

anspruchsvoll, so ließe sich an der Metapher des Labyrinths oder gar einer Methodologie des Labyrinths verdeutlichen, dass die Positionierung eines soziologischen Beobachters (WissenschaftsforscherIn) immer wieder ins Labyrinth selbst führe. Entsprechend müsse eine Soziologie der gerechtfertigten Überzeugungen die kulturelle Relativität der Rechtfertigung ernst nehmen. Dies bedeutet für einen deliberativen Konstruktivismus, dass die Geltungsgrenzen selbst zum Verhandlungsgegenstand werden, eine Aufklärung über die Verbindung von Wissen und Werten angezeigt und entsprechend ein pragmatisches Instrumentarium zu entwickeln sei. Die Tagung beschließend verwies *Wolfgang Bonß* vor dem Hintergrund modernisierungstheoretischer Überlegungen („Kontextualismus, Verwissenschaftlichung und reflexive Modernisierung“) darauf, wie sich das in der so genannten ersten Moderne etablierte Standardbild wissenschaftlicher Leistungsfähigkeit durch Analysen zur Wissenschaftsproduktion, der Wissenschaftsverwendung sowie gesellschaftlichem Katastrophenlernen relativiere. Dabei kennzeichnete Bonß zunächst das Projekt der Moderne, das sich beruhend auf bestimmten Basisprinzipien (etwa: Individualität oder Rationalität) von vormodernen Gesellschaften absetzte und dadurch zu veränderten sozialen (etwa: Erwerbsgesellschaft, Nationalstaat) und kognitiven (etwa: Idee der Veränderbarkeit von Gesellschaft oder Prinzip der Begründungspflichtigkeit von Entscheidungen) Strukturierungen führte. Im Prozess reflexiver Modernisierung komme es zu einer Radikalisierung dieses Wandels, bei dem die Grundannahmen und Institutionalisierungsformen auf den Prüfstand geraten. Dies erläuterte Bonß am Strukturwandel der Wissenschaft und markierte den Übergang von der „Dialektik der Aufklärung“ zur „Dialektik der Verwissenschaftlichung“ an einer wachsenden externen wie internen Politisierung der Wissenschaft unter Bedingungen wiederkehrender Uneindeutigkeit und Nichtwissen. Nimmt man die Anregungen aus beiden Vorträgen zusammen, so lässt sich festhalten, dass die Frage der Geltung wissenschaftlichen Wissens sowohl methodologisch als auch modernisierungstheoretisch aufgegriffen und vertieft werden muss.

5 Und jetzt?

Eine abschließende Beantwortung der Frage nach dem „Danach“ kann vor dem Hintergrund der Tagung selbstverständlich nicht gegeben werden, war auch nicht die Absicht. Vielmehr ging es um die Sichtung eines Diskussionsstandes und die Erkundung programmatischen Neulands. Die Fülle der aufgeworfenen Fragen und die trotz der reichlich bemessenen Diskussionszeit immer knappe Zeitordnung zeigten, dass die Provokation der Ausgangsfrage ankam. Offensichtlich hatte diese einen zentralen Nerv im Diskurs der Wissenschafts- und Technikforschung getroffen. Es ist geplant, die wichtigsten Beiträge in der neu aufgelegten Internet-Zeitschrift *Science, Technology and Innovation-Studies (STI-Studies)* dem interessierten Publikum vorzulegen.

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XIV Economic Forum The European Challenges: Security, Solidarity, Efficiency

Krynica, Poland, September 9-11, 2004

Conference report by **Marc Bogdanowicz, Joint Research Centre – Institute for Prospective Technological Studies (JRC-IPTS), and Arnd Weber, ITAS**

The Krynica Economic Forum¹ has established itself since the early 90s as the most important annual gathering of politicians, executives, and media representatives from Central and Eastern Europe, with over one thousand high profile participants from around 40 countries.

The Forum, organized by the Foundation Institute of Eastern Studies² of Warsaw aims to foster debate on regional development and enhance co-operation between countries in this region. Given the 2004 round of EU enlargement, the Forum had a very special meaning in 2004 and was thematically focused on “The European challenges: Security, Solidarity, Efficiency”.

The programme of the Forum was divided into nine main subject groups:

1. Macroeconomics, Economic Policy
2. Business, Management
3. International Politics, Security
4. Regions
5. Society
6. Education, Culture
7. Energy
8. EU and neighbours
9. Information and Communication Technologies

In each of the subject groups, several topical sessions, discussion panels, round tables and workshops were held. Among those, we personally participated in that on information and communication technologies (ICT). This one-day session, organised by the Institute for Prospective Technological Studies³ was based on past and current research about Information Society developments in an Enlarged Europe. The research program, to which ITAS has already contributed, aimed at understanding and identifying Information Society strategies for the European countries that would support their economic growth and social development. The latest study⁴ had been conducted by a consortium of national institutions from the 13 New Member States and Candidate Countries.

1 Assessment of State of Development

The morning session mainly concentrated on an overview of the results of that study with a focus on the status of Information Society developments in the New Member States. Its coordinator, Professor Pal Gaspar⁵ from ICEG EC (Hungary), presented the following conclusions.

Information Society Technology (IST) use across the 13 countries lags considerably behind both the EU-15 average and the figures for the individual countries of EU-15. In recent years, this gap has even widened rather than narrowed with regard to some crucial indicators (fixed telephone lines penetration rates, PC ownership, broadband penetration, etc.), though six countries clearly emerge as frontrunners: the Czech Republic, Estonia, Hungary, Malta, Slovenia, and to a lesser extent, Cyprus. Nevertheless, time series data also show several positive de-

velopments in these countries. For example, the speed of expansion of IST has significantly increased in recent years. Furthermore, governments have devoted increasing attention to this sector, as compared with the late 1990s. Finally, it appears that some countries will be able to leapfrog or to catch up with the EU-15 faster, provided competitive market conditions are fostered. The increase of mobile penetration rates, and the rapidly increasing level of Internet use show that very fast quantitative and qualitative development is possible in these countries, so long as there is commitment to putting the right policies in place and the available resources are fully utilised.

Concerning the development of an ICT sector, certain countries (mainly the Czech Republic, Estonia, Hungary and Malta) show a slight lead. Slovenia, Poland and Turkey also have some strength in ICT production, though this sector is relatively less important for their economies. ICT production capacity has developed in a specific way in each of these countries. However, total ICT output in the 13 countries is well below the EU-15 levels. The addition of this ICT output, after Enlargement, to the European total does not radically change the size of the EU contribution to ICT production worldwide. What may change, however, is the internal division of labour in ICT production between the old and new Member States, as the latter could be competitive enough to attract some ICT investment away from the existing Member States. Enlargement could therefore result in the relocation of ICT production within the EU-25.

The future of the ICT sector is very country-dependent. Some of the larger countries (Poland, Turkey and Romania) may be able to profit from the size of their domestic markets and develop a more competitive and stronger ICT sector, partly oriented towards domestic sales. In others (Hungary and Estonia), structural reforms could increase productivity and may help to overcome competitiveness problems. Thus these countries would maintain their leading position in ICT production in the region. Finally, some others (Slovenia, Czech Republic, Romania and perhaps Slovakia) could become more competitive by exploiting market niches where they have long-standing advantages over other producers.

Analysis of a range of socio-economic determinants of IST development in the late 90s shows that there have been real differences between the 5 “leading” countries (Czech Republic, Estonia, Hungary, Malta, Slovenia) and the others, which explain the better performance of the former group. The differences can be summarised as follows:

- Better structural, and economic legacies which have resulted in less costly structural reforms, smaller social and regional divides, and lower social costs
- A more positive approach to privatisation, liberalisation, and foreign direct investments
- Location has also been important: all five leading countries are close to major markets and sources of foreign direct investment and therefore they have been better integrated than others to the European production networks
- Early implementation of policies specifically focused on IST developments. Up until now, only a few of the new Member States and Candidate Countries have implemented effective IST policies. The experience of these few that made committed policy efforts early on, however, has demonstrated that the right policy can make a real difference to IST development
- Smaller social and regional divides were an important advantage as regards demand for ISTs.

Finally it was suggested by Gaspar that a mix of direct, indirect and ICT sector-specific policy instruments could be used to achieve the above targets. For example, more public funding should be directly focused on IST development (by supporting Broadband and the digitalisation of public services, improving content and widening access to the Internet and IST applications in both households and the SME sector). The provision of stable economic growth and the right macroeconomic conditions by governments will, in turn, favour IST development. More public money should be devoted to R&D, with an increased focus on applied research. Public/private partnerships could be effective means of increasing funds available for IST development and public sector reform. As regards ICT sector-specific policies, competitiveness could be stimulated by the reduction and

simplification of regulation, and lower taxes. Foreign Direct Investment (FDI) inflows should be encouraged and better integrated to ensure that the benefits spill over into the rest of the economy. Finally, specific policy instruments must be applied to ensure the necessary quantity and quality of human and physical capital – this would attract FDI and enable countries to compete in higher value-added ICT production.

2 Future Challenges

The afternoon session was intended to be more prospective, by identifying and then documenting the three emerging challenges for Information Society developments in the coming decade⁶.

The first challenge, presented by Mr M. Piatkowski⁷ from the Tigers think tank (Warsaw) is a response to Solow’s paradox: basically, the objective is to improve the productivity of a range of selected sectors through their technological modernisation and with the help of ICT. Improving our capacity of understanding which are the most promising economic sectors for the future, in particular in observing the performance of traditional (food, wood, metals, etc.) versus high tech sectors (ICT, chemistry, biotech, etc.) would help us identifying better which sectors to target.

A second challenge, presented by Mr G. Coomans⁸ from the Work Research Centre (Ireland) introduced the complex relation between demography, education and labour force supply. The author documented the fact that considering the dramatic changes in working age demography and the often low progression in educational levels, we are at risk of confronting a major issue of lack of educated labour supply during the present and next decade. Following the author, a crucial policy implication is the improvement of the access to modules of education and training aiming at generalising across Europe a tertiary level of education for a fast growing share of the population.

The third and last challenges were presented by Mr T. Huesing⁹, from Empirica (Germany) who defended the following point: as in the New Member States quite rapid economic growth is accompanied by growing social divides, in contradiction with what the

European model might be, these divides become priorities on the political agenda. Issues of digital and social divides are only to some extent connected with each other. Hence, the role of ICT in combating social disparities is an open question, referring much more to ICT use than to ICT access.

Several open debates echoed the speakers' points of view but also opened the issues – and the resulting research questions – to broader horizons:

- The New Member States and the Candidate Countries are obviously engaged in a catching-up process and much of our thinking is framed by this conviction. Still, they will not necessarily meet the objectives of total convergence with the “old” EU by 2010. The sense of urgency – “a hunger for success” - was observable in Krynica in all major debates and political statements: Europe cannot afford to postpone for another generation the effective catching-up that will consolidate European economy and cohesiveness. How does such political will affect our views on ICT?
- EU pressure is seen as a past – but also needed in the future – catalyst for Information Society policies development. However the agenda of EC policies should have a dedicated chapter for New Member States and Candidate Countries (e.g. eEurope with specific instruments per country).
- Priorities are to be set (such as investing heavily in education and tackling the ‘brain-drain’ phenomenon). Otherwise, New Member States will have a serious problem to soundly absorb the EU funds. Considering the scarcity of resources and the diversity of legacies and targets, the setting of priorities is an essential task both at national and European level. The relevant definition and targeting of Information Society policies towards growth and cohesion is higher than ever on the agenda.
- ICT are to be seen as enablers for the ongoing societal and economic changes these countries undergo. Their role in the modernisation of economic activities offers a major chance when considering the rapid rise of services and the re-industrialisation processes undergone by those countries. Addi-

tionally, the role of ICT in terms of social cohesion is to challenge the existing and often growing social divides in order to avoid that these divides undermine the credibility of the European societal objectives. This requires a priority for applications.

- Education is a cornerstone of today's and tomorrow's development strategies. While the educational systems of the New Member States account for one of their strongest assets, their further reform and consolidation in view of guaranteeing functional literacy, ICT skills and innovative managerial capacity, as well as overcoming the negative effects of a declining population, are seen as essential to follow-up with progress.
- Information Society projects are societal projects. They are in need for holistic policies, covering a broad range of themes from education and research to economy and taxation schemes. Nevertheless, some sectoral policies are also necessary, in particular in those few countries that have been able to take the opportunities of developing an export-oriented ICT industry.
- All above messages are to be passed to the EU policy makers, however, the communication – both ways – is still assessed as insufficient.

3 Notes on the Other Sessions

So much on the session on ICT. We wish to add some impressions from other sessions. For instance, there was a session titled “The weakness or dominance of Germany in the European Union?” In that session, there was strong criticism of Germany being a bad economic example not to be followed. Speakers such as Norbert Walter of Deutsche Bank pointed out that there are problems such as the mistakes made during reunification of the two Germanies, that there is a need to work harder and that e.g. Polish workers should have been allowed to work in Germany for increasing competition on the labour market. But it has also been pointed out that Germany's economy can't be in such a bad position as its share of world trade has been growing (Hans-Helmut Kotz, Deutsche Bundesbank).

In the session on “Europe and the USA – Partnership and Competition” panellists such as

Wojciech Bienkowski from the Warsaw School of Economics, Dariusz Rosati, former Polish Minister of Foreign Affairs, and Mark Kramer, Harvard University, expressed the view that the relationships between employers and employees will have to be changed throughout the EU. Hire and fire as in the U.S. would be preferable. It was said that the Scandinavian model would be *sui generis*, it would not be possible to transpose it to the rest of Europe.

4 General conclusions

This brings us to some general comments. It could not be overlooked that the frame for policy research, with regard to the role of ICTs, is changing. Areas in the East of the European Union are getting a more important role. While the successful integration of some 70 million inhabitants of the New Member States is a challenge, new challenges are emerging, concerning for example the integration of Turkey or some day perhaps the Ukraine. The European Union would then have borders with Iraq and Iran. Issues of the Islamic movements and of oil production could not be overlooked at the Forum. Several speakers pointed to the fact that the U.S. is spending between 45 and 50% of the global military spending and that Europe needs more military efficiency to cope with the ongoing challenges.

Notes

- 1) Krynica is a small mountain town, in the South East of Poland, situated at the very border of Czech Republic, Slovakia and Ukraine.
- 2) Fundacja Instytut Studiów Wschodnich: http://www.forum-ekonomiczne.pl/index_eng.php
- 3) The Institute for Prospective Technological Studies is a part of the Joint Research Centre DG of the European Commission. It is based in Sevilla, Spain.
- 4) Factors and Impacts in the Information Society – A Prospective Analysis in the Candidate Countries. EC Contract number: N 20089-2002-11 F1ED SEV HU
- 5) Gaspar, P., 2004: Factors and impacts in the Information Society. A prospective analysis in the New Member States and the Candidate Countries. Synthesis Report. IPTS, DG JRC, Sevilla, Spain. Available at: <http://fiste.jrc.es/pages/Krynica%20forum.htm>
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- 7) Piatkowski, M., 2004: The Potential of ICT for Development and Economic Restructuring in the New and Candidate EU Member States. Tigers. Warsaw, Poland
- 8) Coomans, G., 2004: The Demography / Growth squeeze in a Knowledge-based economy: The role of Education. Geolabour / Work Research Centre. Dublin, Ireland
- 9) Huesing, T., 2004: The impact of ICT on Social Cohesion: Beyond the Digital Divide. Empirica, Berlin, Germany

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Präsentation des ITAS-Projekts „Energie aus dem Grünland – eine nachhaltige Entwicklung?“ auf der Mitteleuropäischen Biomassekonferenz

Graz, Österreich, 26. - 29. Januar 2005

Kurzbericht von Konrad Raab, ITAS

Die Mitteleuropäische Biomassekonferenz 2005 hat an vier Tagen 920 Teilnehmer aus 28 Ländern nach Graz gelockt und kann somit als sehr erfolgreich bezeichnet werden. „Es gab einen intensiven Erfahrungsaustausch zwischen den neuen und alten EU-Ländern über den verstärkten Einsatz von Ökostrom, Biotreibstoffen und Ökowärme“, resümierte Dr. Heinz Kopetz, Vorsitzender des Österreichischen Biomasse-Verbandes und des Organisationskomitees.

Eröffnungssitzung

Gleich in der Eröffnungssitzung wurde eindrucksvoll dargelegt, welchen Stellenwert die Bioenergie in unserem zukünftigen Energiesystem haben wird und haben muss. *Karl Kellner*, Leiter der Bioenergieabteilung in der Europäischen Generaldirektion für Energie und Verkehr, stellte die Ziele der EU für die Nutzung Erneuerbarer Energien vor. Um bis 2010 die Anteile der Erneuerbaren Energien am Primärenergieverbrauch zu verdoppeln und die Anteile bei der Stromproduktion auf 21 % sowie beim Treibstoffverbrauch auf 5,75 % zu erhöhen, seien besonders im Biomassektor erhebliche zusätzliche Anstrengungen erforderlich.

Kjell Aleklett, Präsident der Association for the Study of Peak Oil&Gas in Schweden, schilderte die drohende Energiekrise und das