Digital divide and welfare in the EU New Member States

By Lucyna Machol-Zajda, Zofia Rutkowska and Gertruda Uscinska, edited by Ursula Huws

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ABSTRACT

This report has been produced by the restructured Labour Market Changes and Welfare Perspectives in Europe (LAW) project which aims to examine the scope of labour market restructuring in the development of a European Information Society and the challenges this poses to European welfare systems.

In Workpackage 1 of the second phase of the project, the research partners carried out a summary of the changes taking place in European labour markets in association with the introduction of ICTs, the ‘winners’ and ‘losers’ from this process, the characteristics of the welfare systems operating in each of the five countries under study and the ways in which they have succeeded (or failed) to adapt to the restructuring of labour markets. It also summarised the policy debates about the future of welfare systems in the light of the European Lisbon agenda, firstly by conducting an overview of the European policy debates and then by following debates in each of the five countries under study.

Workpackage 2 analysed the ways in which each national welfare system currently addresses the needs of the groups at risk in the current restructuring of labour markets, the national policy debates and future plans. It focused particularly on ways in which ICTs can make a positive contribution to improving the delivery of welfare services and increasing social inclusion.

Workpackage 3 has taken this a stage further, adopting a case study approach to investigate good practice in the use of ICTs to address these challenges in the participating countries.

This report begins by providing an overview of EU policy on the Digital Divide in New Member States and the progress made towards achieving goals of ICT use and access. It then goes on to investigate the case of Poland in greater detail, with a particular focus on initiatives developed to address the Digital Divide, to introduce eGovernment and to use ICTs to improve the functioning of labour markets and welfare systems there, drawing general conclusions which have some relevance for other New Member States.

It is one of three reports produced as part of this workpackage. The other two reports focus respectively on eGovernment and on Life-long learning.
CONTENTS

1. Introduction .........................................................2
2. The Context ............................................................4
3. Poland's Position In Terms of ICT Infrastructure and Information Society Development ....6
4. The Digital Divide in Poland ........................................13
   4.2 The Digital divide in enterprises ................................13
   4.3 the Digital Divide in households ...............................13
5. ICT Development Activities in Poland ................................15
   5.1 Institutions ........................................................15
   5.2 Documents .......................................................16
   5.3 The Debate on the Mitigation of the Digital Divide .................18
6. The Digital Divide and Welfare .......................................20
   6.1 ICT and the labour market .....................................21
   6.2 ICT in the social insurance system ............................23
   6.3 Reforms of the social security system and ICT ...............25
7. Conclusions .........................................................30
1. INTRODUCTION

The LAW project has been funded by the European Commission under its Information Society Technologies Programme to examine the impacts of Information and Communications Technologies (ICTs) on labour markets and on welfare systems in Europe.

In the first phase of the project’s work, national teams in France, Italy, Germany, Poland and the UK carried out an analysis of the ways in which national labour markets are being restructured in the context of technological change, the groups at risk as a result of these developments in each country, and the challenges posed for welfare systems as a result. In a second phase, the LAW partners carried out country studies focusing on the national welfare systems of each of these countries, with the addition of Sweden.

These country studies carried out an overview of the scale of the challenge posed to each national government by the groups at risk, including the numbers of claimants for each relevant benefit, the cost of providing these benefits and long-term trends.

Having identified the challenges, the studies then went on to summarise the ways in which these challenges are being met in each country, including national debates and policies about the ways forward. Here, there was a particular focus on the role played by ICTs in developing solutions to these welfare challenges, by improving information about and access to welfare services, by reducing the costs of delivery, or by developing entirely new initiatives to address problems of social exclusion.

Finally, the research partners carried out a series of case studies to identify innovative examples of the successful use of ICTs in challenging the Digital Divide, in improving the delivery of welfare services and in tackling social exclusion.

This subject of this report is initiatives on tackling the Digital Divide in New Member States, with a particular focus on labour markets and welfare systems.

To have carried out a detailed study in each of the ten New Member States would have been far beyond the resources of the project, given the enormous diversity of these states in terms of their economic, social, political and cultural histories, institutional legacies and industrial and demographic structures. It was decided therefore to use a two stage approach.

In the first stage, existing survey results and other data sources were analysed in order to produce a comparative picture of progress towards a knowledge-based society. This comparison was a double one, in which the New Member States in Central and Eastern Europe were compared both with the ‘old’ member states and with each other. This was essentially a quantitative exercise and no attempt was made at deeper qualitative analysis.

In a second stage, a much deeper analysis, including a qualitative dimension, was carried out in Poland, which was taken as a representative case. Of course, given the diversity of the New Member States, no individual country can be said to be ‘typical’ in any general sense. However it was felt that Poland illustrated a broader range of both the challenges and the opportunities faced by all the Member States more completely than other case would have done. This is for several reasons:

Poland has by far the largest population of all the New Member States. This means that it faces a ‘challenge of scale’ in all the economic and social problems that it is confronted with. Problems that exist to some extent in all New Member States may be so limited in some countries, because of their small size, that they are difficult to identify from the statistics and may be susceptible to relatively informal or one-off solutions. In Poland, the scale of each problem is likely to be such that it needs to be formally addressed by policy-makers.

One particularly important dimension of this challenge of scale is the very large rural population, with a high risk of economic and social marginalisation.
(as well as exclusion from access to infrastructure) during a period of economic restructuring. Other New Member States also have a problem of rural economic exclusion too. It could, however, be argued that Poland presents the most intractable problem here. It follows from this that solutions that work in Poland are likely to be exportable elsewhere.

The ‘problem of scale’ is also particularly evident in relation to Poland’s huge unemployment problem. High unemployment is unfortunately typical of most New Member States however it is strongly magnified in Poland by the size of the population affected.

Poland was historically significantly in advance of most other Member States in its progress towards economic liberalisation and the development of a market economy. It thus presents a more developed range of institutional and policy approaches than other New Member States whose modernisation is more recent.

In the modernisation of its pension system, Poland has developed a state-of-the-art eGovernment solution which is more advanced than those in most ‘old’ member states as well as those of other New Member States. It therefore represents an extreme in terms of good practice, as well as an extreme in terms of some of the challenges it is faced with.

Finally, it was Poland that took the lead among the New Member States in developing the eEurope plus action plan and other initiatives aimed at developing a knowledge-based economy. It can therefore be seen as more likely to have ‘home-grown’ information society policies, rather than taking them ‘off the shelf’ from elsewhere for local adaptation. This makes it a particularly fruitful subject for analysis in the context of the LAW project’s goals.

In many ways, therefore, Poland represents in microcosm a broad spectrum of both the challenges and the solutions facing New Member States in the transition to a knowledge-based society in line with the Lisbon goals of combining economic efficiency and competitiveness with employment creation and social inclusion.

This report therefore presents the results of the research carried out in Poland on tackling the Digital Divide, as an example of a New Member State facing major social and economic challenges in catching up with the older Member States of the European Union. A particular focus of the report is to present the question of Digital Divide in Poland, a New Member State of the European Union with special focus on the social security issues.

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1 In this paper ‘social security’ and ‘welfare system’ are used with the same meaning
2. THE CONTEXT

Poland as one of the new European Union member states has to face a variety of challenges connected with accession to European Union. One of those challenges is building an Information Society. Whilst this is a specific goal of European Policy, it should be noted that ICT development and wide access to ICT in society was already a Polish government policy objective also independent of EU accession.

The most important condition of building an efficient Information Society is wide digital inclusion: ensuring that citizens, enterprises and institutions have access to information - using ICT - in various spheres of socio-economic reality. Welfare system, among others, constitutes an important element of public institutions and it is very important to secure access to welfare information and welfare services using ICT instruments. The Digital Divide would exclude certain groups and individuals from access to information and services in the field of welfare as in other fields, therefore in this field activities should be undertaken to counteract this exclusion.

New EU Member States regardless of their national policies were put under the obligation to develop information societies within the framework of pursuing EU policy.

Pursuant to the underlying assumptions of the Lisbon Strategy, Europe should become overall more competitive in the global economy in the globalisation era. This requires the development of new knowledge-based economy as well as the coherence of European countries and regions. According to this definition, a prerequisite for improvement of economic position of Europe is the universal access of societies to a broad scope of information across a variety of fields. The general public (individual citizens and enterprises) should have quick access to training and education, and to the public administration and social security services. From a technical perspective, a prerequisite of the creation of an Information Society is the development of relevant technologies.

Technologies represent a necessary but not sufficient condition for this development. Also essential are legal, institutional, political and consciousness (mentality-based) solutions. All these drivers of Information Society development are interrelated.

Institutions after all cannot operate properly without appropriate legislation in place, whereas the appropriate legislation in turn will not be enacted without ‘political will’. Then to secure ‘political will’ the people responsible for policies must be aware of the significance and need to develop an Information Society.

While the access, primarily quick access, to widely understood information has a positive impact on economic and social development, the lack of such access may lead to the exclusion of individuals, regions and countries from participation in the development process. Then one can talk about the Digital Divide phenomenon. For several years now, the EU objective as well as that of the new EU Member States has been to achieve the development of an Information Society whilst avoiding a Digital Divide. A Digital Divide in the first place contradicts the EU’s cohesion policy. Therefore measures need to be taken to reduce the extent of Digital Divide.

For many years now in Poland diverse initiatives have been taken to develop Information Society. Undoubtedly these activities were accelerated and widened thanks to the accession to the European Union and consequent obligations.

Despite that, the position of Poland amongst the Member States in terms of development level of Information Society is not high. In this field there are barriers of various kinds and the Digital Divide phenomenon is clearly evident.

In the field of social security, of particular interest here, the Digital Divide manifests itself in the level of knowledge about social security as well as in the varied opportunities to take

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2 The basic documents, which form the cornerstones of all activities aimed at building information societies, have recently been the Lisbon Strategy and the Willem Kok Report of 2005 on the progress made to date (Facing the challenge 2004).
advantage of social security benefits. In Poland the data communications technologies in this field are still not used on a large scale. However, they are currently in the process of wider implementation. Therefore it is essential that in the future when these technologies will be widely applied universal access be provided in the field of social security so that also in this field the Digital Divide is prevented and curtailed.

The social security system includes various benefits granted because of old age, disability, sickness, accidents at work, poverty and unemployment.

This paper raises three issues at the borderline of social security and Information and Communication Technology (ICT): the issue of information and access to employment; the use of ICT in the reform of the social insurance system; and the application of ICT in the largest social security institution, viz. Social Security Institution (ZUS) - as a positive example of eGovernment operation.

Though job search does not fall directly into the social security benefits, it has a colossal influence on the living standards, especially in Poland - a country with very high unemployment rate. If one has found a job then she/he does not apply for social security benefits related to the jobless status or poverty. Benefits are not high, though, and therefore, job search facilitation plays a special role also in the context that social security system does not give appropriate protection against this risk.

In Poland, at the end of 1990s a radical reform of the social security system was carried out, with the largest changes made in the old-age pension system. The social security system reform would not have been possible without the application of ICT. One could suppose that the propagation of the application of ICT, as a result of the reform, in the business entities obliged to pay employee social security contributions owed to the Social Security Institution alleviated the Digital Divide in Poland. The social security reform forced the use of ICT, undoubtedly raised social consciousness about ICT significance and contributed to building an Information Society. Therefore in this report the social security reform has been discussed from the perspective of its ICT significance.

The application of ICT for the reform implementation created a need for rapid and precise flows of information between the Social Security Institution (ZUS) and contribution payers. For this purpose a special software program was developed called 'Płatnik' (Payer). In parallel, ZUS implemented a comprehensive customer relationship management scheme with a wide application of ICT. Here, we discuss the current status and prospects for the development of relationships with ZUS customers. The presence of a Digital Divide results in this case in inferior access to information about the system itself, rights to old-age pension benefits at expected levels and - in the near future - about hindrances for the digitally handicapped social groups in terms of applying for benefits they are entitled to.

Further sections of the report will discuss the Digital Divide in Poland at the macro level i.e. through international benchmarks and at the micro level - referring to individuals and enterprises, institutions and important documents with the aim to serve the purpose of Information Society development and to take the floor in public discussions on this topic. To provide a context for discussion, the background of selected issues concerning the impact of ICT on social security are also presented. It is argued that the presence of a Digital Divide also in this field has adverse impacts on the functioning of the overall society and individuals.
3. POLAND’S POSITION IN TERMS OF ICT INFRASTRUCTURE AND INFORMATION SOCIETY DEVELOPMENT

In order to present the background to Poland’s development of an information society, we begin with a summary of the available data.

One recent source is IAB Polska (Interactive Advertising Bureau) who prepared a report entitled ‘Internet 2004. Poland, Europe and World’. The report comprises major information about the Internet users in Poland and in the world, expenditures on Internet and e-commerce advertising.

The IAB Polska Report shows that the Internet is the fastest growing medium in the world. This is connected, among others, with favourable legislative changes, facilitating market development, and also with constant retrenchment of the installation costs and access charges, and consequently, rate of development of broadband Internet. In 2004 access to Internet had almost 813 million people world-wide. On a global scale the Internet leaders are Sweden (74 percent of Internet users) and the Netherlands (66 percent).

In Poland from December 2003 to December 2004 the number of Internet users exceeded one million. At present Internet access has 23.5 percent of Polish population. IAB estimates that in 2005 another psychological threshold of the number of Internet users will be trespassed. In terms of the number of Internet users Poland occupies 7th position amongst EU Member States - 8.9 M people at the end of 2004, however, given the percentage of Internet users in the total population Poland occupies 23rd position (Internet Word Status, December 2004). The graphs below illustrate the Poland’s position in the group of leading EU Member States and amongst 10 New Member States.

Figure 3.1 Number of Internet users ('000)

![Graph showing internet users by country](source, IAB Polska, 2004)

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1 IAB operates in the Polish Internet, technological and advertising markets since 2000. One of the objectives of the association is widely-understood education of the general public about the ways of using Internet.
According to the ITU (The Internet of Things - November 2005) in a report covering 75 countries that are the most advanced in Internet use, Poland occupies the 61st position (23.35 percent). Unfortunately according to this ranking Poland occupies the last position in the category of 10 new EU Member States. This is largely explained by Poland’s very large and predominantly rural population.

The growth rate of the Internet access in the EU Member States in the last four years has remained at a high level (since 2000 the number of Internet users rose in the EU Member States by 121 percent). The leaders in terms of growth rate are particularly countries from Central and Eastern Europe (CEE) including Latvia at 524 percent, Hungary at 235 percent and Poland at 220 percent.

According to the basic ranking, referring to the percentage of population with Internet access, unfortunately Poland is lagging behind (the average for the EU in 2004 was 44.8 percent, whereas in Poland Internet access is only enjoyed by around half of that figure – 23.5 percent.

According to ITU forecasts, given current circumstances, Poland will reach the level of 47% (percentage of people with Internet access) only in 2009. This is shown in Figure 3.3.

Until recently the predominant way of the using the Internet in Poland was by dial-up access, which was due to the relatively low entry costs of this service and low availability of alternative faster forms of access. In 2004 the fixed link was the fastest growing way of using the Web. At the end of the second quarter of 2004, 25.3 percent of Internet users enjoyed the Internet at home using a fixed link. This result was achieved not only thanks to the creation of opportunities for using fixed link, but primarily thank to growing interest of consumers in using the Web.

According to a TNS OBOP public opinion poll in 2004 the number of people planning to obtain Internet access rose significantly. The highest growth of interest is visible in the rural population (from 1.9 percent to 5 percent) and places with less than 20 thousand population (from 3.7 to 9.4 percent). The growth of the Internet market is influenced heavily by the permanent number of PCs. In 2004 Poles purchased 1.3 M new PCs (this figure represent a 15% growth rate against 2003). According to the Polish Central Statistical Office (GUS) survey (carried out in July 2004) the personal computer was present in 36 percent of households in Poland (42 percent in urban areas; 25 percent in rural areas), where the technical opportunity for Internet access at home existed, 26 percent of households had made use of it. Detailed data by domicile, net monthly income and type of household is presented in Figure 3.4.
The most numerous category of Polish Internet users are pupils and students (37.2 percent) and children from 15-24 years of age (41 percent). Figures 3.5 and 3.6 below illustrate the age and occupational status of Polish Internet users.
Figure 3.5 Age of Polish Internet Users by Age Categories

Source: Polish Central Statistical Office (GUS): Use of ICT at enterprises and households in 2004

Figure 3.6 Occupational Status of Polish Internet Users

Source: Megapanel PBI/Gemius, November 2004
The largest category in the population of Polish Internet users represents people falling into the 15-24 age category, whereas the least favourable situation is in the 55+ age category. Merely every 30th person in the Web is above 55 years old. The world leader in terms of the elderly share in the Internet users is the United States of America. In the European Union the United Kingdom (38.7% of the elderly) and Germany (31.6%) are worth mentioning. The situation worse than in Poland is only in Hungary (4.3%).

The above data shows that the digital divide in Poland, as in other countries, is moulded by a myriad of various factors: age, educational background, domicile, financial status. The Web use is fostered by domicile. The larger the city, the more opportunities there are to use Internet. The rural population where the Internet access costs are much higher, and potential benefits of the Web investment are lower, are practically excluded from participation in the information society. Consequently one can observe large regional diversification both between and within individual provinces and cities (see Figures 3.7 and 3.8).

Figure 3.7 Internet User Structure By Domicile (Provinces)

![Pie chart showing Internet user structure by domicile (Provinces)](source: Polish Central Statistical Office (GUS): Use of ICT at enterprises and households in 2004)

Polish Internet users most frequently use the Web at home - from 57.2 percent to 70 percent, depending on the month and type of survey. After the home, the most frequent places of using the Internet include school or university (26 percent), place of work (22.2 percent), acquaintances (19.6 percent), Cybercafe (15 percent), other (1.5 percent). The development of home-based Internet can be explained by wider and wider opportunities of installing fixed links at domicile. At the beginning of the next year the subscribers of the Polish Telecom (TP S.A.) stand a chance of being offered cheaper Internet services, since the Telecom and Post Office Regulatory Office is drafting a document that will enable the alternative operators to provide Internet services to Polish Telecom subscribers. In many European countries (France, the United Kingdom, Sweden, Finland) the local loop unbundling had a very positive impact on the increase in the number of Internet subscribers and price decline. Let us hope that in Poland similar trends will be observed.

Unfortunately according to many rankings analysing individual indices Poland occupies more and more remote positions. In the last ranking of ICT application, covering 104 countries, prepared by the World Economic Forum, Poland occupied 72nd position. Poland was ranked at the level of minus 0.50 points. Poland was taken over by such countries as Estonia, Russia, Romania, Slovakia, the Czech Republic, Hungary and Slovenia. In 2004 ranking of openness of market to Internet and data communications innovations Poland occupied 36th position out of 64 countries. Within one year Poland moved down by 6 positions on the list.
Based on the mandate of the European Commission Cap Gemini Ernst & Young carried out a cyclical survey of the level of providing electronic services. The survey findings show that the best developed in Europe are services generating revenues for the State (taxes, social insurance, customs duties) - the grade awarded was 82 percent, whereas the least developed are services related to issuing all kinds of permits - the grade awarded was slightly above 40 percent.

Source: Polish Central Statistical Office (GUS): Use of ICT at enterprises and households in 2004

Under EU policy and plans e-Government is a part of a wider concept - the development of an information society and knowledge-based economy. Pursuant to the ‘e-Europe’ strategies the e-Government developmental activities are monitored, with the list of basic public services provided electronically set earlier that is now monitored in various
countries. The list comprises 12 basic services for the general public and 8 services for corporate bodies. In the period under study of Cap Gemini in Poland there were no major initiatives and the grade of 21 percent implies that on average the public e-services in Poland do not exceed the information level. If this trend persists in Poland, it would imply that e-administration development in Poland has some way to go if it is to catch up with EU standards.

Figure 3.10 The development of e-Administration in EU and Poland

Source: Cap Gemini Ernst & Young, 2004

<table>
<thead>
<tr>
<th>EU</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling of budgetary revenues</td>
<td>82%</td>
</tr>
<tr>
<td>Social services</td>
<td>53%</td>
</tr>
<tr>
<td>Registration</td>
<td>58%</td>
</tr>
<tr>
<td>Permits and licensing</td>
<td>44%</td>
</tr>
</tbody>
</table>

It is believed that major hindrances to the development of eGovernment include insufficient education and lack of confidence in safety of transactions made via the Internet.
4. THE DIGITAL DIVIDE IN POLAND

As already mentioned, Poland belongs to the largest European countries. Historically speaking the development of Poland was not uniform and consequently it led to strong territorial, social and cultural diversification (Piatkowski 2005). A material reason for the diversification was a long-term influence over individual regions of difference cultural and civilisation patterns. The nature of the economy and the level of income vary from one region to another.

Historical divisions do still have an impact today, at the level of Information Society building as in other areas. Even today it is justified to talk about Poland A - the Western part and Poland B - the Eastern part. On the top of this division there is another one between urban and rural Poland. Large metropolises are developing dynamically also in the area of ICT and Information Society.

There are yet other lines along which Polish society is divided in terms of digital inclusion/exclusion. In this section Digital Divide in households and enterprises is discussed. Data for this analysis comes from a recent Central Statistical Office survey (GUS 2005)

4.2 The Digital divide in enterprises

In Poland 92% enterprises used personal computers and 85% had Internet access. The Internet access of enterprises in other EU Member States was, on average, only slightly higher - 89%.

A negative phenomenon in Poland is the fact that small businesses have lower than average Internet access - 81%. Though this percentage index for small businesses is not significantly lower than the average, however, attention should be paid to it due to the special significance of ICT for this category of business entities. It is believed that in the small business category ICT may have special impact on various savings and possibility of using e.g. e-administration.

Broadband access is important, which enables more effective use of the Internet than analogue access. Here the comparison between large and small businesses shows a material qualitative difference to the detriment of small businesses. While in the large business category 79% had broadband Internet access, in the small business category this was the case for only 21%. This qualitative difference differentiates essentially access to information and the involvement of small businesses in the Information Society.

The Digital Divide is also apparent between different types of business activity. The largest percentage of people working with personal computers and using them at work was recorded certainly in the IT sector where levels 94% and 88% respectively. The lowest utilisation rates were recorded in the industrial processing sector at 22% and 14% respectively and in the construction sector at 21% and 15% respectively.

Only 36% of businesses declared that they used the Internet for training and educational purposes. Large corporations were in the lead here, at 56%, whereas in the medium-sized business segment the level was 46% and in the small business segment only 32%. Personal computers were used for training purposes most frequently in the IT sector.

4.3 the Digital Divide in households

In none of the quantitative benchmark analyses illustrating the level of computer and telephone market saturation is Poland higher than the average when compared with other

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4 The number of mobile telephone users per 100 persons, number of PCs per 100 persons, percentage of people having a PC and Internet access, Internet access at home, Internet access cost as percentage of monthly earnings, number of public outlets with Internet access, number of PCs per 100 pupils at primary and secondary schools.
New Member States. The findings of GUS research (GUS 2005) give the most recent indicators for ICT use in Polish households.

Around 36% of households had a PC; 42% in the cities and 25% in the country. Twenty six percent of all households had access to the Internet; 31% in the cities and 15% in the country. The quality of the Internet connection varies: only 32% had broadband access. In the cities 37% of Internet users had broadband access compared with only 9% in the country. Especially alarming are comparisons of indices illustrating financial, technical and educational barriers. According to the survey carried out in March 2005, 72% of adult Poles had never used Internet and most of them did not intend to use it. Thus a social sphere has emerged to which a large part of adult population has no access.

The Digital Divide in Poland, similarly to other countries are influenced by a range of factors including age, educational background, domicile, financial position and number of children.

The Internet is used much more frequently by the young than by other age categories. Almost two thirds of the surveyed population aged from 18 to 24, reported using the Internet. In the next age bracket (25-34 years of age) Internet users account for less than fifty percent, whereas in the older category the percentage of Internet users is even smaller. In the eldest age category of the surveyed population almost nobody uses the Internet.

Internet use is fostered by a good financial position. In the population where more people define their financial position as good, the number of Internet users is proportionally twice as high as among those defining their financial position as average and almost five times more than in the category of people defining their financial position as bad. According to the cited research 73% of affluent households had a computer, compared with 43% of average income households and 16% of poor households. Sixty eight percent of wealthy households had access to the Internet whereas among average and low income families this fell to 30% and 12% respectively.

The educational background has a very strong impact on the use of opportunities offered by the Web. More than three quarters those with a university education use the Internet, compared with less than a half of those with secondary education and very few respondents with a vocational and primary educational background. Internet use is also fostered by domicile. The larger the city, the higher the opportunities are for Internet use. The rural population where the Internet access cost is much higher and the potential benefits of the investment are lower are practically excluded from the Information Society. Various reports show that in a few year times this will imply a failure to use the population capacity of Poland.²

Respondents in the Central Statistical Office research (GUS 2005) were asked about barriers to their Internet access. Those without such access indicated that it was related to financial barriers (77%), lack of knowledge (56%) and lack of need to use the Internet (44%). It should be mentioned that 19% were using the Internet outside their households.

These answers clearly suggest what should be done to facilitate the access to Internet. As said in this report the ICT market should be liberalised in order to lower the costs of Internet. People should get more education on the importance of Internet and should receive appropriate skills.

The next section shows that such necessary activities are foreseen by the decision makers and are present in the debate on building the Information Society in Poland.

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³ Wenzel M., Internet and computers: household equipment, use, development prospects, survey communiqué. April, CBOŚ, Warsaw 2005
⁴ Ministry of Science and Information Technology Implementation, Proposed Development Directions for Information Society in Poland until 2020, Warsaw, September 2004
5. ICT DEVELOPMENT ACTIVITIES IN POLAND

5.1 Institutions

Many institutions influence or may influence ICT development and the use of these technologies for the development of an Information Society. From the perspective of Poland as a whole, some initiatives taken at government level have key significance. However, grass root initiatives are also important, viz. the activities of non-government organisational (NGOs) oriented at building the Information Society at a local level. The activity of local players may be instrumental to the reduction of Digital Divide, since one may presume that the local centres have better knowledge about Digital Divide and may have better ideas how to prevent it. An example of such non-government organisation is the association ‘Cities on the Web’, a co-organiser of the 2005 EISCO conference in Cracow.

Many institutions at central government level have been involved in developing policy directions on the Information Society. Taking the leading role for the Information Society development has been the Ministry of Science and Information Technology Implementation – established in 2001. An important role has been also played by the Ministry of the Interior and Administration, the Ministry of Education and, from the perspective of ICT application to the social security area, the Ministry of Social Policy, the Ministry of Economy and Labour and the Ministry of Health.

The establishment of a new Ministry responsible for the Information Society was the manifestation of a special significance attached by the Polish authorities to the Information Society questions. Since then the responsible minister has been in charge of Information Technology implementation on a nation-wide scale. The centralised powers and responsibilities are by all means advantageous for operational efficiency.

Appreciating the significance of this decision many experts, however, pointed to some problems:

The putting of Information Technology implementation under the powers of the Ministry of Science has given rise to some reservations, and some commentators have expressed the view that the rank assigned to the role is insufficiently high. It has been necessary to point out that the use of information technology is not only intended for the purposes of science development or the application of scientific projects but rather for the building of as universal as possible Information Society, reaching the overall Polish society, at all levels.

The use of the notion of ‘Information Technology implementation’ is seen by some as somewhat inaccurate, since it creates a mental association which is limited only to the application of technology, computers and the Internet. In reality, the concept of an Information Society should be much broader: the gist is the access to information (using the technology as a means) and its use under a wide range of circumstances. Certainly the name itself is not decisive, but seems to indicate an incomplete understanding of the breadth of the Information Society question.

In practice Information Technology implementation issues are in the hands of the aforementioned ministries. A need to set up a co-ordination centre for ministerial activities is indicated. The rank of Ministry of Science and

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7 Previously the Ministry of Science
Information Technology Implementation may be too low when compared with other ministries e.g. the Ministry of the Interior and Administration.

Appropriate institutional arrangements at the central level are essential, since in the ICT area in particular it is crucial to develop a coherent concept for building the Information Society. If they are fragmented and not co-ordinated, the use of ICT in individual spheres of socio-economic life may even hinder access to information. This is of particular importance in the public sphere, eGovernment and social security.

This is why it is so crucial to determine which institution should be responsible for the Information Society and to delegate to it real powers to mould policy in this area.

5.2 Documents

The first government document that called for development of an Information Society was a document produced by the Scientific Research Committee entitled *Global Information Society in the Context of Poland’s Accession to the European Union*. The document was still quite general, set necessary development direction, and indicated a need to invest into data communications. The document in question provided a stimulus for further actions.

However, it should be emphasised that from today’s perspective it was prepared recently, which means relatively late. The delay undoubtedly influenced the current shape of both infrastructure and Information Society regulations. Poland had a late start.

In the same year (2000) in Warsaw a document entitled *eEurope+* was drafted with the aim to support the implementation of the Information Society in Europe. The *eEurope+* paper was a response from the candidate countries to the *eEurope* scheme of the EU15 entitled *An Information Society for all*.

The *eEurope+* paper accounts for the specific nature of individual countries and for the problems in individual sectors.

The *eEurope+* paper comprises the following objectives:

- Levelling off information gaps between the economies of candidate countries and those of EU Member States
- Joint activities aimed at creation of Information Society in the Overall Europe
- Exchange of national experiences
- Cheaper and faster Internet for all
- Investments into human resources and qualifications
- Stimulating Internet use

The candidate countries accepted for the purposes of monitoring Information Society development the same set of indicators as the EU-15. However, attention should be paid to one major difference between EU-15 and the accession countries. Whereas in the former the telecommunications law was liberalised already in 1998, in the New Member States the liberalisation process is still under way. The liberalisation process has a decisive influence on telecommunication rates and on Internet access. The Internet access represents one of major objectives of *eEurope* and *eEurope+*.

For Poland, an important document laying down general and specific directions of activities in the area of Information Society development is *ePolska - Action Plan Fostering Information Society in Poland in the Years 2001-2006* (Ministerstwo nauk...i 2004a). It was inspired by the European initiative entitled *eEurope 2002 - An Information Society for All*,

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4 Currently known under the name of: ‘Objectives and Directions for Development of Information Society in Poland’.
with the priority being activities in favour of the transformation of European society into a Global Information Society.

Recently the Council of Ministers (13.01.04) adopted the ePolska Strategy for Information Technology Implementation in the Republic of Poland in the Years 2004-2006 (Ministrstwo nauki 2004a). Its primary goal is equivalent to eEurope - providing to each citizen, school, company and office access to new data communications technologies and enabling their use. The strategy execution aims at the implementation of priorities that will make it possible to bridge the development and ICT application gap. As shown above the Poland’s position in terms of Information Society development is moderate and there is much hope that realising the strategy will address the crucial issues.

Three areas in the strategy were set:

A - universal access to the Internet
B - content and services available via the Internet
C - universal ability to use Information Technologies

Top priority activities in the short-term under the third category (letter C) include:

C1 - universal ability to use a computer - arriving at the stage where each secondary school graduate will be able to use a computer and to enjoy the benefits of using Internet,

C2 - prevention of Digital Divide - securing technical capabilities for equalisation of chances for full participation in the Information Society for middle-aged people requiring additional education and for the disabled with the use of e-learning techniques, and promotion of telework as a method for making people professionally active

C3 - enhancement of vocational IT preparedness - support to computer training programmes for adults with the focus on training of the unemployed

Bearing in mind the findings of cited earlier research findings the focus areas of the strategy seem appropriate. Technical access to ICT is very important, as well as attitude and skills in society facilitating Internet use.

The co-ordinating body is the Ministry of Science and Information Technology Implementation.

The i2010 initiative (European Information Societies in 2010) is a follow-up of earlier action plans entitled eEurope 2002 and eEurope 2005 and is a part of a new phase of Lisbon Strategy. The letter ‘i’ stands for the following issues: information space, innovations and investments and inclusion.

The document lists the following priorities:

To create open and competitive market for the development of Information Society and media services

To increase the investment level into research on Information Society technologies by 80%

To promote integration of Information Society in Europe

The involvement of Poland in the execution of an updated version of a European scheme with the aim to develop the Information Society boiled down, among others, to co-organising in Cracow of the European Conference of Information Society (EISCO 2005) under the title ‘New Horizons, New Challenges for Local and Regional Governments’. The co-
organiser was the Małopolskie Province that is in the lead in Poland in terms of Information Society development.

In the Cracow Declaration adopted at the end of conference the following underlying assumptions for i2010 strategy were developed:

- On-line access to services
- Readiness of local governments to team up to build Information Society
- Data security and protection
- Getting connected to the digital communication system of the members of local community
- Development of specific scenarios by local governments with regard to the activities planned in the e-government area until 2006
- Support to digital eco-systems with the aim to develop innovativeness and participation of local entrepreneurs in global market
- Support to public-private partnership (PPP) and competitiveness based on the co-operation of scientific circles of the business community
- Free access to software
- Availability of IT training courses

The postulates mentioned in various configurations in the quoted documents are focused on important issues still they are to a considerable extent declarative. Nevertheless they undoubtedly show that the authorities of Members States, including primarily Polish authorities that are in focus here, perceive a need to build and develop the Information Society and understand overall activities that have to be taken to this extent.

These activities cover most of socio-economic spheres of endeavours, which stems from the essence of the concept of an Information Society. Therefore these activities can be treated as necessary foundation and creation of climate rather than specific guidelines.

Despite the general and fragmentary nature of the Cracow Declaration it can be noticed that the focus is on local activities. The gist is that it is not enough to take actions only at the central level and for the central level. There is clearly more and more emphasis put on inclusion and integration including integration to overcome geographical divisions.

The geographical divisions, especially with division into urban and rural area, have been a very important dividing line of Digital Divide.

### 5.3 The Debate on the Mitigation of the Digital Divide

The moderate position of Poland in building the Information Society makes it clear that there is an urgent need to take action to tackle the Digital Divide both at macro and micro levels. As shown before, the State has undertaken various actions to develop Information Society. In addition, various interest groups, researchers and experts have participated in a debate on the Information Society. Their suggestions and proposals, basically in line with government policy, still add to and elaborate some issues (Glomb 2005).

Some important issues that were indicated in this debate include:

- Funding level
Use of EU funds (structural funds)

Raising consciousness about the significance of the Information Society

Appropriate legislation

Analysis of the development of the Information Society from both supply and demand sides

In relation to the first point (funding), in Poland the funding level both on research and development (R&D) efforts and on the ICT sector is too low as compared with other countries.

As regard the second point (the use of structural funds), State aid in this area is crucial. An example of insufficient utilisation of structural funds for building of Information Society infrastructure at the regional level is provided by a survey called: ‘Implementation status ...’ (The Ministry of Science and Information Technology Implementation 2005). According to survey findings from 2004, only 32% of structural funds were allocated, so 68% had still to be allocated. Only every fifth application was accepted.

In the light of these survey findings the authors indicate a need for government assistance in the implementation of structural policy in the following areas: changes in legal acts that make it hard to apply and interpret them because of their incoherence; allowing for involvement and part financing by ICT business following public-private partnership; setting up a liaison office for potential beneficiaries (end-users) interested in generating projects; and setting up a national framework for interoperability

In relation to the third point, the general raising of awareness, it is essential that clearly identifiably decision-makers with a broad understanding of the issues at all government levels have a clear understanding of the need of building Information Society and related requirements. At present this is not the case and therefore it is vital to seek the involvement of politicians and state administration officials in the discussions and activities taken in favour of Information Society. A recently carried out survey among various political parties disclosed the lack of knowledge or interest of the surveyed in this problem.

As regards legislation, the fourth issue, it should be noted that appropriate legislation also requires the support of state authorities. Recently the Information Technology Implementation Act has been enacted, which is a step in the right direction. The actual implementation of this Act will also require additional secondary legislation.

Finally, as regards the fifth point, it is crucial to draw attention to two sides of building the Information Society: the supply and demand sides (Glomb 2005). The gist of this argument is the technologies alone in no way guarantee the benefits from Information Society development. Even if universal backbone and broadband access networks have been built they will not provide benefits if they are not used to provide appropriate content. The content should meet the following conditions:

- Relevance to the matters material from state policy perspective
- Relevance to the matters material from recipient perspective
- The message should be in the form that ensures its accessibility by the target groups

In the debate on building the Information Society essential questions have been raised. One can get the impression, however, that these debates are too restricted to certain groups and do not yet involve majority of the society, which would be desirable given the objective of building the Information Society and abolishing the Digital Divide.
6. THE DIGITAL DIVIDE AND WELFARE

In the socio-economic model of the European Union the public administration plays a special role. Its task is to support the functioning of the competitive EU market in parallel with securing the necessary level of economic cohesion of the EU member state societies. For this purpose it gets involved in, among other things, education, health care, social security, environmental protection (Proposed Directions... 2004). ICT use can also facilitate good administration in the field of welfare.

The availability of administration services via ICT in Poland has to be developed in the light of comparative research. An important element of the evaluation of the EU Member States progress in the development of ICT is the survey of availability of electronic services provided by the administration. The ‘Web-based Survey on Electronic Public Services’ survey carried out by Cap Gemini pursuant to the mandate of the European Commission, Information Society General Directorate are tools of the eEurope plan. In the light of this survey (analysis of Web sites) Poland does not look favourable (Ministerstwo nauki... 2004)

The necessity of building e-administration is well understood in Poland. In the already cited ‘Strategy of Information Technology implementation in the Republic of Poland- ePolska for the years 2004-2006’ it is assumed that by 2006 all central databases will be operated based on uniform data model and communication standards. It assumes that the priority public services will be transferred to an electronic platform. Development of services connected with social security is clearly foreseen.

The strategy envisages that in 2006 the following services will be available:

Tax settlement

Browsing through job offers

Granting of rights to benefits by the Social Security Institution (ZUS)

Obtaining ID card and driving licence etc.

Making an appointment with a doctor

It is believed that these services are technologically feasible and difficulties in the process of implementing them have a rather institutional or organisational nature.

It should be noted that eGovernment in this field is not synonymous with the implementation of information technology in the administration sector. It involves the implementation of overall ICT-based activities with the aim of creating better and more effective administration. The following features are intended:

openness and transparency, which renders the state management understandable and foreseeable, open to co-operation with citizens

citizen friendly. Citizen-oriented services.

productivity and effectiveness, the optimal quality of services for the citizens (Ministerstwi nauki 2004)

In preceding sections the currently existing divisions with regard to information access, and, to speak more broadly, divisions in the sphere of Information Society development were shown; at present one can talk about a significant Digital Divide in relation to: rural areas, smaller businesses, the elderly, people with lower education and people with lower income.

Paradoxically enough the social categories suffering from Digital Divide or threatened with Digital Divide are at the same time these social categories for whom ICT could theoretically provide most salvation and play the most helpful role. It is ICT that could support education
of the rural population that has limited access to urban centres. It is the ICT that plays a pivotal role in cost reduction and attainment of higher flexibility of small businesses. The everyday life of the elderly could become easier, people with lower education could upgrade their education and people with a low income could perhaps earn extra income by means of telework.

In many countries and also in Poland social security is closely interrelated with labour market performance. This is due to the Polish welfare model which is of the insurance type. In this model the social security systems are still to a large extent dependent on participation in the labour market. So the benefits entitlements and the level of benefits (e.g. the level of long-term benefits) depend on employment, its type, length of employment term, remuneration.

Efficient use of ICT at the labour market will no doubt influence welfare (social security) systems in a positive way at the level of the system as well as the level of individual. A good situation on the labour market and low unemployment, would contribute to lower welfare expenditures. On the other hand the employed are eligible to many benefits on the basis of legal employment. Those who are unemployed or illegally employed will not be accruing rights for elderly or disability pensions.

The reason for applying for social security benefits can be joblessness (or the lack of formal job) or the threat of unemployment. The unemployment benefits alone are not high and they do not provide appropriate security, however, other segments of social security system are also used to raise income levels. This primarily includes disability benefits, earlier retirement benefits and to a certain extent social welfare. It is a well known phenomenon that people successfully apply for disability benefits in order to avoid unemployed status and this leads to high expenditures spent on unduly granted disability pensions.

Consequently, the availability of work can not only directly improve the living standard of the society but can also reduce the burden for the state budget in relation to costly social security systems - mainly disability and unemployment insurance. Therefore it is crucial for the good functioning of the social security system that work is available, that people have right to benefits when really necessary and also that they don’t have to apply for them too early and too often as happens when unemployment is high.

6.1 ICT and the labour market

Since the beginning of economic transformation the ‘open’ unemployment has emerged in Poland due to structural changes in the economy. Currently the labour market is still characterised by high levels of unemployment (around 18%). This high unemployment rate is seen as the main factor responsible for poverty. Therefore it is very important to create conditions preventing the occurrence of unemployment.

ICT may play, as envisaged in the strategy, an important role in this area, particularly as a source of quick and comprehensive information about possible employment. Finding a good job, in particular an appropriate job, matching one’s qualifications is a key factor for the level of financial security.

There are numerous actions undertaken in this area, which are initiated by national institutions and EU legislation. Employment strategy is to the centre of the socio-economic policy of the government.

Most important actions in the area of using ICT for labour market information are presented below.

It is well understood that the territorial dimension of unemployment is important as the unemployment rate varies greatly due to region and or the urban/rural divide. Bearing that in mind, the Ministry of Economy and Labour develops information services about the job market in the form of Local Information Centres using computer technologies. The so called
Local Information Centres were established as part of this initiative. The Local Information Centres aim at mobilising local community and stimulating local job markets through providing easy access to new information technologies. All Local Information Centres have a ‘jobs stand’ i.e. a computerised database providing information about the job market (not only the local job market but even international job markets).

Around 900 Local Information Centres were established (Instytucjonalna obsluga 2005). The range of information provided is wide; it covers job offers and also other subjects connected with employment. There is information provided about jobs, voluntary work, professions, schools, educational institutions and starting one’s own business as well as basic information regarding labour law, obligations of unemployed persons, European information (in particular regarding access to foreign job markets) and addresses of labour offices and other institutions servicing unemployed persons and other job seekers. So they aim at helping not only the immediate finding of a job but also preparation for labour market participation in the future through appropriate education, as well as directing users to other institution connected with the labour market. All information provided by the Local Information Centres in order to help different categories of job seekers is available in different formats: printed materials as well as digital data.

There is also an on-going project introducing a national monitoring system for the labour market system of job offers exchange (based on the already operating system plus data collected by employment services with the possibility for adding job offers by employers and job seekers).

Another action undertaken by The Ministry of Economy and Labour was opening an Internet site providing information about programs for counteracting unemployment, conditions for participation and updated information about situation at the labour market. This site www.1praca.gov.pl has been visited by 5 million visitors since the day of its opening in June 2002. The Ministry of Labour has responded to 10,249 questions asked via the Internet. In February 2005 a new updated Manual for graduates ‘Layette for High School Graduates 2005’ was placed on this site.

The Department of Computer Technologies in co-operation with the Department of Labour Market created Internet site presenting EURES, www.eures.praca.gov.pl. There is also an on-going project aimed at placing Polish job offers into the EURES system.

Another ministry, the Ministry of National Education and Sport, has special Internet sites for young persons. In the year 2004 a pilot project of Information Centres for Young Persons was started. The main objective of this project is to provide comprehensive information about education, culture, recreation and employment.

Summing up the actions at the Ministry level in the field of using ICT for labour market: there are several initiatives there going in the right direction. However they are still not sufficient in terms of quantity or quality. There should be more Local Information Centres and there should be more connection to international labour offers.

It should be mentioned that these initiatives concern basically the supply side of the labour market information whereas perhaps more activity should be focused on the demand side. It is crucial to make the people at the labour market want to find the information via the Internet. To achieve this goal it is necessary to educate people about the benefits of using ICT for job search.

Apart from these ministerial initiatives, there are also numerous Internet sites working for the job markets and providing updated information situation at the job market, allowing employers and job seekers to place and match their offers. These sites provide guidelines on how to create one’s own Internet site, advice about preparation of a CV, information about how to fill in forms and how to make the best impression during a job interview. In case of many unemployed persons their low mobility is caused by lack of self-presentation skills rather than lack of qualifications.

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9 The idea leading to establishment of the Local Information Centres occurred within the framework of the Program for Job Activation of Graduates ‘The First Job’
At the level of labour offices it is important that professionals help job seekers to find adequate employment also with the use of ICT.

Considering both institutional services for the labour market and the equipment of centres for counteracting unemployment one can identify particular problem areas. The number of professionals working in job services is much too low comparing to needs. The structure of employment in these institutions is not adequate to the demand. The number of labour market counsellors is much too low. In 2001 there were 1,353 employment officers (8.8% of the total number of employees of labour offices) and only 453 job advisors (3% of all employees). One employee of a Poviat labour office served from 189 to 226 unemployed persons (Bednarski 2003). This statistic is very important from a point of view of easy access to information and implementation of tasks stimulating job seekers. We observe also negative tendencies in using services provided by job advisors. In 2004 only 8% of the total number of the unemployed used services provided by job advisors. In this group 70% of the use was made by young persons under the age 24. This means that there is no practice of using job advisory services for the process of career reorientation.

Financial resources used for equipment of labour office have an impact on the infrastructure and functioning of Poviat labour office ‘Standards of office space and equipment may not be considered sufficient, computers are too slow and their number is too low’ (Bednarski 2002) In addition there are significant disparities with regard to computer equipment. The lowest number of computers was reported in Małopolska region (40). The situation looked better in the following Poviats: Lódzki (134), Kielecki (114), Bydgoski (108). One Poviat had only 8 computers (Instytucjonalna obsługa..2005). The situation becomes worse if poor computer infrastructure in public institutions is accompanied with equally poor computer equipment in educational centres in a given area. These significant disparities in computer equipment are accompanied by great differences in numbers of persons participating in training, for example in Warmia-Mazuria Region 84 trainees used 41 computers while in Kujawsko-Pomorskie Region 933 trainees used 344 computers.

These data undoubtedly confirm the existence of a Digital Divide in labour services. With better equipment the employment offices have the chance to be much more efficient. Still the computers themselves will not solve the problem alone. There is a need for job advisors who can help to find and use the information - provided with ICT - on possible employment or training for a particular individual. Therefore in order to limit the Digital Divide in labour market information it is necessary to supply local institutions, mainly labour offices, more evenly with computers and Internet access and to employ more professionals able to help the job seekers - also using ICT for this purpose.

### 6.2 ICT in the social insurance system

ICT use can influence welfare systems not just indirectly via their impact on labour markets but also directly by providing new ways to access job information. In addition, there is a necessity for ICT within the social security systems themselves. ICT is necessary for the functioning of some social security segments. Also, as stated before, ICT is predicted to play an important role in public administration, social security administration included.

The operational scope of eGovernment covers the social security schemes such as social assistance, assistance to the unemployed, social insurance, health care. A need is perceived to take advantage of ICT to communicate with the general public in the above mentioned areas, however, the utilisation of ICT varies from one area to another.

In 1999 a radical reform was introduced in the social insurance system for employees. It covers all employed and self employed persons apart from private farmers who still have a separate social security system.
The social insurance system for the employees includes old age pensions, disability pensions, cash sickness benefits and benefits in case of occupational accident or disease. The reform introduced some organisational changes in the administration of the system and very important changes in the old age pension system. The old age pension formula was radically changed and new way of financing was introduced (funded as well as pay as you go). Introducing this reform was technically possible only because of ICT use.

The rationale for the pension reform was complex. There was an expectation of building the capital market, growth of savings, and fairness in income distribution.

It should be also emphasised that one of the major underlying assumptions of the pension reform in addition to other important goals was to implement two tasks in the labour market:

- Creating incentives for employees to participate for as long as possible in the labour market
- Holding down the increase of social security contributions in order to reduce non-wage labour costs and to create incentives for employers to participate in the labour market

Without entering into debate here whether the above assumptions were right i.e. whether the new system will have a material positive impact on the labour market, undoubtedly it could not function without ICT. Thus, theoretically speaking, the ICT-enabled reforms were introduced in order to facilitate employment growth.

As already noted, a further impact of these measures, assuming that the goal of employment growth is achieved, will be that the employed will not use social benefits or will use them to a limited extent. This will help to limit the social expenditures which are currently seen as overly high.

In order to introduce the social insurance reform the institution that administers the social insurance system for the employees (old-age and disability insurance, sickness insurance, accident insurance) has had to develop ICT use extensively.

The Social Insurance Institution (ZUS) is the largest social insurance institution in Poland both in terms of the number of insured and of beneficiaries as well as the myriad of social risks under administration. Therefore its significance for the social security is unquestionable. At the same time the Social Insurance Institution uses ICT to a largest extent among all welfare institution in Poland.

ZUS realises many tasks: it plays an active in raising the revenues of the insurance system (contribution collection) as well as benefit calculation and payment. These tasks are connected with a lot of data processing. Even before the social insurance reform the quantity of data collected and processed was very large. ICT were already used in the Polish social insurance system before the radical reforms introduced in 1999. However the widespread application of ICT was accelerated by this reform due to the drastic increase in the flow of information that has to be processed so that the reformed system could operate (Dagiel 2004). In the first place, efficient communication with the social insurance contribution payers became necessary, as it was the condition of proper financing of the new system. For this purpose ICT was used.

This need to communicate with contribution payers has drawn attention to wider aspects of the institution’s communication with its customers. In parallel, ZUS is therefore pursuing an active policy in the area of communication with the general public in which the bureaucratic approach is being replaced by a customer-oriented approach. The change of approach makes it possible to use ICT to meet the needs of the customers and the application of ICT supports the new approach (Lisowska 2004).

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10 Health benefits in kind, unemployment benefits are in other segments of the welfare system
11 The term ‘customer’ rather than ‘person who has come to bother me with some business to settle’ or ‘petitioner’ is used here not by accident.
Already at the beginning of 2000 ZUS was assessed as the 'unquestionable leader among Polish government administration bodies in the area of settling matters via Internet'. (Wrota Polski 2001)

6.3 Reforms of the social security system and ICT

The reform of social insurance system comprises two components: general administrative reform and the reform of one segment of social insurance system, viz. old-age insurance system characterised by a major change in the way of financing and calculating benefits. Under the new old-age pension system financing fully based on redistribution has been replaced partially with capital financing. A new private institution – Pension Funds - was introduced to manage the investments but not to collect contributions; the collection of contributions is still done by ZUS. Furthermore the benefit-defined principle was replaced by a contribution-defined principle.

The rationale for the reform of the social insurance system was that separate social risks covered by the system should be financially separate. It meant that separate contributions should be attributed to particular risks and separate funds for each risk should be established.

Whereas before the reform the employer paid a single social insurance contribution, at present he pays a few contributions. Apart from making contributions separate in terms of different risks they were also individualised. This was done because the contribution record of the insured individual is important information in the new system. It is believed that this individualisation will create proper incentives to participate in the labour market. Individualisation implies that contributions are collected from each employee separately. The system of individual accounts of the insured was introduced to meet this challenge. The individual accounts are used to record incoming contributions. The change of contribution division and collection caused a dramatic increase in the quantity of information that has to be transferred and processed at the Social Insurance Institution.

Contribution individualisation plays a pivotal role mainly from the perspective of the aforementioned old-age insurance reform. Given the new formula for calculating benefit, it is vital to have detailed individual information about pension capital raised throughout the overall period of professional activity of each insured person. The level of pension benefits in line with the reformed principles is supposed to be a derivative of the level of contributions sitting at the ZUS account, initial capital accrued for the period prior to 1999 and indexation of contributions at the account. Additionally the contributions are transferred to the open pension funds whose members are the insured. This implies that the insurance record of each employee and each self-employed person is built up on a current basis year by year.  

The 1999 reform was a turning point in the development of information technology at the Social Insurance Institution. The new responsibilities that emerged could not be handled by ZUS without building an IT system capable of supporting record keeping and settlement of individual contributions. While emphasizing the wider use of ICT it should be also noted that the Social Insurance Institution has been using for many years IT systems supporting the execution of its responsibilities (Dagiel 2004).

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12 To arrange data collected by the ZUS accordingly central registers were established where information about entities is stored – Central Register of Contribution Payers (CRP), Central Register of the Insured (CRU) and Central Register of the Members of Open Pension Funds (CRC OFE). The contributions are recorded at individual accounts of the insured kept by the IT system. The separated portion of contribution paid under 2nd pillar of insurance system is supposed to be transferred on current basis to Open Pension Funds. In parallel to the reform of the social insurance system the universal health insurance was being introduced. The health care contributions recorded by the Social Insurance Institutions are transferred to the National Health Fund (earlier to the Health Boards), in analogous manner to the pension contributions transferred to Open Pension Funds.

LAW workpackage 3 – Tackling the Digital Divide in NEW MEMBER STATES: the example of Poland report D3.3 25
Prior to the reform the contribution payers calculated contributions as a percentage of payroll fund and transferred the aggregate amount once per month. A comparison of the quantity of documents collected by ZUS before and after the reform shows the scale of change. Prior to the reform the Social Insurance Institution received approximately 18 million documents having an impact on the settlements. The introduction of individual accounts, settlements with open pension funds and mandatory reporting every three months led to a situation where the Social Insurance Institution receives approximately 250 million settlement documents each year. It is well understood that these new operational realities necessitated the advanced automation of record keeping and document clearing processes.

The idea of the individualisation of social security (pension) rights made the accuracy of documenting the contribution payment even more important. To make the incentives work the system had to secure transparency so that individuals trusted the system’s fairness. General boundary condition for effective reform implementation was the accuracy of incoming documents fed into the Comprehensive Information System. To achieve this a software programme for the payers was elaborated, The document quality improved dramatically thanks to the application of two technical solutions – the popularisation of the Platnik (‘Payer’) software and making it mandatory for the contribution payer (basically employers) to make transfers electronically.

Still the reform process is very complex and ICT is needed in many elements of this process. But due to the degree of IT system complexity it was not possible to build and implement all its components simultaneously and therefore tasks had to be prioritised. At the first stage of reform it was essential to convince the general public about its benefits and in fact the new institution of the pension system (i.e. open pension funds) stirred a lot of doubts. Some social security experts questioned their reliability. To secure the reform process it became important to prove that the new institution was in fact reliable. As the benefits from the second pillar for which the pensions funds are responsible were not to be paid for some years it was essential to show that the contribution collection was efficient, Therefore the top priority assumed was the launch of the process of transferring contributions to the private pension funds. There have been some problems with this but it is under control now.

### 6.4 Communication with customers

In recent years the Social Insurance Institution has attached great weight to the quality of its communications with the general public. Several initiatives have been taken to provide wider access to information about system operations and the Institution and improve the settling of specific matters. A special Customer Service Department was created in the structure of Social Insurance Institution in 1998. ICT is used widely in this communication process.

Any citizen might have an interest in obtaining information or settling matters with the Social Insurance Institution. However the main customers of ZUS are: contribution payers (1.9 M persons); insured persons (approx. 16 M persons); and old-age and disability pensioners (7.2 M persons).

The intensiveness of communication varies between those groups. As already explained currently the contribution payers constitute the group most interested in communication with ZUS.

In the customer service area a range of activities using ICT was prepared. These include the implementation and improvement of IT tools supporting services provided to contribution payers and the insured, the launching of two infolines for the customers, the development

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13 A decision was taken to commission development and implementation of comprehensive IT system for the Social Insurance Institution. According to assumptions the system was supposed to support practically all processes executed by the Social Insurance Institution.

14 The benefits are paid under the systems introduced prior to the 1999 reform. To meet the needs of allowance payment there are separate systems - for sickness allowance, for family allowance and nursing allowance. Given the liquidation of the alimony fund in 2004 the system under which alimonies were paid ceased to exist.
and planning of a Web information centre for the customers and thematic information services for the Social Insurance Institution personnel.

The ‘Payer’ software was already mentioned above. This did in fact contribute to better communication with ZUS; the completion of forms in the computer software limited freedom in document completion. Therefore the number of mistakes in filling in the forms decreased. Indicators show that ‘Payer’ allowed for more efficiency in clearing documents. During 2002 the accuracy rose from approximately 77% to a level exceeding 91%. By the end of 2003 it had reached 98% and has remained at this level since that time - approximately 2% of documents still require adjustments. Current levels are satisfactory (originally the plans provided for the attainment of accuracy at the level of 90 - 95%).

The higher quality of clearing the documents has had positive aspects, both financial and social. It has had positive impact on the finances of the system as well as on the perception of the reform in society.

It resulted in the increase of contribution amounts transferred to the pension funds. In 2001 the total transferred amount was PLN 8.7 BN. By 2002 this had already reached PLN 9.5 BN, and in 2003 stood at PLN 10.2 BN. The increase was driven both by the higher accuracy of contribution records and the improved quality of the registers kept by the Social Insurance Institution.

In addition, the insured have more confidence in the new system when they see that their contributions are transferred correctly.

As already noted, the priority at the beginning of using ICT in the reform process was the efficient transfer of contributions to the pension funds. Other functions of ICT were also foreseen in the process of reform implementation. There are many tasks entailed in providing more information both for contribution payers and other customers.

One currently very important target of the ‘Payer’ software developmental efforts is starting bilateral exchange of information with the payers, which should transform the software into the interface supporting the collaboration of the payer with the Social Insurance Institution. A new ICT-based service is the System for Bilateral Information Exchange (SDWI); it will represent a platform for the implementation of new services for contribution payers regarding information exchange via the Internet. A new electronic channel will be established, aiming at the improvement and also gradual widening of information exchange between payers and the Social Insurance Institution.

At present the System for Bilateral Information Exchange (SDWI) offers the following functionalities:

- Generation of authorisations to send documents on behalf of the payer
- Improvement of efficiency of transferring insurance documents to the Social Insurance Institution via the Internet and acceleration of collection of confirmations, enhancement of safety of data transfer

There is yet another very important function for ICT within the new pension system, that is providing information for the insured. According to the assumptions of the new system as well as the law, the insured have a right to detailed information about their individual accounts as well as predicted benefit amount. This knowledge, it was argued, would help them make rational retirement decisions.

Unfortunately the quality of documents filed with the Social Insurance Institution in the first couple of years of the reform was not satisfactory. That situation did not make it possible to determine the account balance for the insured and consequently to send the relevant information. But the situation has improved in this respect. As a consequence, at the end of 2003 the notifications started to be mailed to the insured with information about contributions recorded at individual accounts. This way the insured have obtained some insight in their future benefits.

Providing information for the insured apart form being a positive development in its own right also showed some inaccuracies in information about pension contributions. Some
complaints are lodged as a result, concerning irregularities in information about contributions or the absence of such information. The complaints of the insured indicated a need to enhance the IT system by adding a software unit supporting account maintenance. The development and implementation of software handling accounts of the insured in the field units of the Social Insurance Institution is now one of the major projects regarding the Comprehensive IT system.

Generally speaking, the use of ICT is widening according to previous plans as well as a reaction of current developments and reactions from customers.

The new services provided via infolines are thought to be used by the insured and payers. The information scope available there is very wide and concerns practically all aspects of ZUS activities. Once Poland joined the European Union the scope of the information provided was widened to include information about EU social security legislation. The demand for this kind of information is high. Those interested are persons of working age and pensioners. The first group needs to know about their social rights while working in European Union countries other than Poland. The second group is interested mainly in whether the accession to European Union may have changed their benefits eligibility; in practice many pensions for those who were previously employed abroad might in fact be increased according to European Union regulations.

The infoline experience was very interesting as it showed again that the ICT technology is only one condition of good information while its content is in fact decisive for the efficiency of the information process. It turned out that the infoline personnel sometimes lack subject matter knowledge. So some activities to educate the personnel became necessary.

At the websites different information is available. It should be also noted that the websites are being changed in line with the needs of customers. Apart from general information more profiled information is provided, adapted to current needs of customers. There has been a qualitative change in the Web services. The information is now more structured to help customers rather than give them general knowledge.

A general Web service about social insurance for all customers of the Social Insurance Institution (ZUS) is available at www.zus.pl. On this Web site one can find information about the legislation in effect, a description of the Polish insurance system, a description of the principles of co-ordination of social security systems in the European Union, a description of benefit types, application and statement forms, handbooks for contribution payers, current announcements of the Social Insurance Institution, answers to frequently asked questions posed by the payers, basic statistics, addresses and phone numbers of field units of the Social Insurance Institution.

Another information website concerns ways of settling matters. In its current form, this is basically for contribution payers - e-inspektorat.zus.pl. Information is provided about how customer service is organised at the field units of the Social Insurance Institution. It also provides information about matters concerning acceptance and handling procedures, supports customers in setting their matters by providing to user group specific subject matter information about Polish social insurance system and principles of co-ordination of social security systems, provision of electronic services to the customers by means of area-specific applications of the Social Insurance Institution, monitoring of customers’ needs and expectations and surveying of customer satisfaction index. The layout of the service is very much oriented towards user preferences. The content is systematised based on the concept of a certain issue as a specific series of actions.

Another website contains information about contributions recorded at individual accounts for the insured born after 1948. This contains valid data about notification of the insured born after 1948 about old-age insurance contributions.

Using ICT in Social Insurance Institution is a process in constant development. It is hoped that this part of the administration will become more accessible in terms of providing information as well as dealing with particular issues.

In summary, we can conclude that ICT plays a pivotal role in the operations of the new social security system including in particular the old-age insurance system administered by
the Social Insurance Institution. The operations of the new system would not be possible without the application of information technologies.

The reform of the social insurance system necessitated the implementation of better communication with the customers of the Social Insurance Institution including primarily contribution payers. Both the scope and the methods of communication continue to expand. In the future the customer communication system is expected to be ever-more interactive.

There are also plans to enable customers to do their business with the Social Insurance Institution via the Internet, including not only contribution payers but also the insured.

As mentioned before, already today the Social Insurance Institution is presented as a positive example of applying ICT and implementation of eGovernment on a limited scale. A drawback is, however, that the Polish public institutions are not integrated in terms of using eGovernment. The absence of data communications links between public institutions, not only active in the social security area, is a bigger problem perceived by the government. Recently a parliamentary act was enacted about computerisation of public institutions that would make the IT systems installed at individual ministries and public offices compatible. There is no doubt that the efforts undertaken so far are going in the right direction, however, according to the experts it will take a long time to achieve the full interoperability of IT systems that is necessary for the further development of eGovernment in Poland.
7. CONCLUSIONS

Since the beginning of 2000, the Accession countries have taken measures to meet the requirements posed by the Lisbon Strategy in the area of building a knowledge-based economy. The growth engine of this process is supposed to be the building of an ICT-based Information Society.

The benchmark studies carried out in the group of accession countries (currently also partially - New Member States) showed that the level of development of Information Society varied from one country to another, which was evidenced by various technical access indicators and the way of using ICT technologies including the Internet (both on the supply and demand side).

Poland, although in the lead in terms of economic reforms, general liberalisation and economy privatisation, does not occupy a high position in terms of Information Society development when compared with the other New Member States, and even less so in comparison with the old Member States. This is in part a result of its demographic difference from other New Member States, with a much larger population, much of it dispersed in rural areas.

One could say that the Digital Divide between Poland and the rest of EU states is deeper than in the case of many other New Member States. Additionally in Poland there are international divisions in various sections making the development of Information Society more diversified.

This combination of factors makes Poland a particular interesting case to study since it not only typifies in an extreme form not only the major challenges that face New Member States in the transition to a knowledge-society and full integration into the EU but also illustrates the very rapid progress that has been made on several fronts, thus exhibiting the full spectrum of challenges and opportunities.

The existing Digital Divide between the European Union and Poland and inside Poland already today has negative impacts. In the first dimension Poland in accordance with its economic and social capacity is not able to a full extent to become an operational part of the overall economic system of the European Union.

In the second dimension the social categories in an inferior situation - often the social categories at risk (mainly the jobless or people threatened with unemployment) - may not enjoy the benefits that would be needed by them to curtail the risk of unemployment and poverty.

In Poland the central government and many other are aware of the need to undertake urgent actions in favour of supporting the development of an Information Society, to a large extent, in relation to the EU requirements under the Lisbon Strategy.

A decisive factor for Digital Divide reduction will be the raising of awareness and undertaking actions listed in the government documents quoted above. The Digital Divide reduction will allow for better utilisation of e-administration including social security. In the Polish context is of special importance to use ICT to improve the situation in the labour market.

The role of ICT within welfare systems in Poland is foreseen but not yet fully realised. There are some programs partly in use in the field of social assistance and various benefits for unemployment. At this stage these programs rather deliver information to the institutions allowing them to control expenditures and to identify the beneficiaries.

For obvious reason in a country with high unemployment the focus of many institutions is on helping people to find a suitable job. There is much effort in this direction. These efforts are not as effective as expected due to institutional problems at various level of government and technical barriers still existing in Poland in access to the Internet. Also the society, especially the groups in unemployment or in danger of unemployment, do not
necessarily have the knowledge of using the Internet as a means to improve their position on the labour market.

Nevertheless, there is much hope for the improvement of the labour market situation in the future.

The existing Digital Divide results in a divide to access and information on social security systems. Not all of social security systems are accessible by the Internet. The Social Insurance Institution provides wide information for their customers and the possibility to apply for benefits via the Internet is foreseen in the near future. It is also envisaged that e-health services will develop.

The Social Insurance Institution (ZUS) has introduced ICT extensively. It is argued that this has contributed to building the Information Society since all employers had, as a result of social insurance reform, to use ICT for contribution payment. In a way then the social insurance reform can be said to have contributed to lessening the existing Digital Divide at least at the level of business entities.

In many ways, therefore, Poland represents in microcosm a broad spectrum of both the challenges and the solutions facing New Member States in the transition to a knowledge-based society in line with the Lisbon goals of combining economic efficiency and competitiveness with employment creation and social inclusion.

On the one hand, with its large rural population and institutional legacies from the past, Poland typifies the major ‘catch-up’ challenge that all NEW MEMBER STATES face in their differing ways in bringing their levels of infrastructure, public access, education and employment practices and economic development up to a standard that matches that of the more advanced states.

On the other hand, the award-winning\textsuperscript{15} modernisation of the Polish pension system (in a major transition from a traditional socialist model to a completely individualised one) demonstrates that it is possible to develop large-scale state-of-the-art eGovernment solutions for welfare services that are considerably in advance of those of most other Member States.

It is possible to conclude, therefore, that the lack of a more recent legacy of incompatible systems and deeply embedded institutional structures and practices may constitute an advantage as well as a challenge, making it possible to learn from the mistakes of others and leapfrog directly to the sorts of advanced solutions that are appropriate for an inclusive knowledge-based society.

\textsuperscript{15} This scheme won an EU award for eGovernment Best Practice in Manchester in November, 2005
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