Foresight tools for participative policy-making in inter-governmental processes in developing countries:

Lessons learned from the eLAC Policy Priorities Delphi

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Technological Forecasting & Social Change
An International Journal

Keywords: Delphi; Latin America and the Caribbean; governmental; Information Society; ICT; development; foresight; multi-stakeholder

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ABSTRACT

The paper shows how international foresight exercises, through online and offline tools, can make policy-making in developing countries more participatory, fostering transparency and accountability of public decision-making. A five-round Delphi exercise (with 1,454 contributions), based on the priorities of the 2005-2007 Latin American and Caribbean Action Plan for the Information Society (eLAC2007), was implemented. This exercise aimed at identifying future priorities that offered input into the inter-governmental negotiation of a 2008-2010 Action Plan (eLAC2010). It is believed to be the most extensive online participatory policy-making foresight exercise in the history of intergovernmental processes in the developing world to date. In addition to the specific policy guidance provided, the major lessons learned include (1) the potential of Policy Delphi methods to introduce transparency and accountability into public decision-making, especially in developing countries; (2) the utility of foresight exercises to foster multi-agency networking in the development community; (3) the usefulness of embedding foresight exercises into established mechanisms of representative democracy and international multilateralism, such as the United Nations; (4) the potential of online tools to facilitate participation in resource-scarce developing countries; and (5) the resource-efficiency stemming from the scale of international foresight exercises, and therefore its adequacy for resource-scarce regions. Two different types of practical implications have been observed. One is the governments' acknowledgement of the value of collective intelligence from civil society, academic and private sector participants of the Delphi and the ensuing appreciation of participative policy-making. The other is the demonstration of the role that can be played by the United Nations (and potentially by other inter-governmental agencies) in international participatory policy-making in the digital age, especially if they modernize the way they assist member countries in developing public policy agendas.

Over the last decades, much has been written about the structural changes in societies and economies associated with the advent of modern Information and Communication Technologies (ICT) [1], [2], [3], [4], [5], [6] and [7]. Change continues at a rapid pace. We are continuing to see the emergence of technologies like the Internet and mobile phones with applicability to practically all kinds of human endeavours, some of them displaying unprecedented speed of diffusion (with the Internet having reached almost every fifth inhabitant of the world, and mobile telephony almost every second, in less than two decades). The digital paradigm is characterised by fast innovation cycles and accelerating technological progress. These factors have led to a high level of uncertainty concerning the options for, and implications of, this technological change. At a global level, the problem of the digital divide and prospects of digital opportunities for development have been underlined at the highest possible political levels, during the two phases of the United Nations' World Summit on the Information Society[1] (WSIS) in Geneva in 2003 and Tunis in 2005. This globally approved policy agenda spans a variety of subjects and sets goals to be worked on by the international community between 2005 and 2015.

Latin American and Caribbean (LAC) countries have responded to this global challenge by identifying the most urgent and important short-term policy goals for the region. The result was a selection of thirty areas of interest and seventy concrete goals to be implemented during 2005-2007, through a plan dubbed eLAC2007[2]. This Regional Action Plan for the Information Society was approved at the *Regional Preparatory Ministerial Conference of Latin America and the Caribbean for the second phase of the World Summit on the Information Society*, in Rio de Janeiro from 8-10 June 2005[3], and was seen as a first partial step towards the goals for 2015. The plan's purpose is to mediate between the ambitious goals of the global agenda, and the local demands of individual countries of the region, by identifying common regional priorities. The plan's nature is a short-term. Accelerating technological progress, proliferating applications, and the related uncertainty in this field of development, have forced policy-makers to opt for a short-term approach of no more than two or three years, allowing for continuous revision and adjustment to constantly changing challenges[4]. The logic applied here calls for a series of consecutive short-term Action Plans in order to implement the long-term vision until 2015.

During the execution of eLAC2007, significant advancements have been observed in the development of Information Societies in Latin America and the Caribbean [9], while at the same time an increased level of policy activity could be evidenced [10]. As a

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[1]   See: http://www.itu.int/wsis. Heads of State and government discussed the implications of the digital revolution and approved two ambitious agendas (Geneva Plan of Action, 2003; and the Tunis Agenda for the Information Society, 2005). It is part of a global political undertaking known as the Millennium Development Goals (see http://www.un.org/millenniumgoals/), which recognizes the role of ICT in enhancing development and focuses on partnerships with the private sector to "ensure that the benefits of new technologies, especially information and communication technologies ... are available to all".

[2]   For further details on the eLAC process see: http://www.eclac.org/SocInfo/eLAC

[3]   See the Conference portal: http://www.riocmsi.gov.br

[4]   The uncertainty associated with technological progress implies that even if there was an "optimum path towards an information society", in the sense of an ideal recipe for policy-making, the rapid pace of ICT development makes it unlikely that any such ideal could be grasped -the world would have moved on before it could be established [8]. This leads to the necessity of adaptive short-term policy-planning – which needs to be informed by a view of long-term technology development possibilities..

result, countries and international organizations evaluated the plan as a success [11] and decided to start the discussion about future priorities concerning the effective usage of ICT to tackle pending challenges in the LAC development agenda. The promises of effective ICT usage are multifaceted. These promises include economic growth and productivity, social inclusion, the modernization of public administration, education and health sectors, security and disaster management, cultural development, and many potentials. The Information Society Programme of the United Nations' Economic Commission for Latin America and the Caribbean (UN-ECLAC), acted as the technical secretariat for the Regional Action Plan eLAC2007. In response to the task of elaborating a new regional agenda for the year 2010, the Programme elaborated the "eLAC Policy Priorities Delphi". The exercise aimed to identify public policy priorities and strategic policy alternatives regarding the use of ICT for development in the LAC region, for the period between 2008 and 2010. It did so by systematically collecting, and analyzing information so as to provide results that can help to improve the quality of policy choices made in a public policy agenda. The Delphi policy process was conducted between April 2006 and February 2008, with the report of the Delphi exercise being used as an input for the new 2008-2010 Regional Action Plan eLAC2010. (A short description of the inter-governmentally approved eLAC2010 Action Plan can be found in the left-hand columns of the Annex to this paper, which also provides a general overview of the different topics and thematic areas on the agenda an Action Plan for the development of Information Societies).

Below we review this participatory exercise and highlight the lessons learned. It starts with a summary of particularities to consider when working on regional-level agenda-building on such a dynamic and cross-cutting topic as ICT in developing regions. It then presents the Delphi policy process, before drawing conclusions as to the conduct of foresight and participatory policy-making exercises, in developing countries and more generally.

Regional agenda-building for digital development in developing countries

A public policy agenda may be defined as "the list of subjects or problems to which governmental officials, and people outside of government circles who are closely associated with those officials, are paying some serious attention at any given time." [12: 3]. The agenda-setting process then, involves determining which approaches to understanding and tackling these "subjects or problems" are liable to be most effective ones. Policymakers require good advice as to these approaches, and for the strategic formulation of goals and of plans to achieve these goals. This may result in a shortlist of proposals. "Having a viable alternative available for adoption facilitates the placement of a subject high on a governmental agenda and dramatically increases the high placement of a subject on a governmental agenda" [12: 144]. The ensuing question for policy-making in the field of ICT in Latin America and the Caribbean is therefore *who* is in the best position to formulate this "good advice" and the required "shortlist of policy proposals" on a regional level? This section discusses how the consideration of this

question resulted in the decision to opt for a Policy Priority Delphi as the method of choice to determine the 2008-2010 Regional Information Society Action Plan.

At the two extremes, the choice is to opt either for a technocratic or a more democratic and participative way of securing such advice. A technocratic approach will involve relying on a group of experts who are members of a highly skilled and legitimized elite group ("technocrats" such as public government officials and those knowledgeable and well-connected people known in the U.K. as "the great and the good"). More participative approaches, in contrast, will aim to draw on a wider range of inputs as to the nature of problems and possible solutions. This dichotomy suggests that adequate knowledge to determine policy options may be found either within a small and centralized subgroup of society, or dispersed more widely as decentralized intelligence among an unlimited number of people. This duality has been at the heart of the governance question ever since institutional mechanisms were established to govern the fate of societies through political organization, including Athens's Polis, monarchic forms of governance, or different kinds of democratic governance in the contemporary world.

From the point of view of the prevailing political system and legitimization of public decision making, representative democracy is the current choice of governance throughout the LAC region. In practice, this represents an intermediate solution between rather "technocratic" and more "democratic/participatory" approaches to deciding who formulates "good policy advice". Elected and legitimized by popular vote, politicians and the public officials who serve them have the task of arriving at policy options that can rise to the challenges confronting their countries. In the words of James Madison, one of the founding fathers of representative democracy [13: 6]: "the delegation of the government ... to a smaller number of citizens elected by the rest ... [aims] ... to refine and enlarge the public views by passing them through the medium of a chosen body of citizens whose wisdom may best discern the true interest of their country". This logic of governance seems to have produced acceptable results throughout recent centuries. The task of elaborating a regional public policy agenda for ICT development in a developing region, however, can challenge important aspects of Madison's logic. Various particularities associated with ICT and international development suggest that it is beneficial to expand the circle of participation and to enrich the established mechanisms of representative democracy with the opinions of a decentralized group.

First of all, ICT is a pervasive technology with multisectoral impacts and implications. Common core technologies associated with digital information processing are extremely widely adopted. But the pace of adoption, the development of applications, the configuration of systems, and the modes of usage can evolve in dissimilar ways across different branches of the economy and society (e.g. firms, hospitals, schools, municipalities), and across organizations of different types (e.g. larger and smaller firms), and in different locations (e.g. metropolitan and more remote areas). The notion of creating Information Societies implies that the transformation affects every aspect of society. The cross-cutting nature of the transformations affects the development of infrastructure and science and technology, as well as the educational and health sectors, the economy and entrepreneurship, community and local life, cultural heritage, legislation, the management of disasters and national security, public administration,

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among many others. Knowledge concerning these patterns of digital development is thus distributed in a decentralized manner throughout society. Very few people having much overview of the overall contours of this development, let alone possessing insight into the variety of localized experiences and initiatives. But this also implies that the centralization of activities with any specific actor is liable to run into difficulties. The scope and diversity of the challenges make it improbable that a small group, in the public sector or elsewhere, can have developed a complete basis of information in all of these fields. This implies the need for a decentralized structure in the development of a public policy ICT agenda.

Second, uncertainty is very high in a field of such dizzying technological progress. ICT performance systems display exponential trajectories ever since they came into existence. The past 35 years of ICT development have been extremely fast and diverse, starting with the black and white Xerox text-processors developed by the Palo Alto Research Centre, passing by the PC and the first graphical PC operating systems, over the Internet and mobile phones, to wireless multimedia broadband computers through which millions of virtual avatars spend considerable amounts of time in massively three-dimensional multiplayer online environments.

The velocity of innovation, and the constantly changing supply-side and user-side environments make it extremely difficult for the public sector to gather all the necessary data to found its decisions on a solid information base – and to continue to do so on an ongoing basis. This uncertainty with regard to technological progress is especially severe for developing regions such as Latin America and the Caribbean, given that the great majority of technological Research and Development is exogenous to the region. This means that regional decision-makers are not even involved in the definition of choices that shape the final technological choices. In turn this means that the expertise to provide intelligence on future opportunities needs to be acquired from a wider audience, which might have better insights, such as the academic and private sector.

Third, efforts to create an international public policy agenda come up against the demographic and socio-economic heterogeneity of LAC countries. The region is host to countries with a population of more than 100 million (Brazil, Mexico) - and to others with less than 50,000 (Saint Kitts and Nevis). In 2008, telephone penetration is over 100% is some countries (Argentina, Bahamas, Barbados, Jamaica, Trinidad and Tobago) - but less than 40% in others (Bolivia, Cuba, Haiti, Nicaragua, Peru). There are LAC countries in which half of the population is already connected to the Internet (Barbados, Jamaica) - and others in which Internet penetration is less than 5% (Cuba, Honduras, Nicaragua, Paraguay). This heterogeneity means that experiences will be very diverse. The implication, then, is that a diverse group of people need to be involved in the search for "good advice" relevant for the region as a whole.

These three sets of considerations informed the planning and design of the eLAC Policy Priorities Delphi. This aimed to elicit decentralized intelligence that would be useful for preparing adequate policy choices. In accordance with Turoff's definition, a Policy Delphi is "a tool for the analysis of Policy issues and not a mechanism for making decisions" [13]. In this sense, the goal is to inform the traditionally closed circle of decision-makers in public offices, aiming to enable them to access knowledge dispersed

throughout society through open-ended consultations with the larger stakeholder community concerned with ICT for development. A similar widening of perspectives to inform decisions around Science and Technology has underpinned the Technology Foresight programmes that many countries instituted over the part 10-15 years [17].

But widening participation is not unproblematic. Should consultation be open to everybody – after all, uninformed people may opt for unrealistic policy choices? What about the danger that powerful private sector actors will use these new channels of participation to manipulate policy choices in their favour? Both possibilities have to be taken seriously. The first echoes the longstanding concerns expressed by critics of direct democratic systems, fearing that decisions will be made on the basis of fickle sentiment rather than deliberation and analysis. The second danger is especially relevant in the field of ICT, with the world's two richest individuals in 2007 being from ICT industries -- one of them having business priorities almost exclusively focused on Latin America's connectivity[5].

Opening up the consultation to everybody carries the risk of uninformed decisions. Students of public opinion frequently caution that ordinary citizens generally lack well-developed attitudes or opinions on most public issues [18]. Max Weber [19] famously argued that the mass public – across all social classes —thinks only as far as the day after tomorrow, and is always susceptible to emotional and irrational influences. Notwithstanding, handpicking experts carries the risk of including a limited selection of technocrats.[6] For practical reasons, the eLAC Policy Priorities Delphi opted for a mix between the criteria of self-selection and handpicking. Rounds one, two and four of the exercise were carried out virtually, receiving 1274 contributions from an open-ended group that was filtered by the criterion of self-selection – are you prepared to dedicate the time to fill out the online questionnaire? (see Figure 1). Since it took between thirty and forty-five minutes to complete each online questionnaire, and given the specificity of the nature of the topic, the willingness to devote sufficient time to it was a decisive criterion. Rounds three and five of the exercise were carried out by face-to-face consultations, via personal interviews of selected experts or face-to-face workshops with handpicked invitees. 180 contributions were achieved by this process of handpicking regional opinion leaders.

The threat of opinion manipulation by lobby groups is extremely difficult to control. Promoting the consultation with a very heterogeneous group of participants, spanning diverse industries and communities, is one way to reduce the potential influence of a particular lobby group. However, this cannot assure the absence of vested interests. Efforts to make the selection of Delphi participants more transparent, democratic, and representative would have been extremely resource-intensive. This would have been disproportionate for the intended purpose – since the eLAC Policy Priority Delphi is not a

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[5]   Carlos Slim Helú is a Mexican business man who controls Teléfonos de México (Telmex), Telcel and América Móvil. He was identified as the richest man on earth by Forbes Magazine in 2007, followed by Bill Gates, co-founder and chairman of Microsoft.
[6]   Even in the pioneering European Foresight exercises of the mid-1990s, a common experience was that of discovering that the implications of the technological developments that were being considered required knowledge that went well beyond that possessed by those recruited to participate in Panels – knowledge of such diverse issues as entrepreneurship and the problems of small firms, consumer behaviour and public opinion, impacts of tax and pension schemes, ethical issues around new technologies, and much else.

final decision making tool itself. Rather, it serves as informal input for the established system of representative democracy. Democratically elected representatives evaluate the usefulness and validity of the Delphi results. The Policy Delphi is not intended to undermine the legitimacy of representative democracy, but to enrich it with the opinions of a broader group enlisted into direct participation.

Similarly, the eLAC Policy Priorities Delphi supports multilateral policymaking. It feeds into established governmental processes carried forward in the form of the Ministerial Conferences held in Rio de Janeiro (June, 2005) and El Salvador (February 2008), under the auspices of the United Nations. This multilateral organization is the only inclusive intergovernmental body in today's world, and thus plays an important role in formulating and diffusing ICT policy.

In summary, this Delphi plays a role in constructing the policy agenda: with an approach that is (1) based on open-ended consultations that exploits the decentralized intelligence of the group "from the bottom up" (through the direct contributions to the Policy Delphi from a specific group of stakeholders, such as civil society, private sector foundations and academia), while (2) assuring the legitimacy of the process "from top-down" (through democratically legitimized bodies and their selected technocrats, such as national governments and their intergovernmental institutions, such as the United Nations system).

The eLAC Policy Priority Delphi

The eLAC Policy Priorities Delphi was carried out between April 2006 and September 2007 with the financial assistance of the European Commission's @LIS project[7]. Its design was inspired by the European Union's policy priority foresight experiences[8]. The natural starting point was the existing 2005-2007 Regional Plan of Action, eLAC2007.

The first Delphi round basically presented the thirty priority areas of this inter-governmentally consented Action Plan for revision and comments in the light of upcoming challenges. Four additional rounds of consultation followed, leading to a revised priority agenda for the period 2008-2010. The entire process was presented in a comprehensive report [23]. In February 2008 it served as the main input for the inter-governmental negotiations that led up to the approval of the 2008-2010 Action Plan eLAC2010, during the Latin American and Caribbean Ministerial Conference on the Information Society in El Salvador.[9]

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[7] @LIS - Alliance for the Information Society – is a Programme of the European Commission aiming to reinforce the partnership between the European Union and Latin America in the field of the Information Society. Its objectives are to establish dialogue and cooperation on policy and regulatory frameworks in key areas and to boost interconnections between research networks and communities in both regions reducing the digital divide and integrating Latin America into a Global Information Society. After the successful execution of the 2003-2007 total budget of €77.5m (€63.5m financed by the EC and the rest by the partners of the programme) @LIS is going into 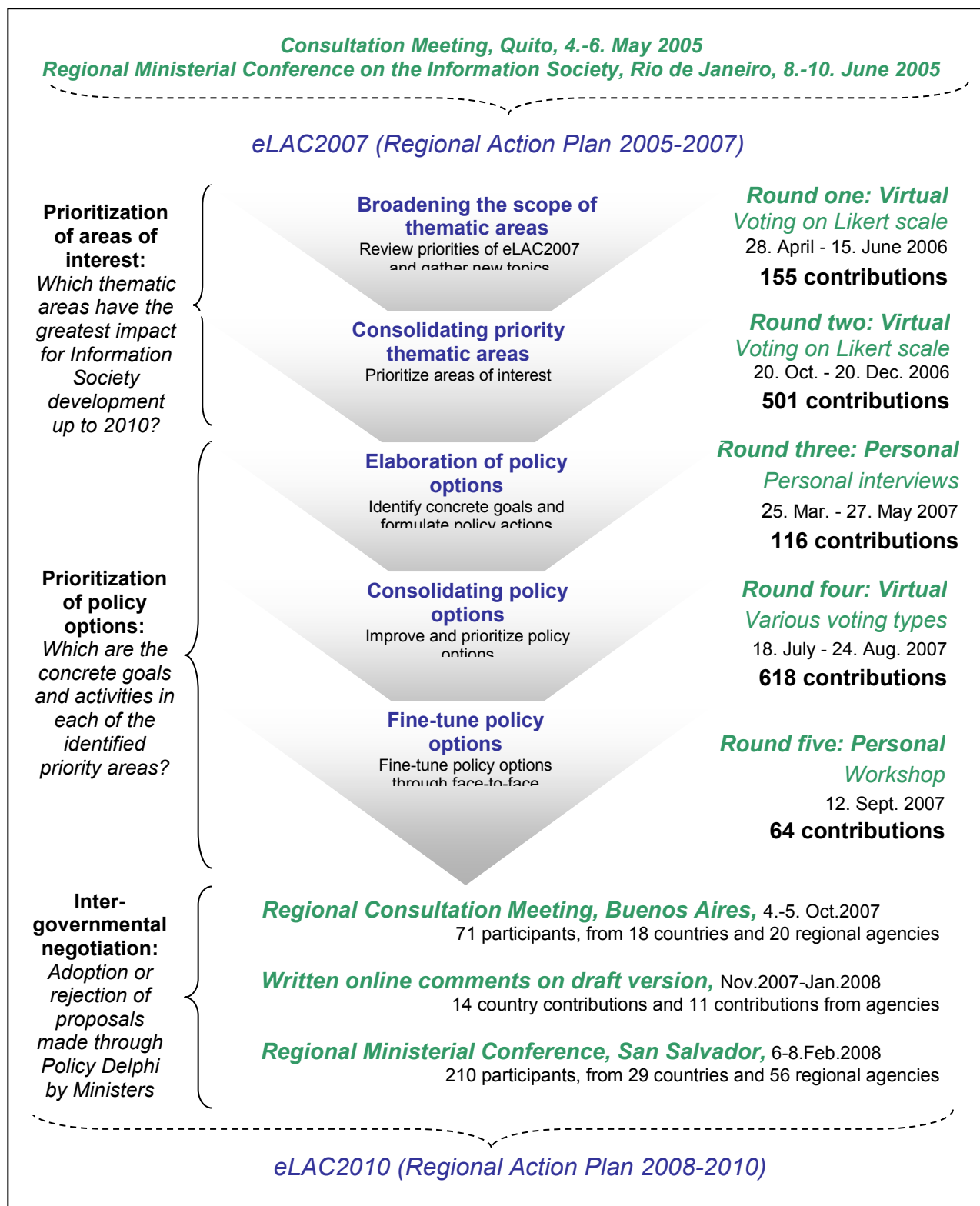its second phase for the 2008-2014 period. See http://www.dft.gov.uk/pgr/scienceresearch/futures/secsceniss/wrdsenariotoolv2

[8] The European Union has a strong track record of information society foresight exercises [20], in order to provide regular insight and updated intelligence for the eEurope2002-eEurope2005-i2010 agendas. Some recent ones include the Delphi-based EUFORIA scenarios [21], the survey-based STAR scenarios, the projection-based SEAMATE scenarios, the workshop-based ISTAG scenarios, the panel-based FLOWS scenarios and the [22] foresight exercise.

[9] See the Conference portal: http://www.eLAC2007.org.sv

Overall, the Delphi process received 1,454 contributions from public, private and academic sectors and civil society throughout *five* consecutive rounds (see Figure 1). The distribution of contributions for each round can be seen in the Figure. Following the general design of a Policy Delphi, it used the results of previous rounds as feedback during subsequent rounds, in order to enable judgments to be reconsidered in the light of opinions collected in those rounds and thus identify areas of emerging consensus and potential differences of interests [24]. The five rounds of the eLAC Policy Priorities Delphi were implemented through three online questionnaires (receiving 1,274 contributions) and two face-to-face consultations (180 contributions). The first two rounds were carried out online and aimed at the reconsideration of the priority areas of the (outgoing) Action Plan eLAC2007. The final three rounds were carried out through a mix of personal interviews and online questionnaires and aimed at the elaboration of practical policy options to work on the newly identified priority areas.

FIGURE 1: eLAC Policy Priorities   Delphi from eLAC2007 to eLAC2010

Consultation Meeting, Quito, 4.-6. May 2005
Regional Ministerial Conference on the Information Society, Rio de Janeiro, 8.-10. June 2005

eLAC2007 (Regional Action Plan 2005-2007)

Prioritization of areas of interest:
Which thematic areas have the greatest impact for Information Society development up to 2010?

Broadening the scope of thematic areas
Review priorities of eLAC2007 and gather new topics

Round one: Virtual
Voting on Likert scale
28. April - 15. June 2006
155 contributions

Consolidating priority thematic areas
Prioritize areas of interest

Round two: Virtual
Voting on Likert scale
20. Oct. - 20. Dec. 2006
501 contributions

Elaboration of policy options
Identify concrete goals and formulate policy actions

Round three: Personal
Personal interviews
25. Mar. - 27. May 2007
116 contributions

Prioritization of policy options:
Which are the concrete goals and activities in each of the identified priority areas?

Consolidating policy options
Improve and prioritize policy options

Round four: Virtual
Various voting types
18. July - 24. Aug. 2007
618 contributions

Fine-tune policy options
Fine-tune policy options through face-to-face

Round five: Personal
Workshop
12. Sept. 2007
64 contributions

Inter-governmental negotiation:
Adoption or rejection of proposals made through Policy Delphi by Ministers

Regional Consultation Meeting, Buenos Aires, 4.-5. Oct.2007
71 participants, from 18 countries and 20 regional agencies

Written online comments on draft version, Nov.2007-Jan.2008
14 country contributions and 11 contributions from agencies

Regional Ministerial Conference, San Salvador, 6-8.Feb.2008
210 participants, from 29 countries and 56 regional agencies

*eLAC2010 (Regional Action Plan 2008-2010)*

Source: own elaboration.

As the eLAC community had not established a network of active

stakeholders before embarking on this exercise, the design involved an open-ended opinion poll. The invitations to participate in the three online questionnaires were sent to about 7,000 contacts from the region gathered by the ECLAC Information Society Programme, with a request for further dissemination of the invitation. Thirteen regional institutions from the public and private sector and civil society, joined in this multi-stakeholder effort - disseminating the questionnaires over their e-mail networks, posting them on their Websites, and including them in their newsletters and bulletin boards. As already noted, participants were self-selected from this pool of contactees. This process attracted a relatively educated group, in which the majority of the participants were individuals with a master's degree or doctorate (62%) (Figure 2). Figure 2 also demonstrates that, at least in broad terms, the range of participants was highly representative geographically.

The distribution of participants in terms of regional and professional affiliation, gender and education level proved to be very similar over the three online rounds of the exercise; it may provide a rough idea of the structure of the general ICT-for-development community in developing countries. The high degree of participation of private sector informants (39%) shows the proactive interest of the industry. But it is also notable that the online method admitted traditionally underrepresented voices, such as from the Caribbean or Central America.

FIGURE 2: Distribution of 1,274 online contributions (Delphi Round one, two and four) according to education, professional affiliation, gender and geographic representation of participants
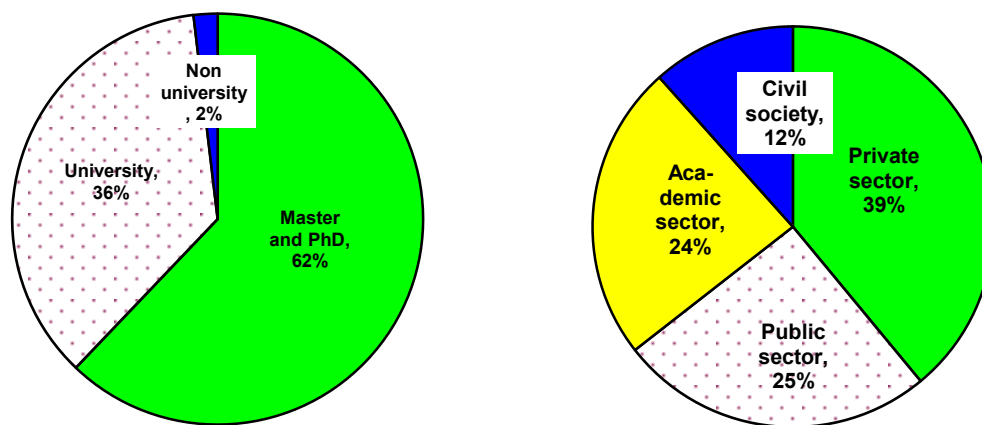
Gender	
Women	34%
Men	66%

Subregion	Participation	Real population
South America	69%	67%
Meso-America	23%	26%
Caribbean	8%	7%

Source: own elaboration. Note: The virtual consultation was carried out during Delphi rounds one, two and four (see Figure 1). Duplicates have not been removed from the presented count of contributions, given the limited possibility to do so (due to the anonymity of the open-ended group of participants and the fact that formal registration was not sought, since this might be a barrier to participation).

In agreement with common Policy Delphi practice [14], anonymity was assured during the virtual rounds, resulting in a focus of individual opinions, and not in organizational statements (these have been collected during the two face-to-face rounds). Anonymity enables participants to avoid potential repercussions and embarrassment, including the difficulty of publicly contradicting colleagues or superiors. The participants were invited to provide an e-mail address, without the need for self-identification, in order to be able to invite them to receive feedback and participate in consecutive rounds (for percentages of returning participants, see note in Figure 1). Of the 1,274 contributions in the three online rounds, 720 Email addresses have been obtained, thus laying the foundations for a more solid eLAC multi-stakeholder community. It was decided not to use a mechanism that would have allowed for anonymous tracking of participants (such as the option to register with an anonymous username and password). The analytical drawback of this choice is the inability to identify with certainty how many of the participants returned in each round. Nevertheless, it was consciously decided against this alternative given the implied risk of reducing the number of participants. Delphi exercises are not very common in LAC and initially it was not even clear if a critical mass of participants could be reached at all. The extra effort of registration and eventual doubts about the reasons behind a need for registration (i.e. for a political susceptibility exercise like the eLAC Policy Priority Delphi) might have lowered the participant turn out. The obtained Email addresses provide some insight on returning participants. While it is important to remember that the same person does not necessarily provide the same Email address in each round, we estimate that between 10-15% of the second round had already participated in the first round and between 25-35% of the last online questionnaire (fourth round) had already participated in the second round. This leaves a rather small group of people that participated consistently in all online rounds (less than 10% of the 501 contributors of the second round), but overall increasing amount of returning participants is interpreted as a positive sign towards the establishment of a committed stakeholder community (and a related participative culture) for these kinds of practices in LAC.

The two rounds of personal face-to-face consultations have also been carried out, through a selection of 180 regional opinion leaders, mainly government representatives, officers of international organizations, and researchers and experts from academia, the private sector and civil society. The names and affiliations of the participants of the face-to-face rounds are listed in the final eLAC Policy Priority Delphi report [23] and attest the representativeness of this international multi-sector exercise.

Most Delphi studies ask for forecasts of *when* various developments are liable to occur, or *how far* such developments will have progressed by a particular point in time. The present study first used a **Policy Delphi** approach, focusing on the extent to which various trends and actions might contribute to overall goals. Subsequently, a **Goals Delphi** was used which examined what targets should be associated with particular goals, or how far particular goals were prioritized. For example, the 2005-2007 Action Plan eLAC2007 covered thirty thematic areas, related to issues like public ICT access centres, computers in schools, connectivity of hospitals, ICT alphabetization and training of the work force, digital management of disasters, regional backbone infrastructure,

telework, required legislative frameworks, e-government, among others (see the Annex for brief characterization of the eLAC issues). The questions to be answered by the first two rounds of the Policy Delphi focused the relevance of these, and other thematic areas, for the period 2008-2010. Thematic areas were prioritized and ranked. Rounds three to five focused on the formulation or reformulation of concrete goals to move forward in the identified thematic areas. The consultations aimed at the determination of the aspired level of connectivity, the intensity of training programs, the kind of work that would need to be done on various legislative challenges, and the creation of regional working groups to deepen comprehension about specific issues, among other policy goals.

A major characteristic of a Policy Delphi is that participants are presented with various voting dimensions [14]. Traditionally, the preferred voting dimensions include dimensions are desirability and feasibility, as are consistency with existing values and anticipation of future constraints [14, 15]. The subjects addressed are complicated ones, but – like more conventional Delphis - Policy Delphi questionnaires are necessarily limited in terms of their scope and depth. The eLAC Policy Priority Delphi had the ambition to mobilize the largest number of stakeholders possible, fulfilling an advocacy and network role, which led to the decision to simplify voting dimensions by summarizing several of the possible evaluation criteria in the question into one major variable. In this sense, the eLAC Policy Priorities Delphi asked the participants to themselves synthesise the possible evaluation criteria in the question into one major variable for each issue addressed. They were asked to assess the impact of each thematic area for "the development of Latin American and Caribbean Information Societies for the year 2010".

Another characteristic of a Policy Delphi is that it aims at determining the areas of disagreement among groups of participants [14]. The delineation of differing views aims at providing an opportunity for the recipient audience members to prepare their respective cases adequately (in our case the Ministerial Conference that will finally approve the eLAC2010 Action Plan). The questionnaires of the first two survey rounds asked participants to differentiate between economic, social and political impacts for development and to evaluate each one of them on a Likert scale from "negative impact" to "positive impact". This information then allows analyzing the degree of consensus and disagreement between various groups, such as subregions (South America, Meso-America, Caribbean) and participating sectors (Public Sector, Private Sector, Civil Society, Academia).

The choice of these questions allows to gather enough information to satisfy the defined goals of a Policy Delphi, without demanding too much of the participants' time. It is important to point out that throughout all Delphi rounds, participants have always been invited to write and hand in open comments and ideas. The attained summary insights were complemented in rounds three and five of the Delphi by means of face-to-face consultations and personal interviews. These provided the opportunity to dig a little deeper into the different opinions, and to explore the underlying arguments and patterns of reasoning associated with different topics, and with specific priorities and policy actions.

The five consecutive Delphi rounds

The thematic areas addressed in the **first Delphi round** (during April and June 2006) were based on the thirty priority areas for development of the information society in LAC countries that the countries of the region had identified in their 2005-2007 Regional Action Plan (eLAC2007). 155 participants took part, using the virtual eLAC platform[10] to rank these thirty areas (see Annex) by social, economic and political impact for development up to the year 2010, on a Likert scale from one ("negative impact") to five ("positive impact"). Since the dynamics of the ICT revolution are ongoing, they were also invited to suggest new fields of interest to be considered. The analysis of the first round [16] shows that participants esteem the greatest impacts for social development from thematic areas related to access to ICT (connectivity and equipment diffusion), the largest impacts for economiv development from areas related to capabilities (training and education), and the greatest impacts for political development from policy areas related to the coordination of activities across sectors.

In the **second Delphi round**, during October and December 2006, a revised ladder of 47 priority issues was displayed, in order to construct a fresh impact ranking, including the thematic areas of eLAC2007 (ranked according to the first round results), as well as suggestions for new thematic areas, such as "e-democracy", "electronic management for agriculture and fishing", "content for mobile phones", "ICT connectivity for tourist centres", among others[11]. This time, 501 contributors from twenty-two LAC countries answered the online questionnaire. Connectivity for schools and local governments, ICT training for enterprises and the workforce, e-government and national Information Society strategies and agendas were identified as the top priorities throughout the region.

In order to get a general idea of the magnitude of the differences in opinion among subregions (South America, Meso-America[12], Caribbean) and participating sectors (Public Sector, Private Sector, Civil Society, Academia), a simple polarization index was adopted from [15]. In his article, Schneider proposes to compute the absolute value of differences of the average vote for each one-to-one combination of subgroup pairs. Following this method, the average difference among each pair of groups was computed for the votes on the 30 thematic areas of the first round, and the 47 thematic areas of the second round. The results can be seen in Figure 3.

### *FIGURE 3: Polarization Index for Subregions and Sectors of professional affiliation of participants*

First Round Subregions   *First Round Sectors*

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[10]   The platform was set up at: http://www.eLAC2007.
Solutions, based on the tool GroupMind Express.
[11]   For the ranking that resu
http://www.cepal.org/socinfo/noticias/paginas/8/26998/RANKI
second round, including all
http://www.cepal.org/socinfo/noticias/paginas/8/26998/Rankin
[12] For the purpose of this study, Meso-America is defined as C

Second Round Subregions

Second Round Sectors
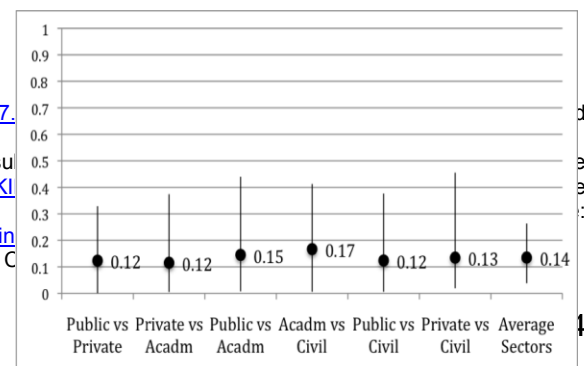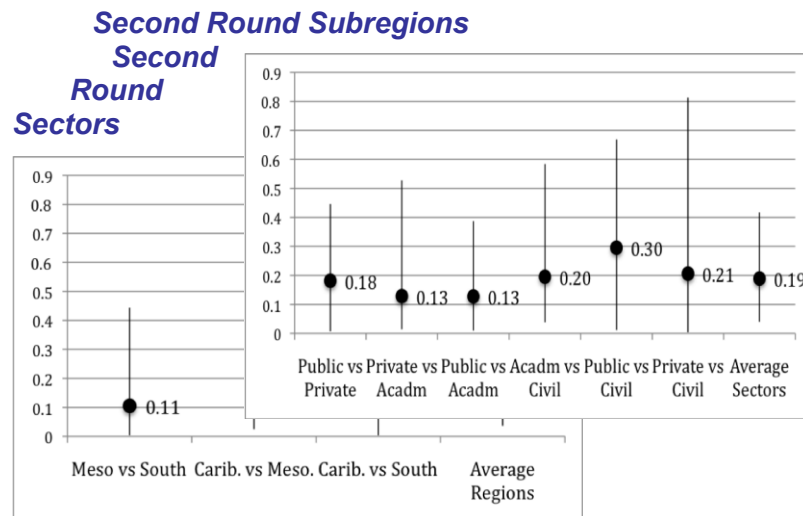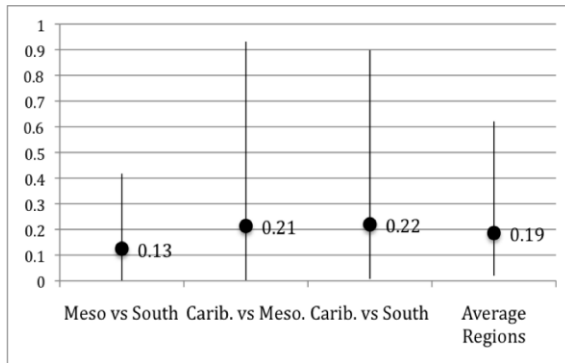
Source: own elaboration.

The first conclusion from Figure 3 is that despite the notorious heterogeneity in the region, the results shows a striking coincidence of interests and a surprisingly large and stable consensus (on average the differences are less than 0.2 on a Likert scale from one to five). This has been a positive surprise and shows the feasibility and readiness of the LAC region to create and foster a regional vision and policy agenda. While it is the declared goal of a Policy Delphi to identify areas of disagreement [14], the politically sensitive environment of the eLAC Policy Priority Delphi motivated the project team to highlight and foster this important evidence of a concerted regional outlook on a common challenge. The risk of political escalation is always latent in inter-governmental processes and LAC governments do not have any obligation to approve a Regional Action Plan. Care needed to be taken in order to foster a climate of cooperation and compromise, which then enables the creation and commitment to an innovative policy tool such as eLAC.

However, the graphs allow the identification of several trends in disagreements. As expected, among subregions the difference in opinion of the Caribbean sticks out. In both rounds, it becomes clear that the small island States of the Caribbean have somewhat different priorities than South- and Meso-America. Regarding the disagreement among the various groups of professional affiliation of participants, the first round shows a pretty harmonious picture, while in the second round civil society takes up its traditional advocacy role and seems to increase opinion polarization by returning to their habitual role of opposition of the public and private sectors. It is also interesting to note that in the first round, the consensus among professional sectors was larger than the consensus among regions, while in the second round, more disagreement could be fond among sectors than among subregions. We will refer to specific cases of this polarization index (P.I., as the average of the Subregion and Sector values of the second round) throughout the rest of the article.

Given the need for prioritization that underpins the existing eLAC2007, the top thirty priority areas (as identified in the second survey round) were selected for the rest of the Delphi. Twenty-three of these areas of interest coincided with eLAC2007, while seven new issues had entered the list of regional ICT priorities.

In terms of topics that were dropped, it is somewhat surprising that the participants did not consider that thematic areas such as "free software and open source software" (ranked 33 out of 47) and "Internet Governance" (ranked 37) would have a large impact on LAC development up to the year 2010. Both issues took up a large share of the discussion that took place during the World Summit on the Information Society (WSIS, 2003-2005) - it seems that the broader ICT-for-development community assigns a different importance to these controversial issues than their political representatives. While the polarization index shows a large degree on disagreement on the Internet Governance issue (0.30 as the average of Subregion and Sector P.I. of second round), the low evaluation of the impact of free and open source software seems not as controversial (P.I. of 0.16). Another thematic area which did not make it into the top thirty priorities was the "local supply of hardware-related goods and services" (ranked 42) – this is only a concern of larger countries, such as Brazil, in which the thematic area reached rank 31[13], and generally there was a fairly strong consensus on this issue (P.I. of 0.09).

Among the newly identified areas of interest are: "electronic democracy" (rank 10), the "inclusion of the gender perspective" (rank 16), "distance medicine" (rank 25), "intellectual property and copyright" (rank 26) and "Voice-over-Internet-Protocol" (rank 29). This reorganization of priority areas at the time of the second Delphi round suggested some reprioritization of main concerns since the outgoing Action Plan eLAC2007 had been approved. Later, this paper will consider how far the final version of the inter-governmentally approved new Action Plan eLAC2010 adopted these newly identified priorities.

The **third Delphi round** consisted of personal interviews with 116 experts from the public and private sectors, academia, and civil society, from nineteen countries. The interviews were intended to result in the formulation of concrete goals and activities to implement the 30 priority areas that had been identified in the second survey round. The input that was received by the project team during the interviews was immense, partially consisting of very unique and creative ideas, and partly recurring to well-known policy options.

In order to facilitate work on the thirty priority areas of a new Regional Action Plan, the project team needed to filter this input. It followed two simple rules to select 100 goals from the material:

- Policy options and goals need to be quantifiable and measurable (results-oriented); and/or

- Policy options and goals need to rely on existing international mechanisms, in the sense that specific action-oriented international agencies or institutions have to be identified that actively work on this challenge in the region (action-oriented).

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[13]   For   the   individual   country   ranks   see: Argentina (http://www.cepal.org/socinfo/noticias/paginas/2/27002/Argentina.pdf), aNNd similar pages for Brazil (.../Brasil.pdf), Chile (.../Chile.pdf),   Colombia   (.../Colombia.pdf),   Mexico   (.../Mexico.pdf),   Peru   (.../Per%FA.pdf)   and   Venezuela (.../Venezuela.pdf)

The two rules aim at avoiding "utopian wishful thinking" at contributing to the practicality of the plan's implementation (and its monitoring and follow-up). They helped to narrow down the scope of goals considerably, leaving the project team with 100 potential goals have that could facilitate advancements in the thirty identified priority areas. Twenty-four of the 100 concrete goals were mainly results-oriented and therefore quantifiable, while the remaining seventy-six goals were mainly action-oriented and more qualitative in nature. The project team was responsible to assure a harmonized and understandable formulation of the selected 100 goals and for the respective translation in English, Spanish and Portuguese.

The goals were submitted to the regional stakeholder community for ranking during July and August 2007. In this **fourth round** of the exercise, 618 contributions were received with a view to fine-tuning the contents of the goals. For the quantifiable results-oriented goals, the participants were asked to identify a target number, expressed in absolute and relative terms. For example: "Train [*select from the following four choices: 100% / 75% / 50% / 25%*] of teachers in the use of ICT or [*select from the following five choices: increase by ⅓ / increase by one half / increase by ⅔ / double / triple*] the share of so-trained teachers." The identified target numbers are expressed as regional averages for Latin America and the Caribbean as a whole. For the qualitative action-oriented goals, participants were asked to evaluate each activity's importance to the regional development agenda up to 2010, on a Likert scale from one (not important at all) to five (very important), and to identify agencies that are active in the field and could potentially help to implement them.

The **fifth and final round** of the Delphi exercise was a face-to-face consultation with the main public- and private-sector agencies and international NGOs. This inter-institutional meeting took place on 12 September 2007 at ECLAC headquarters in Santiago, Chile. Sixty-four experts from fifty institutions helped to refine the priority agenda for 2010. Twenty of these institutions were intergovernmental organizations from the region, eighteen were public sector institutions, ten were private sector foundations and entities, nine were civil society institutions and NGOs, and seven were academic networks and institutions active in the region. The final proposal for a new Regional Action Plan contained sixty-three concrete goals in six Chapters (see [23]) - in comparison with eLAC2007, which included seventy goals in five Chapters (see Figure 1 for a schematization of the five rounds and Annex for a comparison between eLAC2007 and eLAC2010).

Evaluation of the effectiveness of the Delphi: the acceptance by the inter-governmental process

The complete report, with its final proposals [23], was presented at the regional consultations that took place in Buenos Aires on 4 and 5 October 2007. These consultations served as input for the inter-governmental negotiations leading up to the Ministerial Conference on the Information Society in Latin America and the Caribbean, which was held in San Salvador on 6-8 February 2008. This inter-governmental

Conference approved the new Action Plan eLAC2010 – this is the substantive part of the so-called "San Salvador Commitment"[14]. Based on the sixty-three goals of the Delphi proposal, eLAC2010 contains eighty-three concrete goals following the same six Chapter format proposed by the eLAC Policy Priority Delphi result. The following sections will explore the changes, additions and droppings of the goals that were identified in the Policy Delphi, as compared with the officially approved Action Plan. This will then allow us to form an opinion about the effectiveness of the exercise, and therefore its success or failure.

The evolution of goals depicted in Figure 4 suggests that an interval of three years can be a reasonable period to review a policy agenda in fields related to rapid technological change. Only 20% of the goals in eLAC2010 are very similar to goals in eLAC2007 (almost literally adopted, including minor changes without substantive importance). Half of the goals have been adjusted to a changing environment. Around 30% of the goals of eLAC2010 are completely new on the agenda, with no equivalent in the old Action Plan (see Annex). The figure also reveals that 60% of the goals of the 2008-2010 ICT policy agenda (fifty out of the eighty-three goals) were already found in the proposal of the Policy Delphi results and were maintained by the policy makers throughout the inter-governmental negotiations until their final appearance in the officially approved version of eLAC2010[15].

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14   For a complete version of the San Salvador Commitment see: http://www.eLAC2007.org.sv
15   This is in spite of their being no direct recognition, in the final political document approved by the Regional Ministerial Conference, of the input and contributions made by the regional stakeholder community towards the elaboration of the goals through the Policy Delphi.

FIGURE 4: Goals of eLAC2010 in comparison with goals of eLAC2007
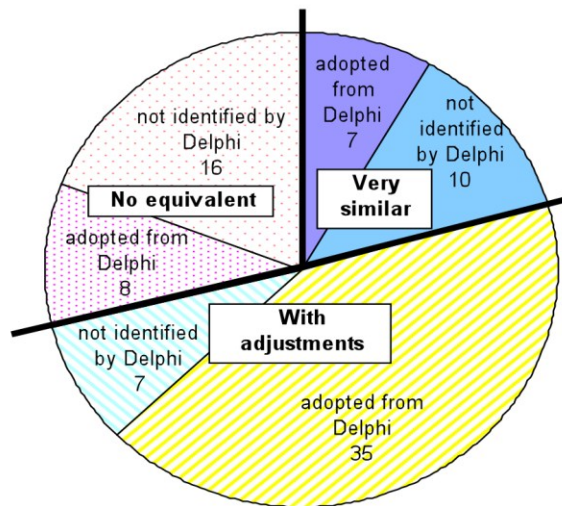
Source: own elaboration (see Annex), based on San Salvador Commitment, eLAC2010; and final eLAC Policy Priorities Delphi Report [23].

Figure 5 takes a closer look at the relation between the eLAC Policy Priorities Delphi results and the final political agenda eLAC2010 agreed on an inter-governmental basis. It shows that thirty-eight of the eighty-three goals of eLAC2010 have been adopted by the inter-governmental Conference almost literally from the Delphi results (46%). Notably, the quantitative, measurable goals stand out among these. It seems that governmental policy-makers respected the expertise and knowledge of the wider community of Delphi participants in setting realistic quantitative benchmarks for connectivity and other targets. Only thirteen goals (13%) proposed by the Policy Delphi exercise were actually rejected by the governments (in the sense of their not appearing in eLAC2010). Governmental representatives also brought their own current (and sometimes very specific) concerns to the table and introduced sixteen new goals, such as the creation of a regional education content market, promotion of IPv6, geo-referenced information systems, technological waste and garbage, among others (see sixth column in Annex). Even though most of the newly introduced goals (nine) did not count with a concrete policy formulation in the final Delphi proposal, they are in agreement with the thematic areas identified by the second Delphi round. Then again, the governmental representatives resuscitated seventeen goals from the old eLAC2007 agenda (which makes up 20% of the new eLAC2010). It seems that decision-makers were comfortable with the language and formulations previously agreed around these earlier -debated goals, and/or they did not want to tamper and meddle with the established political consensus. The resuscitation of these goals makes the eLAC2010 agenda much closer to its predecessor eLAC2007. The Delphi proposal was considerably more radical in its suggestions for change. But political processes seem to favour the safeguarding of an established and balanced consensus, as opposed to endorsing major change – at least on this occasion.

Two conclusions can be drawn from Figure 5. First, as a result of the political desire to resuscitate old goals from eLAC2007 and at the same time to introduce new goals, eLAC2010 is longer than its predecessor (eighty-three instead of seventy goals). This follows the political logic of maintaining and adding to the original formulations, without being willing to reduce, simplify and prioritize.

Second, a considerable number of goals that appear in eLAC2010 are in agreement with the broad thematic areas that were identified in the second Delphi round, but that do not appear as a concrete goal suggestion in the final Delphi proposal. (This applies to nine of the goals that have been "newly invented" by policy makers, and fifteen of the goals resuscitated from eLAC2007). This suggests that final rounds of the Delphi (rounds three to five) had difficulty in translating the identified thematic areas into the desired policy goals. For example, the second Delphi round identified the thematic area of "Regional infrastructure and interconnection of networks among countries" as one of the top priority areas (rank 11). But the policy goals elaborated during rounds three to five of the Delphi did not foresee the necessity of promoting IPv6 (Internet Protocol version6)[16] as part of this challenge. Similarly, the thematic area of "Legislative Frameworks" was prioritized during the second Delphi round (rank 21). But successive consultations during Delphi rounds three to five did not result in the formulation of separate policy goals for "digital signature", "electronic payment", or "electronic contracting", which have been introduced by policy makers during the inter-governmental negotiations during the Ministerial Conference in February 2008. In short, while the Delphi was able to anticipate the majority of the broad interests of policy makers, it was not, then, able to anticipate how these thematic areas would translate into concrete policy actions. There appear to be limits to the scope of elaborating qualitative policy goal formulations in a collective manner, at least when resources limited. The 180 personal interviews might not have been sufficient (in number or range) and the methodology to collectively formulate policy goals through digital media (such as intended during the fourth Delphi round), might not have been sufficiently sophisticated to assure that the broad thematic areas of interest would be translated into all relevant policy goals.

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[16]   Internet Protocol version 6 (IPv6) is designated as the successor of IPv4, the current version of the Internet Protocol, for general use on the Internet. The main change brought by IPv6 is a much larger address space that allows greater flexibility in assigning addresses.

FIGURE 5: Goals of eLAC2010 in comparison to goals proposed by Policy Delphi results
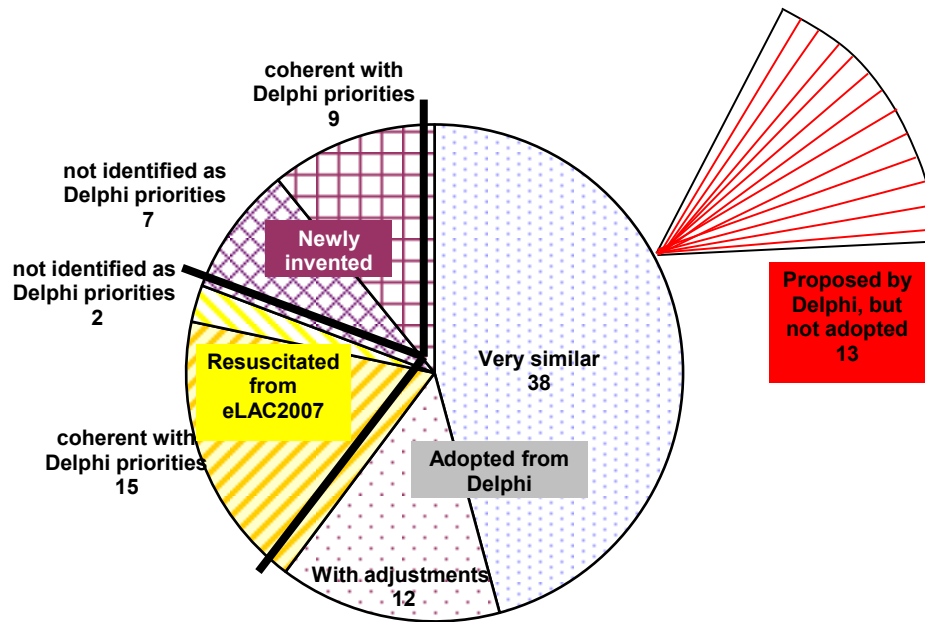
Source: own elaboration, see Annex, based on San Salvador Commitment, eLAC2010; and final eLAC Policy Priorities Delphi Report [23]

Let us consider the nine goals that governments included in the eLAC2010 Action Plan, though they had not been among the priorities identified by the Policy Delphi – and also take a look at the thirteen policy options rejected by the public officials. This will give us further insight on the dynamic between the Policy Delphi and its main beneficiaries, the Ministerial Conference.

Among the nine goals that have been adopted by the Ministers against the opinion of the Delphi participants, the politically relevant goals of "Internet Governance" (goal 72 of eLAC2010, with a very high disagreement of 0.30 P.I. average among subregions and sectors in the second Delphi round), "software development" (goal 74 of eLAC2010, middle P.I. of 0.16) and "hardware and industry development" (goals 50 and 53, eLAC2010, high consensus with P.I. of 0.09) stand out. During recent years both of these thematic areas have received much political visibility and attracted above-average political attention in the region. To justify the inclusion of these goals despite the Delphi proposal, governmental officials argued that the wider ICT-for-development community might not fully recognize the importance of Internet Governance for development of sustainable Information Societies, and likewise the strategic importance of ICT production capacities[17]. Though the wider stakeholder group of Delphi participants

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[17]   During the negotiations, one governmental official used a metaphor to justify the inclusion of these goals. According to some Latin American narratives, the indigenous inhabitants of the region had not been able to recognize the ships of Christopher Columbus and other colonizers during their week-long anchoring in front of the coasts of the Americas. They had never seen such a thing as a ship on the open ocean, and their cognitive processes could not

considers that these issues do not have a major impact on regional development in the years to come, governmental representatives insisted on these issues for development in the digital age.

With regard to the thirteen policy goals proposed by the eLAC Policy Priorities Delphi that the Ministerial Conference rejected, no straightforward explanation was given at the time, nor is it easy to find a common thread. But some points are notable:

- Some of the newly suggested priorities have been rejected by the inter-governmental group. A policy action to foster "distance and telemedicine" (goal 25 of the final Delphi proposal, see [23], and a slightly elevated P.I. of 0.23) was rejected, as were the regulatory debates about "Voice-over-Internet-Protocol" (goal 18 of the final Delphi proposal, with a rather low P.I. of 0.13) and "intellectual property" (goal 49 of the final Delphi proposal, with a middle P.I. of 0.20). The latter two are critical issues of public concern, but are also delicate issues on the international policy agenda, involving strong industry interests. Even though the Polarization Index shows that there was no extraordinary disagreement among the Delphi community on these issues, decision makers were not able to find common ground. It might be that the positive spirit of consensus-building did not leave room to bring these discussions to an agreeable result for the 2008-2010 policy debate.

- Five of the thirteen rejected goals concerned democratic and transparent governance. One of these concerned the modernization of the justice system, including the introduction of digital tools for transparency and judicial efficiency (goal 33 of the final Delphi proposal, see [23], with an elevated P.I. of 0.25 among subregions and sectors); two referred to the strengthening of democratic practices, including the usage of ICT in parliaments and the approval of freedom of information legislation (goals 36 and 60 of the final Delphi proposal, with an elevated P.I. of 0.24); and two goals concerned privacy issues and the protection of personal data (goals 35 and 61 of the final Delphi proposal, also with an elevated P.I. of 0.25). The Polarization Index shows clearly how controversial these issues are. However, it is surprising that in a Regional Action Plan for Information Society development, crucial topics associated with the strengthening of democratic institutions and practices, the transparency of the judicial system, and the protection of privacy rights, did not join the eighty-three priority issues.[18] It is a cause for concern that the LAC developing countries do not consider these issues in their current policy agenda.

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classify the phenomenon - leading to the well-known bloody result of the unforeseen surprise visit. Internet Governance and the strategic importance of software (especially open source) might be compared to such unknown and cognitively incomprehensible phenomena and –according to the government official— it should not be a surprise that the larger public would not recognize their importance.

[18] This seems especially odd when remembering that one of the first visions of an Information Society was formulated by George Orwell's *1984* scenario of an informational Big Brother State. In this vision, the State has understood how to exploit the new digital tools to control its citizens, so that omnipresent information control is "shaped and brought together by the barren world of monopoly industry and centralized government" [25].

Conclusions and lessons learned

In retrospect, it is possible to identify a number of issues that could have been done differently, and might have improved the effectiveness of the exercise. One of the mayor challenges was the formulation of concrete policy options to implement the identified thematic priority areas. The received online comments turned out not to be very useful to find the adequate wording of concrete policy actions, and more personal interviews or workshops during the face-to-face meetings in round three and five would have required more resources. It might have been a cost-effective intermediate solution to establish a multi-sector editorial board to assist and supervise the project team's work on synthesising online comments and the results of face-to-face interviews. If resources are available, this group could also serve as a focus group of regional opinion leaders. Sequential workshops could provide regular input and guidance throughout the exercise. A very positive externality of this approach is the creation of a group of regional agents of change. Future exercises should consider the creation of such board to accompany the process.

Several design options have been influenced by trade-offs between the "theoretically desirable" and what was thought to be "politically practicable". One such choice of design related to the right balance between the logic of a Policy Delphi to generate opposing views and the need for a political consensus to go ahead with the inter-governmental negotiation of a common LAC Action Plan. Given that the eLAC process has matured decisively and has entered its second generation already, it might be possible and beneficial for future exercises to deepen analysis and to focus with more detail on the disagreements of participants. In the same line of reasoning it would surely be of analytical interest to employ some kind of mechanism or software to register online users anonymously (such as with a username and password). This would allow tracking the evolution of disagreements over several rounds and the stability of the emerging consent or dissent. Contrary to all initial concerns, the LAC stakeholder community reacted very positively to the chance of participation, which seems to suggest that the addition of some minor user hurdles that enrich later analysis (such as registration or additional background questions) might not necessarily lower participant turn out.

Besides lessons learned on design issues, the exercise discussed here also led to several insights about the nature and potential of foresight exercises in developing countries. The eLAC Policy Priorities Delphi brought a considerable amount of transparency and accountability, by introducing public debate into the traditionally obscure and somewhat arbitrary nature of inter-governmental agreements. Decision-makers found themselves asked to justify publicly why they rejected and preferred certain thematic priorities - though they did not always respond to this request. In this sense, the use of foresight tools to enhance participative policy-making in inter-governmental processes is not a quick fix or magic bullet for the longstanding challenges of more democratic and transparent approaches to policy-making. It is a gradual innovation, which respects established customs and procedures of inter-governmental decision-making. While the overwhelming bulk of the results of the Policy Delphi results were accepted by the inter-governmental power structures, the open-ended Delphi community did not replace traditional decision-making mechanisms - nor could it remedy all of their defects. The eLAC Policy Delphi supported public decision making by providing a more open and

transparent mechanism, but governments remained free to follow what they see as their given mandates and to act as they see fit.

The Policy Delphi did highlight points of mismatch between governmental opinions and the result of the open-ended multi-stakeholder consultations. For example, the newly approved Regional Action Plan for the Information Society in Latin America and the Caribbean, eLAC2010, does not mention the issues (identified as crucial by the Delphi participants) related to the strengthening of democratic institutions and practices, the transparency and efficiency of the judicial system and the protection of privacy. This is a significant mismatch, whose wider implications deserve more consideration than we can give them now. This "democratic deficit" would have been much less visible if there had been no Policy Delphi exercise to urge the inclusion of these issues in the public policy agenda. The fact that the inter-governmental Ministerial Conference rejected five democracy-related policy actions that have been proposed by the multi-stakeholder group provides rather tangible evidence of political perspectives. Such tangible evidence would be less apparent were all arguments and decisions taking place in the opaque channels of inter-governmental negotiations – the common situation in such political decision-making. Thus, Policy Delphi exercises can help to augment transparency and accountability in public decision-making by simply reveal mismatches of opinion between political leaders and stakeholders. This is of special importance in developing countries, where institutional structures are frequently immature. In this sense, the exercise can serve as a demonstration of a cost-effective way to foster transparent and accountable public decision-making - and not only in developing countries.

Furthermore, the potential of participatory mechanisms was not just a theoretical matter, but has already shown practical results. The open-ended consultations during the five consecutive Delphi rounds strengthened a network of stakeholders and institutions that are involved in complementary tasks related to the areas of interest of the Regional Action Plan. As a result, the Annex of the eLAC2010 Action Plan lists eighty-eight regional agencies that are active in the various challenges outlined by the regional strategy. This Annex can be seen as a first "who-is-who" and "who-does-what" in the LAC ICT-for-development community. This incipient multi-agency networking is surely one of the most valuable results of the exercise. Such approaches are likely to be especially important in cross-cutting and multi-thematic areas as ICT-for-development. In this sense - as is so often the case in Delphi exercises and in Foresight more generally (cf [17]) - the process itself turned out to be just as important, or maybe even more important, for advancement on the ground, than the final product presented in the report.

One reason for the acceptance and success of the exercise lies in its positioning and presentation. The Policy Delphi was not seen to be questioning the legitimacy of representative democracy and established multilateralism. Rather, the process aimed at enriching its functionality, at supporting established inter-governmental practices in the framework of the United Nations system (in form of its Regional Commission UN-ECLAC). This is the basic ambition of participatory policy-making in a representative democracy, where the aim is more for incremental change than for a radical break with traditional notions of democracy. Nevertheless, it does recognize that there are techniques and technological opportunities to gradually modernize the relationship between State and

societal actors, and it has been shown that traditional policy makers are receptive to such innovations.

These changes involve a growing prominence of such notions as stakeholder and of shared responsibility. Civil society, private and academic sectors and governments are viewed as different parts of society that affect and are affected by the public policy making process, and can contribute their knowledge and take responsibility in a collective way through public foresight consultations. The process relies on the involvement of publicly legitimized technocrats, but recognizes that they cannot possibly possess all the information required to make sound policy choices in such a dynamic and generic topic as ICT-for-development. It therefore mobilizes the collective intelligence of an open-ended stakeholder group, while respecting the established legitimization of democratically elected governments, following the basic definition of a Policy Delphi as a "decision-analysis tool", and not a decision making tool [14].

Additionally, the eLAC Policy Priorities Delphi is not only about ICT-for-development, but it also exploits the ICTs` involved, drawing on the benefits of digital communication. This helps to overcome geographical barriers and provides a 24/7 availability of the online platform. Cheap channels for participation are essential in Latin America and the Caribbean, given the region's large size and scarce resources. For example, while a four and a half hours flight between Stockholm and Lisbon represents one of the largest barriers to a face-to-face meeting in Europe (3,000 km), a flight from Mexico City to Buenos Aires easily takes over eleven hours (7,500 km). Thus, every personal meeting with regional scope in Latin America and the Caribbean requires at least one day of travel each way for all participants to be able to come, whereas, in Europe, most participants in European Union or OECD meetings can go to a meeting and return the same day. Combined with the cost of travel and the much more limited resources in developing countries – not to mention environmental and personal burdens associated with long-distance travel - virtual channels prove to have great potential to facilitate participatory policy-making. There is bound to be much more use of such methods in coming years.

Last but not least, the most important lesson learned might be the contribution of international collaboration in this exercise. The elaboration of a Public Policy Action Plan in the fast-changing field of innovation and technological change is an ongoing challenge that can be confronted internationally. Technological progress is a moving target, but many developing countries do not have sufficient resources to maintain continuous foresight exercises. In this case, the support from Europe (in form of the funds from the European Commission's @LIS project and the conceptual collaboration between UN-ECLAC and the much more experienced team at the University of Manchester, UK), and the South-South deliberations within Latin America and the Caribbean, has shown that international cooperation provides an adequate platform and sufficient scale for developing countries to adjust their policy actions to permanent technological change. Foresight exercises are resource intensive and if developing countries want to prepare better for the future, international collaboration at the regional level seems like the most feasible level to start with an institutionalization of such exercises in the developing world.

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