

# Poland: From Popes to Partnerships

by Borys Stokalski

Global software development is about teams distributed over continents building software products for remote users or markets — with the words “distributed” and “remote” being probably the most significant characteristics. Physical separation creates a whole range of problems that must be solved by project executives and through the communications infrastructure of the project. Even more troubling is the “mental remoteness” that exists between the maker and the user when a solution is being developed by people who have little understanding of the “real-world” use of the product. For software development, this situation is neither natural nor desirable, and it can only be justified by desperate needs, such as a significant shortage in the supply of meaningful IT solutions for business or a requirement to significantly reduce software development costs by outsourcing one simple but costly element of the software development value chain.

The cost-cutting scenario often involves a number of false assumptions, however. The first of these is that critical cost savings can be achieved by outsourcing the programming effort to lands where cheap programmers dwell. I do not believe that. The costs of programming are rarely the main part of the overall project costs, so it is quite likely that the entire expected savings will be outweighed by more complex logistics and other management overheads. Then, there

is too much evidence that the high costs of software stem from poor quality, lack of understanding of end-user requirements, and bad management practices. I will therefore argue that looking for partners in a global software development effort — while involving some cost-benefit issues — is in essence a quest for missing “delivery capability.” The issues that need to be addressed in such a quest are:

1. What is the potential of a market in terms of skills profile and availability?
2. What is the best model of engagement for global software projects?
3. What are the hidden costs of employing external “delivery capability”?

## QUEST FOR SKILLS

When asked about Poland, most people would recognize it as the country of Lech Walesa, quite a few would name Pope John Paul II, and that is about it. Unfortunately for those running software organizations and looking for serious support in resolving the skills shortage, this is hopelessly irrelevant information. There are other critical questions, such as, what is the availability of skilled workforce? How much does it cost? What is the best model of engagement in terms of communication and team organization? What will it take to motivate people to work efficiently and deliver high-quality results for a global project? And — honestly — do they have computers in Poland?

Things are not that bad. Most of the countries in my region are pretty familiar with information technology and have fairly well-educated IT people. The situation is not as bright as Tom DeMarco put it in his novel *The Deadline*,<sup>1</sup> but certainly many deficiencies of the educational system have been overcome by the ambition to keep in touch

<sup>1</sup>In his excellent novel *The Deadline*, Tom DeMarco suggests that the “Communist world did some things badly and some things well.... What it did well was education.” Some would argue that this picture is too idyllic; the reality was not so bright when seen from the inside — at least not in Poland. But it is very kind of Tom anyway.

with the state of the art in information technology. Today, there is a visible trend in many IT organizations to quickly learn skills that are critical for the current needs of the Polish IT industry. Academic curricula are being updated to accommodate business-oriented software development issues, and there is great demand for transfer of skills services — thousands of IT professionals are being trained or retrained every year in areas such as project management, analysis, design, and modern software architectures.

The market, while still learning the term “competition,” is looking at IT in all aspects of benefits it can potentially deliver — from cost containment, through business efficiency, up to creating business value. There are entire industries that need to dramatically grow their supporting information systems to match the standards established by international organizations. Such efforts are typical in financial services, banking, insurance, and retail organizations. The picture is complemented by major IT investments in the restructured public sector, such as information systems for State Railways, Customs, the Tax Office, or Social Security. The bad news is that this enormous and still-growing demand for information systems creates an equal demand for skilled resources. The good news is that building most of the systems from scratch gives countries such as Poland, the Czech Republic, and Hungary a unique opportunity to build their IT infrastructures using not only the latest technologies, but also trying to avoid the patterns of failure that have been so often exhibited by IT organizations in Western Europe and the US.

This does not mean, unfortunately, that Central Europe is full of technically superior developers and enlightened, risk-aware managers. Most of the straightforward technical skills are there — no problem with

using major RDBMSs and popular client-server tools on common Unix or NT platforms. Formal application design and analytical skills are developing quickly, although it usually takes time before neophyte analysts and designers get enough experience to be able to pragmatically apply modeling tools and techniques. The higher-level skills of “architectural” thinking in systems design are not so common, and they build up slowly. Most Polish organizations do not have any kind of IT strategy or documented IT implementation plan.

Quality- or risk-oriented management culture is fairly rare, and in most cases it must be implanted in IT organizations or project teams from the outside in the form of a project management audit or mandatory methodology requirements. The problem of proper management is becoming more and more visible, but there is all too much evidence that the Polish IT industry is not seizing the opportunity to avoid some well-known and well-publicized software project risks. Polish IT managers are still more willing to bravely take a risk than carefully manage it.

To summarize, IT markets in Central and Eastern Europe represent a mix of skills that are well suited to global software development. They are rich in technical skills, but not so rich in skills that require a significant experience component. This component will have to be supplied externally in most cases.

### **WILL BONNIE FLY OVER THE OCEAN?**

Identification of the potential workforce (or skill-force) is probably the simplest step in organizing the global software development project. It is certainly much easier to identify the possible participants of such a project than to transform them into well-organized, effective development team. The organiza-

tion model adopted for a global development project needs to cope with all the usual difficulties found in any project plus some specific issues stemming from the distribution and cultural heterogeneity of the team. There are more things that have to be effectively shared, communicated, and controlled on a large scale.

Among the things that must be shared are a common development technology (including a methodological framework), a common delivery and communications infrastructure, and a common vision of what needs to be achieved and how individual achievements relate to the goals assigned to the whole development process. While sharing common technology seems to be quite a simple thing to achieve, sharing a common vision and communicating goals are difficult enough even in homogeneous project teams. Individual differences of values, cultural habits, and financial expectations can make it very difficult to build a “motivation platform” that can drive forward the progress of a global project in a consistent and controllable manner.

Not very long ago, the ultimate ambition of many Polish IT people was to be hired as programmers by some international company, either to work in Poland or — even better — abroad, in the “real” world. Many have traveled abroad to get more challenging jobs, learn new tools and technologies, and earn better money. But today, the challenges are all here, on our own soil. Year 2000, ERP implementations, mission-critical systems, data warehouses, and e-commerce are on the agendas of IT teams in Poland as much as they are on the agendas of their Western colleagues. To get a skilled person from Poland or the Czech Republic and entice him or her join a global development team abroad, one has to offer some really attractive working conditions, salary, and benefits,

plus the opportunity to learn significant new skills — usually high level or managerial. All this does not suit the cliché of “cheap Eastern programmers” very well.

One could conclude that since there are so many interesting job opportunities available locally and people are not eager to leave the country to work in an international environment, it makes little — if any — sense to look for partners for global development in the countries of the former Eastern Europe. That is not necessarily true. I believe that this market is an excellent place for a development partnership as long as what you are looking for is teams or institutional partners rather than cheap, skilled individuals.

Organized development teams, in either formal or informal companies, have a number of advantages. They can appreciate the opportunity created by participation in a global development effort much more than individuals. While companies add margin to services, the total cost of finding, recruiting, training, and keeping a number of individuals can be significantly higher than the cost of building a relationship with a good company. A company is also more likely than individuals to be motivated to adopt the standards required by a global development effort. For most mainstream tools and technologies, you will find many companies with basic skills and infrastructure in place already. Finally, companies take on their shoulders part of the management and communication overhead. And this brings us to an important issue. While many Polish IT organizations are more and more comfortable with modern tools, design methodologies, and architectural patterns, a significant skills gap usually occurs in the area of management practices. To have a well-performing partner in Poland, the Czech Republic, or Hungary takes some effort and investment in introducing project

planning and control, quality assurance, and (arguably the most important) the soft skills of leadership, motivation, and group work.

### USE THE WEB, LUKE

With some 2.5 million active Internet users, Poland might be considered a reasonable place for virtual teams developing software over the Web. Connecting to the Web is not a problem, and the associated costs, although still shaped by the monopoly of state-owned telecom companies, are reasonable. Throughput will be also found sufficient for typical applications, such as sending messages and project deliverables in the form of computer files. The situation looks similar in other countries in the region. It is therefore a reasonable assumption to use the Web as a communications backbone linking local development teams within a global project.

Possible uses of the Web range from simple e-mail, to a virtual project war room that displays project-relevant information, progress data, and methodology tutorials and serves as a requirements or issues management environment, on up to servers that automatically perform some routine tasks, such as quality checks or localization of software components. The stress should rather be on communication, integration, and knowledge management, which will help turn a distributed, culturally diversified team into a community of knowledge workers built around project goals.

Obviously, no Web-based means of communication or information sharing can eliminate the need for human interaction. The Internet enables the communication, but people are still required to make communication happen and make it effective. There is an enormous amount of information that humans normally exchange by means other than e-mail. If this nonverbal information is

missing, the risk of misinterpreting requirements, assuming the wrong priorities, or misunderstanding motivating factors is very high. This is another place where managing teams (companies) rather than individuals helps. Companies tend to have much simpler and more uniform motivations than human beings. They may also resolve — by “encapsulation” — the problem of effective day-to-day communication based on a shared project- and process-related knowledge.

### CONCLUSION

In conclusion, the Polish IT industry has the potential to provide the delivery capability that many international companies will find appropriate for their development efforts. However, there are also many reasons why approaching the Central European region as just a resource pool may be not the best strategy for global software development. The main reason is the fact that the local market is full of opportunities for skilled IT workers, thus invalidating most of the simple approaches for getting good people “on board.”

Contracting with teams rather than individuals and using them to do well-defined subprojects or work packages is the approach that will likely offer the most benefits to both parties. Organized teams are easier to manage, and they can share the overheads and risks of a project. Organized teams may be motivated to work for a global project if they had access to a skills transfer program that would build their knowledge capital and give them a significant advantage in their future local market activities. The transfer of skills should focus on high-level issues such as quality and risk management, software architectures, and effective group work. These are the main enablers of effective “team employment.”

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