cards to get into the rooms and that grocery and retail stores use bar codes plus the fact that these high technologies, I don't know if they are IT technologies or not, have reached the every day level. First I would like to comment on the trends that impressed me and then I am going to talk about the specific details. With respect to Internet technologies, we read about some of them in our press and there were articles in publications about Internet development and Internet technologies. But here we were able to see and observe how things were actually done. Here we were able to see persons not just using the Internet for the sake of using the Internet but rather to collect data or search for data. We saw how Internet solutions are used in the interest of a corporation, to perform corporate functions and also to provide customer service. Very interesting was the trend for more narrowly focused specialization that we observed in all companies. I was also able to understand why it was possible because basically around the country we can see a lot of spin-offs and spin-offs are the result of functions a company rejected in the process of its development.

Another observation I made here is that a lot of companies have reached a level at which they are trying to split their IT department. I have not gone through all my records, but I

remember that at one company they set up a separate entity or company to implement their projects or to provide maintenance for their products or to perform sales of the products. So those are the various spin off functions and sometimes a different entity will be created to manage it.

Another thing I was impressed with was that all the companies believe that their personnel should be developed. Managers are always trying to improve their qualifications and train their personnel. That is a new area to me. In the U.S. great efforts, and I believe substantial resources, are invested into promoting teamwork. It is manifested in narrow specialization of work for specific employees and a lack of redundancy or duplication among employees in the company. Both responsibilities and accountability are thus spread and delegated.

It is also important to note that in the U.S. the first gut reaction to a problem is to not look for the person who is responsible for this problem, but to look for ways to correct it, to eradicate it, to make it better. This is in contrast to the traditional Russian approach of first who is to be blamed and then what should be done to solve the problem. These are prioritized differently in the U.S. That is, who is guilty and to be blamed is not that much of an issue in America as it is in say Ukraine.

Unlike our approach in Ukraine, we noticed that in the U.S. the trend even in the smaller companies is to reinvest profits in the business, in development, as opposed to spending profits in other ways. An example is one firm we saw which was trying to reduce their warehouse space and also reduce the inventory. Basically they tried to reduce all their costs that do not directly relate to profitable production.

Another trend that I noticed was that a lot of companies quit selling a finished product but instead sell tools that enable others to develop systems: companies like Impact and Cincom are examples. This certainly removes the responsibility from the big company that developed this software in case of an application failure.

The awareness that IT technologies are useful and beneficial and can be used to make a profit is news to many people in Ukraine who believe that computers are good for playing games or that the Internet is good for playing games or that computers are essentially an advanced typewriter. We don't realize that essentially using IT can improve operations of the whole plant, can overhaul the whole production system.

What I liked particularly was the visit to the i2 company where they showed us the CSM system, not in an abstract way, but very specifically in terms of tracking or reducing a cost or boosting their productivity effectiveness.

The Systegration company described to us very well the conditions of the current American IT labor market and trends of IT development in the U.S. We can see what the U.S. is shooting for and we can see the clear objective they pursue. This company also described the outsourcing function very well and the requirements that are presented by companies that provide outsourcing.

The small company we visited that is owned by the Russians is a classic example of narrow focus or specialization. They concentrate on assembling computers and they have pretty much everything in control.

The Impact company provided us with an example of leasing software products. This was not a new idea but to see how this is accomplished was really interesting. I already mentioned the things that Impact and Cincom do; where a product is provided to the customer with certain tools which will enable the customer to develop the finished product.

The systems of the SAP company showed little new of substance for me since I am working with systems like theirs. What they did for me was to describe methods for developing

those systems anywhere in the world. I was impressed by the way they recycle and redo both the Intranet systems and Internet based systems. I was greatly impressed with that.

The DSA company provided us with an interesting lecture on Knowledge Management. It will be very easy to implement a system of knowledge databases in our country. And their system will provide a way to attract users to information technologies. It is like giving consumers a bite to eat to develop their interest in applications. Another contribution this topic provided for me was very realistic tips on how to introduce IT into companies or enterprises or plants in Ukraine.

Speaking about Bar Code Industrial Systems, I already mentioned that in every day life we see a lot of applications of bar codes in grocery and other stores, and again it was very interesting to listen to the company not from the point of view of an every day user but from the point of view of a developer.

Before coming here I did not really think that bar codes had a lot of potential and now I have learned that they are most promising. Here in the U.S. I changed my mind.

Cincom provided a good example of teamwork. Personal relationships there are very interesting. I am sure they invest a lot of effort to create and maintain this atmosphere. They are pretty sure it pays off and I am certain that we will be able to adopt at least some of those approaches in our system in Ukraine.

What we saw yesterday at the Accu-Med company reminds me of an existing situation we now have in Ukraine. This company develops software products for a special customer base and I believe the range of their customers is pretty limited. I also noticed their lack of interest in using Internet technologies and I feel they are targeting customers with modest needs. I could recommend a lot of other software companies in developing nations to narrow their scale of operations and try to become a monopolist in a given area or become a trend setter in another field. We have examples of such trend setters in Ukraine and the NIS.

Now, with regard to what I would like to apply in my work. A human being cannot really skip their youth and become an adult right away. Likewise, Ukraine cannot quickly change from its former situation or condition and become just like the USA. Ongoing development is required. So what I am going to do when I come back is to have a briefing with the leadership of the company and basically try to introduce the idea that we do need information technologists. We need IT to get us going. Besides, we should take advantage of the opportunity not to repeat the mistakes that were made in the U.S. As they say, we should not step on the rake twice. There are a lot of ready made solutions that are available that we can borrow.

I must present interesting figures plus examples so that I will be able to get back into the mindset of the leaders of our company and I believe everybody will listen to me.

What can be done in our Ukrainian system without considerable expenditures and in a reasonably short term is to create a list of minimum knowledge databases. At least in my company we will have several knowledge databases and the next logical step will be to integrate them and create a corporate knowledge system.

I once read an article which presented a modification of foreign experience to a Russian / Ukrainian situation and which gave a breakdown of all the steps we need to take. Step number one was to provide a description of the new knowledge available. The second step was to modify the data. The third step was to factor in all economic indicators, to win new markets, or to penetrate new markets, or whatever. But the very first step is always the description of new knowledge.

For dissemination of our learned experience in the U.S., first of all I am going to share the new ideas with my employer which is the Chernobyl Nuclear Power Plant. I am also going

to use my personal connections and talk with my friends and acquaintances, many of whom live in Kiev. If I have enough talent and time I am going to write an article and submit it to organizers who prepare specialized forums for enterprise development or other subjects of interest. Hopefully it will be published. We have an Intranet site at my support group but until recently it was pretty much an amateur page, pretty much an interest club. We will start developing and creating a knowledge base there and I am going to write an in-depth and detailed report about this whole trip in which I am going to analyze everything I have seen and heard.

Case 12: Lotos

Company profile

The company's employees know the following programming languages: SQL, VBA, VB, C++, Delphi. New employees come from Slavutich.

The company's main activities cover the entire production cycle – from the moment of project development (analysis) until its full completion (submission of documents, personnel training). Planned sales volume in 2002 is 100,000 to 200,000 UAH.

The company searches for new clients via previous buyers of different versions and via Internet. Varied financial payment schemes are used with clients. In the Slavutich market, the company does not face any competition, though outside Slavutich the competition is very tough.

Oleksiy Myronov presentation

I would like to say that I was pleasantly surprised by the professionalism of our group leader with his erudition for the program that he has made for us as well as the professionalism of our interpreter. His professionalism and willingness to provide assistance to us both logistically and in professional situations was outstanding and I believe those two factors increased the effectiveness of this study tour a lot.

Speaking about my learning experience on the study tour, there were many. I believe it will take me more than a month to digest them. During a trade show in Kiev in December, which is about enterprise management, I will try to present both a combined account about IT technology in the U.S. and the level of IT development in Ukraine. I would like to say that the Ukrainian IT market at the present moment can be characterized by the following limitations.

Considering the relative shortage of funds in Ukraine in small and medium size business, most IT developments require corporate solutions. Here in the U.S. we were able to see solutions encompassing the whole range of companies starting with the smallest up to the largest. I believe the study tour gave us a better understanding of all the current developments better than anyone else in Ukraine possessed who did not come with the study tour to the U.S.

So we are just following the Microsoft tradition. We are trying to focus on small and medium sized businesses. And I believe our solutions will develop further in the following 2 or 3 years.

With the level of development of web technologies we have seen in the U.S. we will, I believe, be able to start implementing similar approaches step by step gradually because Ukraine's infrastructure at this point is not prepared for complete absorption of these technologies. But I am pretty sure we are going to start transferring some of the remote users to the use of these technologies. I believe that some of the users or part of the users will be able to stay with the old network technologies while company stockholders and their customers or clients will become big clients and will be able to transfer to the new technologies.

I also want to mention the brightest impressions I got. It was the understanding of where to look for investment money. Here I was able to see first and foremost the concept of the client as a provider of money. This concept is identical for both small clients and large customers.

The second interesting principle I learned is called “Just in Time” for warehouse inventory. The next principle I liked was mass customization. Another important solution we all liked is an ability to lease software products. I have never seen any comparable practices in Ukraine so far. And again there is the issue of developing web technologies. A separate technology that I will certainly work on in my company and am definitely going to share with my business partners is Knowledge Management.

Again I am not talking about technologies and methods that can be used at absolutely any level of IT. I perceive these ideas as applying to the resources of the program officer and the software developer and also pertaining to personnel staff using these new technologies. I probably don't have it formulated well yet but I believe we should be using the U.S. corporate solutions more as far as writing software. I believe that several groups of Ukraine companies should unite or come together to develop a software solution as if they were one large corporate customer.

Some small companies like mine are beginning to use real amateur technologies. Maybe if we are able to achieve joint funding of those projects we will be able to achieve qualitatively a new level of effectiveness. Also, I am pretty hopeful that the contacts we have been able to establish at least in some companies will develop and will help us achieve business relationships.

For example, the technologies that the bar code company uses are very timely for us and we will work very seriously on their use. Again I was very favorably impressed by the fact that SAP doesn't refuse its services, even to small clients.

We definitely are going to have a conference or seminar at our company. I will talk about the ways to implement or adapt those ideas better. First, I am going to talk to my boss at least about the initial stage of implementation of Knowledge Management systems we were exposed to here. And I will talk about qualitative development in our company. In the future in our marketing department we will try to implement the new technology ideas and business proposals we learned about here.

I believe the best approach for disseminating this knowledge is the example of ones own prosperous company. All my accounts and all my notes will certainly have more weight when a user or customer will see that actually I used it and it worked. So our main emphasis will be on application implementation.

One of the technical innovations we are going to start with will be creating a web interface. The next stage will be, as they explained to us in the Knowledge Management system, to look for weak links. Of course we are trying to do that empirically, but there again every idea or methodology which is studied on paper increases the productivity or efficiency several times. Using the examples of companies we have visited, we are going to work on expanding our presence in the market and market segment and expanding and broadening our niche. I am also sure that our work with partners from overseas will increase the effectiveness of the solutions we will provide.

Another need that is actually not that great in Ukraine at this time but will definitely grow is the need for consulting services. Although my company is not providing many services in this area, I believe that it will present a very promising new field of operation in the future.

Case 13: Perspectiva

Company profile

Perspectiva was established in 1990 with staff from the Production Management Automatic Control Systems Department of the Chernobyl Nuclear Power Station – it became the main contractor for Slavutich's integrated information systems needs. Since its establishment, Perspectiva has developed and installed software at the Slavutich police department, Passport issuing agency, and Hospital (among others). The company is also involved in office equipment repairs. In 1999, the enterprise began to produce stationery and created a wide stationery retail network throughout Slavutich, Chernihiv and Kiev and through a wholesale center in Kiev. At present the enterprise has about 500 permanent clients from all over Ukraine. The company has installed an automated system for handling sales and controlling the production process, which has allowed the company to process orders much more quickly. At present the company is working on the creation of a virtual Internet store. Market share: 1-2 % (own products – 10-20 %) and estimated sales revenue in 2001 to be 8,280,000 UAH.

Igor Klimentov presentation

I saw the full spectrum of U.S. industries in IT related business. I was very impressed by the overall conditions of business, infrastructure and the robust financial situation in the USA. I visited small, medium and large companies. As the technical director of a stationery supply operation in Ukraine, I was very interested in the Supply Chain Management (SCM) and Customer Relations Management (CRM) concepts. I was impressed in general on how the companies in USA treat their customers. Thanks to CRM, the bigger the company the more attention paid to the customer. Good team-work, employee relations and constant manpower training were very impressive in USA.

One of the unfulfilled needs in Ukraine is the lack of consulting businesses. Many software companies operate via the Internet. Application service providers and hosting services are absent from Ukraine.

I plan to introduce several elements of SCM in our manufacturing management. I believe outside vendors can also be provided with some web based solutions. I can use my 500 clients (my distribution system) to encourage consulting services.

I will go back to Ukraine and provide information via my distribution channel and shops and will give lectures. I will provide information on our website, write articles in the *Stationery Office Supply Society* journal, give an interview on Slavutich TV, and spread the news to Russia.

Case 14: Maket

Company profile

Main company activities are: Internet services, consulting, introducing enterprise management systems, creating network and telecommunication complexes, and repairing office equipment. The company has wide practical experience and possesses highly qualified specialists. At present the company provides its clients with: Compaq, Hewlett-Packard, Epson, Canon, Samsung and Sony office equipment; Cisco, 3Com, Hewlett-Packard and Focus networking equipment; Microsoft, Novell, Computer Associates, SAP AG and Oracle software; and cordless communication and mini telephone stations. The company also produces and sells its own

computers. The company's main goal is to ensure high quality and reliability of its products and services. The company provides its clients with warranty and post-warranty services at its own service center. The Maket company has highly-qualified specialists which generally allows for warranty repairs to be completed within 24 hours. Market has a 80% share of the Slavutich market and its sales revenue in 2000 was 1,912,251 UAH.

Oleksandr Novikov presentation

I was absolutely thrilled with what saw and learned on this trip, especially the at SAP America. It changed my whole way of thinking about the use of the Internet for data storage. The Knowledge Management systems are truly very advances and I will be able to use many of the techniques back in Ukraine. Unfortunately the legal systems in Ukraine do not protect data stored on the Internet and we will have to give this a great deal of thought.

I saw at the U.S. firms on the tour a revolution in the understanding, knowledge and information exchanges that was so valuable to me. I have already talked with my General Manager back in Ukraine and detailed many of the project ideas based on US experience, which I intend to set up. My action plans can be described as follows:

1. Set up a non-profit website (www.USA4.ua), which will include:
 - Business Reports from the Slavutich Business Development Agency (BDA);
 - A photo gallery of American companies visited;
 - Personal pages of participants learning experiences in the U.S.
2. Initiate a commercial venture in collaboration with Mr. Oleksiy Myronov (Lotos), who also participated in the tour group which will target services for small businesses and create a Warehouse Tracking System for them.
3. Set up a Commercial Data Center with 30 servers in Slavutich for data storage for client businesses. Unfortunately, Ukraine needs to have laws securing non-intrusion by the state authority and non-leakage of data.
4. Set up a training facility for children and adults and present American style IT concepts.
5. Set up a web based customer service for payments and trading transactions using credit cards.
6. Set up a web based marketing department with interactive exhibition of products.
7. Set up a web based user friendly quick-site, where software can be leased.
8. Provide Consulting Services for Internet web design.
9. Develop a document creator as seen at the Cincom company can be reproduced and sold.
10. Make available interactive presentations of companies using flash technology records on CD-ROMs.