

## Easier, Faster and More Economically! Things We Have Never Done Before

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Ladies and Gentlemen,

The first Congress of e-Economy in Poland is held in the period where the enormous progress in the Information and Communication Technology (ICT), accompanied by a decline in transport costs and reduced commercial barriers, has resulted in a radical acceleration of the globalization process. Some of us go even further and define the process straightforwardly as the third industrial revolution<sup>1</sup>, creating the vision of remote medical services such as, for instance, x-ray pictures taken in the United States and interpreted by a physician in India or Australia. New technologies go beyond borders and reach further than the human imagination. Nearly half a million of Americans have their tax returns completed by tax consultants in India<sup>2</sup> the voice coming from the microphone in some McDonald's drive-throughs belongs to a person sitting a few thousand miles away, table bookings in certain restaurants are also made in this way. This phenomenon, called *outsourcing* and *offshoring*, has radically increased labour efficiency, improved the quality of products and services, and reduced prices. Even consumer satisfaction surveys in the United States are often conducted by call centres located in India.

The progress in the ICT is also one of the main factors explaining why the American economy has developed at a far faster rate than the economy of the euro area in the past ten years. The research results available<sup>3</sup> show that labour efficiency in retail and wholesale trade in the United States has grown many times faster than in Europe, *inter alia* due to the use of the ICT in those sectors. The American Wal-Mart, the biggest global supermarket network, has implemented the new *radio-frequency identification* technology (RFID) for the purpose of further enhancement of the network performance and reduction in the logistics-related costs. So will have to do most of Wal-Mart's suppliers.

The above examples demonstrate the way that the progress in the e-economy facilitates global optimization of the manufacturing process, this contributing to a rapid growth in efficiency, improved quality, and reduced prices, and thus offering far-reaching benefits to consumers.

It has turned out that although Poland is at the bitter end when it comes to readiness to implement the e-economy, the position of the Polish economy is high in most of the rankings concerning the investment or offshoring<sup>4</sup> attractiveness, whereas our chief advantages include a favourable location, a large market, and well-qualified and relatively cheap workforce. Therefore, owing to the process of globalization of manufacturing and services, Poland may stand a chance of rapid growth, provided that our chief shortcomings, including the poor advancement in e-economy and e-administration, are remedied. We cannot afford inertia for other countries are quickly building modern e-economy.

In the new global economy, the public sector must be active and innovative, and it must support its citizens and business community. By way of illustration, the National Bank of Poland, as part of its statutory tasks and in cooperation with its partners in the financial sector, has created a modern payment infrastructure for large-amount (the SORBNET system operated by NBP) and retail (the ELIXIR system operated by the National Clearing House — KIR S.A.) payment systems, thus ensuring provision of safe and efficient services related to settlement of both types of zloty payments. The scope of services for the banking sector was expanded in 2005 to include two new types of payment systems for settlement of euro-denominated (domestic and cross-border) transactions, namely: the SORBNET-EURO system, processing mainly large-amount (interbank and customer) payments, and the EuroELIXIR system, which provides cheaper and more rapid settlement of retail payments in euro.

The SORBNET-EURO system facilitates transfers of payments to the TARGET system, thus ensuring real-time processing of cross-border payments between banks in Poland and those in the EU Member States. Apart from Poland, only three EU Member States outside the euro area (i.e. Denmark, Sweden and Great Britain) have introduced similar changes to the domestic payment system and ensured a link to the pan-European infrastructure. No other new EU Member State has implemented such changes to-date.

The ELIXIR system, operated by KIR S.A., is one of the state-of-the-art payment systems in the European Union. It is marked by very frequent settlements (three settlement sessions a day at the National Bank of Poland), which ensures a brief settlement cycle and a closure thereof within a single working day. The exchange of payment orders between banks is effected only electronically. In addition to the ELIXIR system, KIR S.A. has recently launched the EuroELIXIR system (in January 2006, 34 banks including the National Bank of Poland and nine out of ten largest Polish banks participated in the system), designed to settle euro-denominated transactions, both domestic (with no amount-related limitations) and cross-border ones (up to 12,500 euro and, as of January 1, 2006, up to 50,000 euro). In the case of cross-border transactions, this can be achieved due to the National Bank of Poland's participation in the STEP 2 and EURO 1 systems.

Despite a relatively high level of development of the Polish payment infrastructure, it is hardly used by individual consumers. Poland has witnessed a significant progress in the development of e-banking over the past few years; however, compared to other EU Member States and the neighbouring countries, our position is still weak, taking into account the number of customer bank accounts and the number of non-cash payments by payment cards. For instance, in terms of the number of transactions at POS terminals per one card issued in Poland, we rank extremely low vis-à-vis other EU Member States. In 2004 in Poland, approx. 11 transactions were executed using one payment card, whereas in the EU Member States, more than 35 transactions per one card were recorded.

A detailed discussion of these issues and proposals of potential activities aimed at the spreading of non-cash payments will be delivered by Mr. Adam Tochmański, Director of the Payment System Department, in the second part of today's session. There is no doubt, however, that a strong link exists between the development of the payment system and the e-economy. Efficient and modern payment infrastructure is required for settlement of transactions in the e-economy, whereas the volume of those transactions will grow only in the environment of rapidly developing e-economy and e-administration that support one another.

I have mentioned previously the economic transformations related to the advancing globalization. It is crystal clear that administration does not remain indifferent to the globalization forces. Although the functions of administration have retained their objectives as defined in a traditional nation-state — creating the strategy and conducting the policy, establishing the law and regulations, and providing services to citizens — their scope has

already changed. To give an example, determining the strategy and conducting the policy cannot take place without participation of specialists in a given field from outside the public sector, the law and conditions of operation must be aligned with the trends brought in by globalization, and the provision of public services must take into account the growing needs of citizens, efficiency maximization and the chances that the use of practices of the private sector gives. Hence, the abovementioned services are becoming more and more decentralized, based on public and private partnership, and privatized.

The development of information and communication technologies is another factor that has an impact on the functioning of the state. Firstly, it facilitates the switch from one-way communication channels to interactive two-way communication, which leads to, *inter alia*, greater activity of citizens and business community and better adjustment of services provided by the public sector to the needs of citizens. Secondly, the growth of the ICT sector contributes to increased innovation demonstrated by the public sector worldwide, in other words, altered procedures employed by the public sector gradually cease to be of a reproductive nature, and the public sector becomes one of the leaders of innovation in the services sector. Consequently, the methods of functioning of the state and performance of its functions are irreversibly heading towards the use of technologies and assume the form of e-strategy, e-policy, e-regulations and e-services.

Therefore, we are facing the e-reality in which e-administration has its liabilities towards e-economy. In the past, the public sector used to follow the private sector and apply the best methods of organization management, customer relations maintenance and management or use of technologies, which all lead to increased efficiency of activities. In the contemporary global e-economy the public sector has a much more difficult and demanding role to play. First and foremost, this role consists in the creation of an environment in which citizens, business community and the entire economy may succeed on the global markets of products, services, labour, capital and knowledge. Efficient performance of this role calls for significant changes in the functioning of e-administration, as compared to the traditional public administration.

E-administration must creatively use technology to provide better services to citizens and business community, by offering them a wider choice (e.g. of ways of communicating with public offices) and options of customization of services, accompanied by mitigation of costs. E-administration must alter organization of its work and communication among public offices and public administration authorities. This can be achieved e.g. by taking over the burden

of information management from customers (citizens and business community). E-administration must set the directions of development of e-economy through creation of strategies, regulations and a system of incentives.

The state, acting as a regulating body, can define the standards of operation by imposing on the citizens or a group of “better prepared” citizens the obligation to use electronic media of communication. In the United States and the Netherlands, for instance, large enterprises are obliged to submit e-tax returns.<sup>5</sup> In France, on the other hand, the student and academic community have been viewed as an engine to launch the new standards. Therefore, applications for scientific grants are accepted solely in the electronic format.<sup>6</sup>

The imposition of obligations is one of the methods to popularize the interactive communication methods. However, its limited efficiency must be taken into account in situations where citizens are not ready or reluctant to change their habits. Research shows that even in countries on high positions in the rankings of access of individuals to the ICT, certain restraint is observed in the use of e-administration services offered to the citizens. In Denmark, for instance, it has been discovered that the reason for such restraint lies in the lack of common understanding of personal benefits that a user of e-administration services may enjoy.<sup>7</sup> It points to a need for improvement of related education and information campaigns. Denmark is not an exception in this respect. Promotional campaigns encouraging the use of the electronic media of communication with the public administration are being developed in many countries; some countries have already launched such activities. In Singapore, a website has been launched to enable payments for almost every public office and government agency in the country, and its users participate in weekly and monthly prize draws.<sup>8</sup> In Dubai another interesting solution has been employed, whereby a loyalty programme for users of online public services has been launched. Its first step includes a ten-hour training on the use of online services. The authorities anticipate to have trained 10,000 citizens and civil service employees by the end of 2006. Upon accomplishment of the training, the citizens are provided with a certificate and a loyalty card. Every time they use online services, they score points, which can be later exchanged for preferential rates in banks, airlines and other programme partners.<sup>9</sup>

Online services available in various countries worldwide are highly diversified. They are all designed to best satisfy the needs of citizens and enterprises, and at the same time to enhance the operational efficiency of the administration and the public sector. Of the long and

constantly supplemented list of online services offered, at least a few solutions are worth mentioning here. For instance, tax offices in Sweden and Estonia provide citizens with their annual tax amounts (calculated on the basis of all the information received during the year), to be confirmed via text message, over the phone (via IVR<sup>10</sup>) or online.<sup>11</sup> The Finns, on the other hand, having changed their place of residence, do not have to visit the office personally, but simply log on to the website and enter the new data. For confirmation of authenticity, the certificate contained the mobile phone SIM card is used.<sup>12</sup> Short Message Services are also used in the case of many other public services — in the Philippines, crime victims are able to monitor the progress of investigation using text messages. In Singapore, citizens can order the service of SMS-reminders about dates of payment the road tax, return of books to the library or extension of the passport expiry date. They can also receive medical examination results using SMS.<sup>13</sup>

The public sector faces a great challenge of provision of services aimed at the comfort of citizens (customers) rather than at the comfort of clerks, as it used to be for many years. It entails not only the necessity to change the way of communication with citizens, but it also forces public offices to adjust their internal processes and enhance their cooperation. As a consequence, projects such as “any door is good” are launched, whereby each office assumes the responsibility to provide an answer to a received query, even if the query goes beyond its authority. Another project entitled “one case — one contact point” is operated in many countries, under which registration of a new company is possible online, by filling all the necessary forms (for registration, tax, statistical etc. authorities) available on a website and authorizing them by means of the electronic signature.

Integration of all the “back office” functions and processes has enabled Estonia to hold the world’s first online elections. In October 2005, more than 9000 Estonians cast their votes in e-elections.<sup>14</sup>

Customer-oriented attitude has induced the public sector to open itself to the public and private partnership solutions. One of its manifestations in Singapore is the ability to apply for a passport at the photo-shop, immediately after the passport picture is taken.

Another significant factor, which stimulates the growth of both e-administration and e-economy, is the penetration of innovation and search for new applications for technologies in use between the private and public sectors. For instance, the abovementioned RFID

technology was initially used to mark goods in transport and storage, as a technique more advanced than the bar code. China, which has implemented the RFID standard as a result of the efforts of Wal-Mart, the world-largest retailer, is currently considering its use in blood banks to track the location of blood batches. Another use of the RFID technology — also in the health care sector — is currently tested at the orthopaedic ward of the Singapore General Hospital. For the duration of hospitalization, the patient receives a band that facilitates tracing the patient’s location, whereas a built-in thermosensor measures the temperature without bothering the patient. Portable devices provide the nurses and physicians with an ongoing access to information on the patients. Moreover, there is a possibility to integrate the system with monitoring of the heart action and blood pressure<sup>15</sup>. A completely different, although slightly controversial, use of RFID has been found at the prosecutor’s office in Mexico, whereby a chip is implanted under skin of employees that have access to secret documents.<sup>16</sup> It is a tool of both access authorization and control.

Taking a closer look at the development of public services in various parts of the world, one can get an impression that e-administration is well-present in everyday life, has been well-organized, thoroughly analyzed, and in a conscious and consistent way improves the quality of public services in highly developed countries in Europe and North America, whereas in the developing countries of Asia, a higher growth momentum and courage in implementing innovative solutions can be observed. The progress made by the Asian countries is consistently manifested in the rankings, where, despite the use of various methodologies, at least two of the following countries — Singapore, Taiwan, South Korea and Hong-Kong, always rank among the world leaders. The table below sets forth a ranking of selected countries according to the index of readiness to implement e-administration<sup>17</sup>, developed by the UN.<sup>18</sup>

**Table 1. UN e-administration implementation index, 2005**

No.	Country	Index
1	USA	0.9062
2	Denmark	0.9058
3	Sweden	0.8983
4	Great Britain	0.8777
5	South Korea	0.8727
6	Australia	0.8679
7	Singapore	0.8503

<b>8</b>	Canada	0.8425
<b>9</b>	Finland	0.8231
<b>10</b>	Norway	0.8228
<b>11</b>	Germany	0.8050
<b>12</b>	Netherlands	0.8021
<b>13</b>	New Zealand	0.7987
<b>14</b>	Japan	0.7801
<b>15</b>	Island	0.7794
<b>19</b>	Estonia	0.7347
<b>27</b>	Hungary	0.6536
<b>29</b>	Czech Republic	0.6396
<b>31</b>	Mexico	0.6061
<b>36</b>	Slovakia	0.5887
<b>37</b>	Cyprus	0.5872
<b>38</b>	Poland	0.5872
<b>39</b>	Spain	0.5847

Source: „Global E-Government Readiness Report 2005. From E-Government to E-Inclusion”, United Nations, 2005

Poland ranks at the end of the fourth ten, far beyond Estonia, Hungary, the Czech Republic, Mexico and Slovakia. Compared with other EU Member States, we rank extremely poor<sup>19</sup> when it comes to our ability to effect settlements with tax offices (submit tax returns and effect payments), obtain a driving license or register a vehicle online. We have been assigned the last position among the EU Member States due to the lack of possibility to register a company online — we cannot even download the forms from the website. For a contrast, in seven EU Member States there is already a possibility to register a company online, without any additional paper-based procedures. The only area in which Poland meets all the criteria to catch up with the leaders, is the ability to submit customs declarations online. This service is available at top quality in a decisive majority of the EU Member States and only six countries provide it at a level lower than maximum.<sup>20</sup>

It is worth noting that the purpose of e-administration expansion is not to rank high but to bring measurable and specific benefits to citizens, companies, the public administration itself and the entire economy. The research conducted by the European Commission shows that EU citizens save approx. seven million hours yearly given their ability to settle the income tax (submit tax returns or effect payments) online. If such a service were commonly available and exploited, the amount of time saved by EU citizens in connection with the income tax

settlement could hit 100 million hours yearly. It has been estimated that each transaction online reduces the amount of time spent for its execution by more than an hour.<sup>21</sup> We can imagine the scale of possible savings if we consider the data published by the United Arab Emirates, which read that 45,000 transactions monthly are executed online only in Dubai, whose population slightly exceeds one million.<sup>22</sup>

The benefits of e-administration development can also be demonstrated in financial terms — it has been estimated that companies in the European Union save approx. 10 euro under VAT on each online transaction<sup>23</sup>, whereas the research conducted for Trade-Net in Singapore shows that time of issuing the commercial permits online, reduced to one minute, has enabled business people to save approx. 1bn US dollars.<sup>24</sup>

The more revolutionary the services are, the more advanced the technology and the greater back office integration of databases are. Without going into technical details, it means that enhanced quality of public services coincides with the increased risk related to the protection of privacy and commercial information. There is no doubt that confidence of the society is a key element of e-administration development because it has a significant role in determining the demand of citizens and business community for e-administration services. Lapses and mistakes made in the past by administration authorities in various parts of the world prove that upon designing and implementation of e-administration solutions, the safety of data and information as well as the ability to ensure privacy must be among the issues of top priority. In some countries, they have actually been incorporated in the vision of e-administration development. So it is in Singapore, where the vision of e-administration development has been based on three basic areas and each of them contains elements related to safety, privacy and confidence.<sup>25</sup>:

1. Networked Government as the basis for development. This administration network is to put into practice the motto: “Many offices, one administration.” It must also be effective, efficient, safe and adequate to the needs.

2. Delighted Customers as a manifestation of the focus on satisfying customers’ needs. Within this area, public e-services must be convenient and easy to use, they must go beyond the borders of organization and respect customers’ privacy.

3. Connected Citizens is an area that supports active attitudes demonstrated by the citizens. The area is best summarized by the following catchwords: Citizens as stakeholders, creation of communities and greater confidence and security.

A clear and publicly known vision is for sure a key element in the development of e-administration, as it demonstrates the will and engagement of the governing bodies, sets the destination and indicates the direction to reach it, and motivates all the citizens, business community and clerks to undertake amicable and creative activities.

Consequently, the following questions arise:

- Do we have a vision of Poland in, for instance, 2015?
- Does the public sector ask the citizens or business community whether they are satisfied with the level of services it provides?
- Do we encourage the Poles to assist in making public services more efficient?
- Do we have a system of financial and other incentives to encourage the public servants to assume relevant attitude so that the citizens and the companies are satisfied with the public services provided?
- Do we use properly the joint potential and synergy of the private and public sectors including, in particular, the financial sector, to build an e-economy able to meet the requirements of the XXI century?
- Are we ready to change the way we act and do the things we have never done before?

If the response to most of the questions is “no”, it means that we must jointly undertake activities to reduce the distance between the e-economy of Poland and that of other countries. I hope the first Congress of e-Economy will inspire us to undertake such actions.

Thank you for your attention.

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<sup>1</sup> A.Blinder “Fear of Offshoring”, CEPS Working Paper No. 119, December 2005.

<sup>2</sup> This and many other examples are available in “The Word is Flat, A Brief History of the Twenty-First Century” by Thomas Friedman published in 2005.

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<sup>3</sup> B. van Ark “Europe’s Productivity Gap: Catching Up or Getting Stuck?,” the article prepared for the International Symposium on Productivity, Competitiveness and Globalisation, Banque de France, Paris, November 4, 2005; R.McGuckin, M.Spiegelman, B. van Ark: The Retail Revolution - Can Europe Match U.S. Productivity Performance?,” The Conference Board, March 2005; and “Deepening the Lisbon Agenda, Studies on Productivity, Services, Technologies,” the report prepared by the Federal Ministry of Labour and Economy of Austria, published in January 2006.

<sup>4</sup> For instance, the report by A. T. Kearney’s consulting company “Offshore Location Attractiveness Index, Making Offshore Decisions” published in 2004. Three categories of indices were evaluated: the financial structure (labour, infrastructure, tax and regulation costs) with a weight of 40%, the skills and availability of employees (cumulated experience in business activities, ability to easily employ the staff, command of foreign languages and qualifications, social indices, e.g. the rate of unemployment) with a weight of 30%, business environment (state’s conditions, infrastructure, ability to adapt to differed cultures and the protection of intellectual property) with a weight of 30%.

<sup>5</sup> “Leadership In Customer Service: New Expectations, New Experiences”, The Government Executive Series, Accenture, 2005.

<sup>6</sup> Ibidem.

<sup>7</sup> “OECD Government Studies. Denmark,” January 2006.

<sup>8</sup> „Global E-Government Readiness Report 2005. From E-Government to E-Inclusion”, United Nations, 2005.. The payments can be effected by logging on to My.eCitizen portal at <http://my.ecitizen.gov.sg>.

<sup>9</sup> „E-government today and tomorrow”, Public Sector Technology & Management, Vol. 3.1, January/February 2006, s. 60.

<sup>10</sup> IVR – Interactive Voice Response – a phone technology that provides the user with an ability to contact a database over the phone with tone dialing function. Thus, the user can obtain requested information from the database or enter relevant data to the database.

<sup>11</sup> “Leadership In Customer Service: New Expectations, New Experiences”, op. cit., Ain Järv presentation entitled “e-Economy and e-Government in Estonia” held on January 5, 2006 at the National Bank of Poland.

<sup>12</sup> The system was launched in mid 2005 for the customers of the second biggest mobile telephony operator in Finland – Elis. More information can be found at [www.pstm.net/article/index.php?articleid=707](http://www.pstm.net/article/index.php?articleid=707)

<sup>13</sup> <http://My.eCitizen.gov.sg>.

<sup>14</sup> „eGovernment In the Member States of the European Union”, IDABC, November 2005.

<sup>15</sup> “RFID tracks fever cases in Singapore hospital”, [www.pstm.net/article/index.php?articleid=788](http://www.pstm.net/article/index.php?articleid=788).

<sup>16</sup> “You will not enter without Chip. ID under the Skin,” Gazeta Wyborcza, February 16, 2006.

<sup>17</sup> The UN index of readiness to implement e-administration comprises the ability (readiness) and willingness (efforts) of the countries to: firstly, use e-administration solutions to ensure ICT-based development; secondly, use ICT to promote access to e-administration among citizens and expand their share in co-creation of the State, i.e. in the decision making process. Therefore, the index covers both evaluation of website development and access descriptions, e.g. the infrastructure or the ability to use it. The e-administration readiness index is composed of the three indices, namely the website index, the telecommunication infrastructure index and the human capital index. More information is available in “Global E-Government Readiness Report 2005. From E-Government to E-Inclusion,” United Nations, 2005.

<sup>18</sup> Ibidem.

<sup>19</sup> The service evaluation methodology used in the research conducted by the European Commission consists in the creation of a five-grade scale used to define the level of services provided: LEVEL 0 — no website available to the public or inability to assign an existing website to any of the levels 1–4 (0%-24% on the chart); LEVEL 1 — INFORMATION — the information necessary to launch the use of a given public service is available online (25%-49% on the chart); LEVEL 2 — ONE-WAY INTERACTION — a website available to the public offers the ability to download a form that, after it has been completed on paper, can be used to launch the use of a given public service (50%-74% on the chart); LEVEL 3 — TWO-WAY INTERACTION — a website available to the public offers the ability to launch the use of a given public service by completing and sending an electronic form.

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Therefore, authorization of the person intending to use the service is necessary (75%-99% on the chart); LEVEL 4 — FULL ELECTRONIC CASE SETTLEMENT — a website available to the public offers an entire public service online, including the stage of decision-making and the delivery thereof. No other paper procedures are necessary (100% on the chart). More information is available in Online Availability of Public Services: How is Europe Progressing?. Web Based Survey on Electronic Public Services. Report of the Fifth Measurement,” Capgemini for European Commission, October 2004.

<sup>20</sup> Ibidem.

<sup>21</sup> Top of the Web. User Satisfaction and Usage Survey of eGovernment services,” December 2004.

<sup>22</sup> “Public Sector Technology & Management,” Vol. 2.2, March/April 2005, p. 14.

<sup>23</sup> “Top of the Web – User Satisfaction and Usage Survey of eGovernment Services,” December 2004.

<sup>24</sup> the research conducted by IBM Corporation, more information can be found, for instance, in “Paperless Trading:” Benefits to APEC”, Ministry of Foreign Trade and Economic Cooperation, 2001.

<sup>25</sup> [www.egov.gov.sg](http://www.egov.gov.sg).