

# EUROPEAN PARLIAMENT

1999



2004

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*Committee on Development and Cooperation*

PROVISIONAL  
**002327(INI)**

27 March 2001

## **DRAFT REPORT**

on Information and Communication Technologies (ICT) in the developing  
countries  
(002327(INI))

Committee on Development and Cooperation

Rapporteur: Lone Dybkjær



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## PROCEDURAL PAGE

At the sitting of 18 January 2001 the President of Parliament announced that the Committee on Development and Cooperation had been authorised to draw up an own-initiative report, pursuant to Rule 163 of the Rules of Procedure, on Information and Communication Technologies (ICT) for development and the Committee on Industry, External Trade, Research and Energy had been asked for its opinion.

The Committee on Development and Cooperation appointed Lone Dybkjær, rapporteur at its meeting of 5 February 2001.

It considered the draft report at its meetings of xxxxxxxx 2001 and xxxxxxx 2001.

At the latter/last meeting it adopted the motion for a resolution by ... votes to ..., with ... abstention(s)/unanimously.

The following were present for the vote: ... chairman/acting chairman; ... and ..., vice-chairman/vice-chairmen; ..., rapporteur; ..., ... (for ...), ... (for ... pursuant to Rule 153(2)), ... and ... .

The opinion of the Committee on Industry, External Trade, Research and Energy is attached.

The report was tabled on ....

The deadline for tabling amendments will be indicated in the draft agenda for the relevant part-session.

## MOTION FOR A RESOLUTION

### European Parliament resolution on Information and Communication Technologies (ICT) for development (002327(INI))

*The European Parliament,*

- having regard to Rule 163 of its Rules of Procedure,
  - having regard to the report of the Committee on Development and Cooperation and the opinion of the Committee on Industry, External Trade, Research and Energy (A5-xxx/2001),
- A. Whereas the ICT revolution presents developing countries with, potentially, great possibilities to improve their economic situation, fight poverty and to spread information to all sections of their populations;
  - B. Whereas, at the same time, the ICT revolution could increase the divide between rich and poor countries, and between sections of their populations, unless adequate measures are taken to ensure that developing countries can participate;
  - C. Whereas approximately 80% of the world's population live in developing countries and have very limited access to information and modern means of communication, which is a great obstacle in being able to influence their lives;
  - D. Whereas, 700 million people are estimated to be online as of the end of 2001 but, at the same time, more than 2 billion people have never made a telephone call;
  - E. Whereas a constraint for the development of ICT in some developing countries is the legal and regulatory frameworks in place, which often make it difficult to attract necessary investment, particularly from the private sector;
  - F. Whereas, capacity building and training for both individuals and institutions are absolutely necessary in order to exploit the potential benefits of ICT;
  - G. Whereas innovative and small scale approaches such as micro-credit schemes can be important component in improving access to ICT in developing countries;
  - H. Whereas the EU, as the world's largest donor, should take the lead in formulating and implementing ICT policies that will work for the benefit of development countries;
1. Believes that ICT in development countries can have an important impact in the fight against poverty, as regards sectors as education, health, environment, rural development, and tourism;
  2. Believes that ICT can be an effective tool in empowering people in developing countries, particularly with respect to their economic situation, their ability to develop and participate in democracy, creating good governance and with respect to strengthening human rights;
  3. Believes that ICT could support already existing development strategies and programs making the delivery of these more effective as well as improving the final result;

4. Believes that ICT could make a positive contribution to job-prospects for developing countries, including the possibility of attracting service sector employment, which is currently concentrated to the industrialised countries;
5. Believes that ICT in development policy must aim to ensure that developing countries can rapidly take advantage of the new technologies and to ensure that the countries/groups that do not currently have the possibility to benefit do not fall further behind;
6. Believes that ICT access and improvement should be one of the targeted sectors eligible for support under the new private sector support programme in the EDF and in the forthcoming proposal for private sector support under the EU budget;
7. Believes that micro-credit schemes can improve access to ICT and thereby have direct impact on supporting the local economy and is an area which merits EU support;
8. Believes that support and dialogue in the area of legal and regulatory issues is a necessary component of development co-operation for ICT;
9. Calls on the Commission to formulate and develop a single and coherent policy for ICT within the EU development policy, and to make sure it is frequently up-dated;
10. Calls on the Commission to increase quality and quantity of the ICT portfolio within the provisions of the Commission's Development Policy (COM (00) 212). Especially in regard to regional integration, trade, health, education, food security and sustainable rural development strategies, environment and institutional capacity building;
11. Calls on the Commission to ensure that it has the appropriate numbers of staff to ensure in-house knowledge in project implementation; suggests on this basis that the Commission create an eDevelopment Unit in the EuropeAid Co-operation Office that can assist the sectoral units in mainstreaming ICT in development, as well as hosting the EC's Management Information System (MIS) and databases for development cooperation, linking with other departments and development agencies, promoting knowledge and experiences in these processes, and ensuring in-house training of staff;
12. Calls on the Commission to ensure that the individual country strategy papers explicitly include a description of the use of ICT;
13. Calls on the Commission to continue the positive work in the G8 Dot.force and to take the lead both as a policy co-ordinator and an innovator in other relevant international fora; believes this could include supporting the DOT force secretariat and participating actively, with Member States, in policy innovation and co-ordination; (in taking on the practical task of co-ordination);
14. Calls on the Commission to take the lead in co-ordination between Member States activities and other donors activities;
15. Calls on the Commission to build on strategic partnerships with Non Profit Organisations as well as with other actors in order to ensure the spread of ICT within developing countries;
16. Calls on the Commission to formulate how key thematic budget items like the NGO and democracy lines could contain provisions in favour of ICT within their respective themes;
17. Calls on the EU to support measures to increase the possibility for ICT use in local languages and to promote local content;

18. Calls on the Commission to ensure that co-ordination is maintained through frequent meetings in the EC / Member states Expert Group, including representatives from relevant stakeholder groups, particularly civil society and the private sector;
19. Calls on the Commission and the Member States to define a "division of labour" in the ICT field; believes that this could serve as a test-case to see whether the long-standing intentions of co-ordination, coherence and complementarity can be put into practice;
20. Calls on the Commission to prepare a follow-up report to the European Parliament and Council, at the latest in 2003;
21. Instructs its President to forward this resolution to the Commission and the Council.

## EXPLANATORY STATEMENT

### Introduction

Information and Communication Technologies (ICT) for development has been on top of the political agenda for the last couple of years. It has been embraced by different donors and, at the political level, by for example the G7/G8-meeting in Okinawa. International organisations such as the International Telecommunications Union (ITU), the World Bank, UNDP, and an increasing number of bilateral donors now have taken steps to formulate IT-strategies for developing countries.

The background being that both at the political level as well as among the donors there is increasing worry concerning the digital divide. It is recognised that the developing countries, in addition to more traditional development issues such as health, education, capacity problems, and trade barriers, could be further excluded because of the danger posed by lack of access to Information and Communication Technology. This would deny developing countries the opportunity to take advantage of increased globalisation of trade, investment and the exchange of services, which is connected to the spread of ICT. All in all, there is a risk of a widening gap.

ICT as part of the new economy will create a lot of new jobs and dismiss others. But what is maybe more important is the transformation of the old economy due to the breakdown of existing working structures and organisation, leading to a completely new set-up of the economy. The main reason for this being the disappearance of delay and distance, which was a key obstacle to world trade in the old economy. Digital convergence now changes this situation. Therefore a number of specific dangers threaten the developing countries, because of their lack of access to and knowledge of ICT. For instance:

- Developing countries will not experience the possible dynamo for growth and job creation that ICT as such could bring them
- Companies in developing countries will not be able to supply to the private sector in the industrialised part of the world, if their procedures/accounting systems/e-commerce facilities are not sufficiently developed. They risk not to be part of the new value chain, and may well even be severely prejudiced by dramatically increased global competition to the domestic economy created by introduction of the new electronic networks.
- New international capital will go to countries which have the facilities needed for the modern economy.
- Developing countries will not get access to the available knowledge that public, private and academic sectors make available publicly through the Internet.
- The educational system could become outdated, not being able to take advantage of new technologies.

## The digital divide

The digital divide can broadly be defined in terms of unequal possibilities to access, and make contribution to, information, knowledge and networks, as well as the possibility to benefit from the development enhancing capabilities of ICT. These are some of the most visible components of the Development divide. It reflects a combination of broader socio-economic factors and in particular – insufficient infrastructure, high cost of access, lack of locally created content, and uneven ability to derive economic and social benefits from information-intensive activities<sup>1</sup>.

The following concepts will be referred to throughout this report:

1. ICTs - Information and Communications Technologies - telephones, computers, hardware, software.
2. The New Networks: Internet, World Wide Web, and the global electronic networks including fixed and wireless (mobile) connectivity.
3. The Information Society: The global society as driven by knowledge, supported by ICTs and linked by the networks.

The experience of industrialisation shows a complex development of socio-economic factors within the country. However, this process does not happen in a vacuum, but need to be supported by access to markets and technologies.

But ICT can also offer opportunities to developing countries to make short-cuts in the development process (by-passing certain stages), through the so called "leap-frog development". For example by investing directly in modern technology such as digital connections and by applying ICT tools to deliver services in a cost-efficient way, like distance education, telemedicine etc. In some countries and regions, for example India and Costa Rica, some sectors are developing very fast, i.e. those where the application of ICT has given new impetus for economic growth, export orientation, well functioning urban areas and a better off middle-class. (Other examples are: Brazil, South Africa, Malaysia, and Tanzania).

Having said that, we have to realise that we are still in a situation where 2 billion people have never made a telephone call, due to constraints in telecommunication structures and price setting policies often out of proportion, combined with constraints in public and private money to be spent on this issue. But the mantra about privatising the telecom sector in developing countries and "everything will be fine", risks to benefit only the sector itself and the more well-off people who already have access to telecom facilities. It is necessary to include, at the same price, also more remote areas.

Left alone to markets we risk that the digital divide will widen further, between rich and poor countries and within the poor countries themselves. The market forces in the ICT sector are even stronger than in the traditional industrial sector because the "elimination of distance", and the speed of new developments.

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<sup>1</sup> Global Bridges – Digital opportunities, Draft report presented by the DOT Force in Cape Town, South Africa, 1-2 March 2001.

The conclusion is that this development can not be based exclusively on the private sector. We need public commitment from the donor side, the EU and others, and from the countries themselves.

As a major donor – more than half of all the world development aid<sup>1</sup> – the EU cannot live without an engagement and without an overall strategy in this field. If we do so we leave the initiative as well as the final content to other donors and the private sector.

The Commission has chosen 6 priority areas for EC development policy<sup>2</sup>. ICT is not included as a special priority field, but should be "mainstreamed" like gender-issues, environment, etc. Such a choice makes it even more important to have overall goals and strategies for the use of ICT. Mainstreaming without sufficient resources and expertise carries with it a risk that the sector at hand could remain uncoordinated or even forgotten. Also, important fundamental knowledge may not be in place when discussing related areas, such as trade. It is therefore of outmost importance to formulate a coherent strategy to ensure the right use of ICT in concrete actions, projects and programs.

The ultimate goal and purpose for such a strategy should be based on that ICT works for development, and not the opposite. ICT should be part of the development strategy and not solely for the benefit of the telecom industry and their supporters in the EU.

Such an overall strategy should aim to secure:

- A definition of the role of the Commission as well as the Member States. Also incorporating the role of European Investment Bank (EIB) as well as other financial institutions of the Member States.
- That the European Community plays a leading role as a donor, both bilaterally and multilaterally, for example within the UN-system.
- That the EU plays a leading role in various ongoing international initiatives: G8-dot.force, UN Task Force, etc.

This strategy in relation to other donors should be supplemented by EU's own internal strategy and goal.

The Commission should work with the developing countries to establish both: 1) top-down approaches and 2) bottom-up approaches. In both cases it is important to consider that needs differ between countries depending on their level of development.

1) The Commission needs to enter into a dialogue with the developing countries on how to foster maximum competition in order to bring down costs and increase the demand and, at the

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<sup>1</sup> EU and the member states gives 55% of the worlds development assistance ODA – (Official Development Assistance)

<sup>2</sup> 1) Trade and development, including the development of a trade policy, assistance with integration into the multilateral trading system and into the world market, including by trade-related technical assistance and support for increasing capacity in trade and competitiveness. 2) Regional integration and co-operation, including the tackling of transboundary economic, social and environmental problems. 3) Support to macroeconomic policies with an explicit link with poverty reduction strategies, in particular sector programmes in social areas (health and education). 4) Transport. 5) Food security and sustainable rural development strategies. 6) Institutional capacity-building, good governance and the rule of law, (COM (00) 212).

same time, secure equal access. This dialogue needs to approach issues such as the regulatory environment and licensing policies. Efforts to create regional markets and competition through regulatory convergence, as the EU did in the 1980s with the single market, can be instrumental in widening the market and increasing competition. In addition, wider policies should usefully be pursued to extend liberalisation, such as improved legislation for E-commerce, taxation, and contract law.

2) Next to the structural changes we need actions, that aim at creating a demand. These bottom-up-actions should also focus on widening the “networking” of economy and society, and to extend it to remote areas and poorer populations. In this respect, community access points could be instrumental in bringing down the unit cost for low-income people. Non-profit organisations like community-based organisations, etc, are natural partners in such a strategy. Wider development programmes, in traditional fields such as agriculture, health and education, should also be funded, particularly for poor populations – with support from ICT to improve project design, implementation and monitoring.

Both processes are needed. The top down approach is necessary to create a favourable regulatory environment as a precondition for increased competition and cost-based services that would increase demand. The bottom up approach, on the other hand, is necessary to help the demand emerge, particularly that of people with low incomes, rural populations, etc. These would be left out in a purely market-driven environment. Both approaches should blend and make an important contribution to the overall poverty reduction strategy of the European Commission.

Internally we must ensure coherence between all relevant actors both within the Member States and Commission. DG DEV need to ensure that all the work done on ICT takes into account the interests of developing countries. DG-Trade needs to be involved and ensure complementarity on policies, as well as voice the needs of developing countries in organisations such as the WTO, the International Telecommunications Union (ITU) and the World Intellectual Property Rights Organisation (WIPO). DG INFSO could also establish programs with the developing countries. In addition, DG-RTD could ensure direct co-operation with the developing countries within the framework of the 6th Research Program.

**A common strategy between EU and the developing countries could focus on the following subjects that follows below<sup>1</sup>:**

Not everything can be done everywhere. What should be chosen depends on the level of development and, more importantly, if interested and/or knowledgeable persons or

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<sup>1</sup> This section of sectoral examples is build on a synthesis from other reports, among others COM (97) 351 on Information Society and Development; UNDP Development Report 1999; ICT for Development: Dynamic Opportunities, UNDP, (Draft under Development), Submission to the Dot Force secretariat, 20 February 2001; Global Bridges – Digital opportunities, Draft report presented by the DOT Force in Cape Town, South Africa, 1-2 March 2001. Information and Communication Technology in Danish Development Assistance, DANIDA, Working Paper 15, May 2000; IT in Swedish Development Cooperation, SIDA, 1999; The Internet and poverty, briefing note 28, Panos, 1998; AP First Information Technology Policy-2000, Government of Andhra Pradesh, July 2000; The Information Society and Development – A Review Vol. I, 12 January 2001, European Commission; TerraViva Europe Daily Journal Vol. 3 No. 45

institutions, cultures, NGO's etc. can be identified. If this is possible we can create centres/persons of excellence through which a "dynamo effect" could be brought to bear on the development process. In relation to the preparation of country strategies ICT aspects, along the lines above, should be incorporated.

**Institutional capacity building:** Take onboard experiences on e-government (for ex, Andhra Pradesh, India), increase transparency and efficiency of state and local authorities. ICT as a tool for governments to facilitate the process of gathering and disseminating socio-economic data in public planning of development priorities and budget allocation and, thus, secure efficient macro-economic planning. Also, access to information is at the core of good governance and democratisation.

**Trade and development:** In practice, both large and small companies can improve business opportunities by taking advantage of ICT. A country such as India is already benefiting from a division of labour where western companies outsource their software-production, etc. A more basic example is the use of mobile phones to facilitate trade in Bangladesh. Other types of production, for example the textile industry, could take advantage of the fast speed in the transmission of detailed drawings of textile articles for production. This development is already evident today and holds great potential for future trade and co-operation among companies. Access to the Internet will also help limit the number of intermediary trade links. Better knowledge of market prices for raw materials will help producers achieve higher returns. At present, small-scale businesses rarely have access to market prices struck only a few hundred kilometres from their villages.

**Regional integration:** The idea of regional integration is closely connected to trade. The knowledge of what is produced in other regions, as well as the knowledge of raw materials etc. will help support regional integration as we have seen in Europe. Moreover, support could be provided for developing software in local languages, which could support regional integration.

**Tourism:** The Internet has established itself as a crucial distribution channel through which the tourism industry could promote and sell its destinations and products. Last year, globetrotters generated income of 476 billion US dollars. The Internet can facilitate affordable entrance for developing countries in attracting parts of this tourism and thereby economic growth.

**Basic-education & Higher Education:** The Internet may lower the cost and increase the speed of delivery of education in developing countries. Distance learning via the Internet and informal education resources would substantially supplement existing education infrastructure and provide students and educators with access to the latest information resources. Also, the potential of ICT is perhaps even more evident when it comes to higher education. As an example, easy access to information (international journals, databases etc.), communication, exchange of information and research results, are of enormous importance for knowledge creation. At the same time, it might help to limit the "brain-drain" problem.

**Health:** Health issues are of paramount importance in poverty reduction strategies. The Internet can give everybody access to medical information. Doctors and health workers in a number of developing countries are already part of virtual networks. ICT can also play an

important role in supporting medical research networks, provide and gather health-related statistics, monitoring of programs and policy formulation, etc. The Internet can provide early warning systems and enhancing the response capacity in cases of emergencies, i.e. floods, malaria epidemics, etc.

**Crisis prevention and humanitarian assistance:** In prevention of crisis and or humanitarian assistance, communication is an important pre-condition for prevention. Correct information about the actual situation in the crisis area is essential if aid is to be distributed to the right people at the right time. Databases containing information from observers and relief workers and information on available relief supplies, as well as early warning systems compiling relevant knowledge on pre-conflict zones are other ways in which ICT solutions may be employed in the context of crisis prevention and humanitarian assistance.

**Environment:** ICT can contribute to more effective environmental management by helping countries to monitor ecological conditions, and by providing early warning of significant threats so that prevention and mitigation measures can be activated. ICT can be used to bring pollution control and energy conservation systems to industrial operations<sup>1</sup>. ICT can help citizens act as environmental enforcement agents, alerting decision-makers to compliance infringements<sup>2</sup>. ICT can be used to facilitate the sharing of sustainable land and water management practices. ICT can help to reduce pollution through population decentralisation and large-scale telecommuting.

**Other issues of importance:** The commission should support capacity development, institution building, and training within the developing countries. They should make use of ICT for knowledge management for development. And favour a more pro-active use of EU thematic budget lines like NGO and democracy budget lines for projects with ICT content. One element of great importance would be to build and develop strategic partnerships with ICT stakeholders in North and South, including support to so-called 'centres of excellence', civil society, including NGOs, to deliver ICT to the poor and to improve good governance etc.

### **eDevelopment Units**

Given the intense competition in this sector, and the massive gap in financial and human resources between industrialised and developing countries, and between the public and private sectors, substantial help will have to be given to developing countries if the strategy of using ICTs to help reduce poverty and promote sustainable development is to succeed. The experience of the public sector shows that such assistance cannot be left only to existing trade or development officials, who often do not possess sufficient skills in or knowledge of ICTs.

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<sup>1</sup> Worldwide, environmental technology is a new and expanding industry. In 1992, estimated sales exceeded \$200 billion, with the industry increasing trending towards control and conservation, as opposed to clean-up technology. German firms are the world leaders with 21% market share. The U.S. is next with 16% share. Applications in developing countries remain largely unexplored, ICT for Development: Dynamic Opportunities, UNDP, 2001

<sup>2</sup> In Indonesia, officials discouraged by weak enforcement of water pollution standards created a public access database for rating the degree of firm compliance. Even before the database was up, firms rushed to improve their ratings. After publication, citizens' groups used the ratings to pressure under-performing factories to clean up. In the first 15 months, a third of under-performing factories complied with regulations, ICT for Development: Dynamic Opportunities, UNDP, 2001.

Moreover, the creation of ad hoc or informal liaison structures in this field in development agencies would not be sufficient.

In order to provide the necessary inputs and support, it is necessary to create eDevelopment Units in development agencies, including the EuropeAid Co-operation Office at the Commission<sup>1</sup>.

These Units would not develop a new priority ICT sector, but would mainly have the following functions:

1. Assist the line/sectoral units in the Agency to better use ICTs for the identification, appraisal, implementation and monitoring of projects in their fields (mainstreaming ICT in development)
2. Organise in-house training of staff in ICT for development
3. Host the Agency's database and Management Information System (MIS) – (in the Commissions case it should be rebuild from scratch)
4. Consult and exchange information with other departments and development agencies

Adequate resources need to be provided for the creation of an eDevelopment Unit at the Commission's EuropeAid Office, for a minimum five-year period, to meet these objectives. The operation of this Unit could serve as a pilot project for other development agencies, also those of the EU Member States.

### ***Conclusion***

Now, more than ever, we risk a widening digital divide if all is left to market forces. What is needed to seize this moment is a framework for guiding concerted action. To date, efforts to harness ICT's potential have all too often fallen short, largely because they have taken an uncoordinated and isolated approach. We therefore need a coherent strategy, which is agreed upon by the Council and the Commission.

Such a strategy should not exclude already existing development programs, but should instead aim at complementing these strategies. It must however, be viewed as absolutely essential that the Council and the Member States acts on bridging the digital divide. Without targeting this problem the EU cannot be said to have an overall strategy for development.

This initiative reports points at a framework for such a strategy. It does not claim, however, to be a definitive report. Instead it should be seen as part of a process that the Council and Commission need to engage in.

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<sup>1</sup> This proposal is also put forward by the Commission in *The Information Society and Development – A Review* Vol. I, p. ix, 12 January 2001. This report is based on the Commissions experiences and recommendations for the Development Council following a request in November 1997.