Net working in the knowledge economy

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DIPLOMAT

Summary

It is widely considered that by implementing ICT (Information and Communication Technologies)-enhanced networks, economic performance will further increase. However, when it is established that work can be done more efficiently—shouldn't that also allow people to work less? The article addresses a new vision of developments concerning work relations, work organisation and the distribution of work and wealth in the Information Society. The analytical approach chosen derives from the concept of the "knowledge economy" distinguishing the Information Society from the Industrial Society in terms of new economic principles in operation. The contribution presented here draws on the results of the ACTS project DIPLOMAT ("The European Charter for Telework", AC222), and expands into the profile and activities of the "W.I.S.E. Forum", a follow-up organisation established to continuously exploit the project's results and to facilitate best practice implementation of new methods of flexible working.

Background to concepts and visions anticipated

The 21st century will see an intensification of the exchange of goods, services and labour on a global scale, comparable to capital and financial flows of today. Economic and political systems will need to create measures to counter the problems of unemployment and the lack of equal opportunities in labour markets. *A unified Europe must be open* not only for commodities, money and of the rich. It must also be open for the labour force of the future—which will be very different from the one which developed during the industrial era. People will be working in a wider Europe, using new technologies, and will be organised much more in "networked companies" and "virtual teams" than in traditional operations and locations. As a response to these challenges some hypotheses and concepts are being proposed here for further research and discussion. These are to be seen as suggestions for collaborative efforts required, not claiming to provide ready-made solutions. The intention is to facilitate the process of informed debate towards visionary decision making.

In debates concerning the most desireable impact of the Information Society, there is one vision employers and employees share: To reduce the efforts of labour invested. However, whilst employers count this impact in Euro, maybe in shares and increasing the value of a more productive company, employees count on less labour in terms of reducing their own personal investment. Employees and labour organisations defend jobs—often even if they are redundant or dangerous in various ways—in order to keep people working for the sake of a secured income. Nevertheless both interest groups would be happy if the new economy would allow the generation of wealth at lower levels of net delivery of work: "Net delivery"

may be understood twofold (a) as *networking* at distance, delivering results of work via networks such as the telecommunications infrastructures, internet and broadband access, and (b) as *net working*, saving gross work loads which usually do not directly contribute to productivity such as travelling to workplaces, looking up different sources and tools for work that could be easily accessed in new virtual work environments, by applying e.g. ubiquitous and other enabling technologies.

There is a potential for working fewer hours for the same rewards, at lower risks for health and life. New organisational and technological developments will be crucial, but *the positive potential will not be unleashed automatically*, it needs foresight, planning, and a lot of hard work to realise the full potential of *net-working* in the Information Society. Society must invent new social systems as it applies the new technologies [a variety of international examples in discussion may be found at http://www.2030.org; http://www.NoelHodson.com; cf. also Noel Hodson 1999; Messner/Vobruba 1998].

Employment policies: From workplace management to work processing

Historically the Information Society increasingly creates new forms of transitory work patterns. Long-term structural transformations affecting employment, work organisation, training, labour relations and life styles are being discussed with great enthusiasm across the world. These discussions are predominantly focused on changes affecting markets for information technologies and related economic structures [EITO 99]. Despite these changes the value of labour and work as a necessity and relevant component of economical and societal structures certainly will *not* vanish. But after having learned to use word processors the future challenge will be to manage ever changing *work processes* instead of organisational structures of work based on dependent positions, departments and hierarchies.

Thus the approach chosen here starts from identifying four major changes leading to the emergence of new *work-processes*, replacing gradually *work-places,* employment structures and work organisation prevalent in the Industrial Society:

- Location of work—multiple locations and teleworking increasingly produce what may be called “dissipative“ structures of workplaces: continuous mobility of job-hoppers may create statistical patterns of jobs distribution in space and time that seem steady for limited periods and areas or sectors, always followed by new “waves“ of such images.
- Time frames and labour law—flexibility and discontinuity, employment, self-employment are departing from full-time employment schemes dominated by 8-hours working days being regular and typical at least for male employees: Changes concerning both legal status and the time of work will occur more frequent and bring about the potential to reduce the gender bias (however, with no guarantee of general improvement of working conditions).
- Nature of work—the change from previously typical hands-on to on-line work, increased mobility of jobs and workers between sectors indicate new mechanisms of value

production: It is less dedication of time and much less application of physical efforts to particular jobs which create value and surplus of production and service delivery; Instead the value added increasingly depends on knowledge and information processing.

- Processes of work—expansion of socio-technical knowledge systems in networked organisations: Management tasks of the future certainly will remain to some extent with personnel recruitment and employment of labour in numerous workplaces as required thus far; however, new tasks will emerge from the need to manage the fluidity of work processes, employing ever changing numbers of individuals with different affiliations and not always committed 20 or 40-hrs weeks. As a matter of fact this task will not remain exclusively within the remit of what is traditionally called "management": Most likely it will becomes a new "management" task on the side of employees and labour organisations, whose position traditionally was to "sell" labour full time or part time usually to one employer.

Considering these ongoing changes, the most crucial challenge of technological and organisational innovation—aiming at the invention of new methods of work—will be acceptance and usability. This refers to those work places directly affected by new work environments as well as to the management in companies and the related institutions of the society as a whole [cf. Willke 1998].

Very likely the near future will reveal inherited patterns of work organisation and distribution of wealth, through a balanced development of labour and capital, as—to say the least –extremely vulnerable. Some regions, branches, professions or clever individuals may be better off than others, but even for those no guarantee exists for maintaining favoured positions.

Development of the knowledge economy and visions involved

The transition of social and economic structures towards the Information Society of the 21st century includes the emergence of the knowledge economy [DTI 1998], accompanied by major changes in markets [Kaspar/Ruebig 1999] as well as in public services' administration [Kubicek 1999].

As an hypothesis for further research and empirical analysis three crucial components of these paradigm shifts may be identified and presented here to inspire critical debate:

1) Information, in particular abstract data, is not the same as knowledge. However, improvement or the new production of knowledge requires information and data of many kinds just as the production of industrial commodities requires natural resources. However, information is different from natural resources such as energy and various materials as used in industrial production and services: Information and knowledge (refined data and other information) are not being destroyed when utilised and incorporated in new products. On the contrary, information and know-how usually expand and grow when being applied: Their stock is increasing instead of decreasing as are the main resources of industrial production.

2) The emergence of virtual companies—*quantitatively* still of minor economic or labour market impact—is heralding the transition from companies being the organisational backbone of the Industrial Society to new network systems of the Information Society [Winand 1998]. Information Society will require many other and different organisations linked together by networks including traditional market and state institutions as well as communities and initiatives comprising the so-called *Third Sector* (NGOs/NPOs etc.).
3) The global economy of the future requires new concepts of analysis that may derive from proposals discussed in economic literature since the 1980's under the title "Information" as fourth sector of the economy, separated from and added to Fourastie's (1954) description of the economy of the industrial era in three sectors such as Agriculture, Industry, Services [cf. Beniger 1986; Dostal 1995; EITO 1998ff.].

Against this background there is a demand on visions because societal factors with powerful control over individuals' and organisations' behaviour are undergoing fundamental changes: Norms and the many-fold regulations of the Industrial Society are loosing grip and impact, whereas at the same time new mechanisms are in the making, yet not being able to immediately replace the former rules of guidance. Usability and acceptance of enabling technologies, based on active and knowledgeable participation of individuals, become indispensable prerequisites of the development and implementation of new work environments.

Individual employees and employers as well as corporate organisations and state institutions are forced to generate knowledge concerning new methods of work and appropriate design of organisations. Acceptance and usability of new methods of work will develop concomitantly with their environment in the globalised network economy. The emergence of the knowledge based Information Society inevitably and remarkably changes individual working and living conditions, organisational structures and concepts of societal formation. However, there are also traditional components producing and re-working the social fabric, which become more relevant, even if they take on new shapes or become applied in different patterns than before. Such components are *communication* and *trust*, the core elements of any collaborative behaviour between individuals as well as between organisations and societal institutions. But how can sustaining bridges of trust be established in sets of temporary project collaborations between individuals from several organisations that work in virtual contexts, and who increasingly use technologies for communication instead of face-to-face interaction?

Applications of ICTs and new business processes, virtual team technologies, multi-media, wireless computing and other features of intelligent ubiquitous work environments will depend not only on technological reliability but also on equivalent social innovations: The absence of interpersonal factors in virtual teams can lead to loss or abuse of trust, hence other bases of trust for this new and important work environments should be found and invented.

Any collaboration between individuals, in and between organisations, is dependent on

social and cultural factors, including economic and ethical values, linkages, and symbolic images or profiles. Cooperation requires communication, means, tools and norms of context including certain levels of trust and justice, to become operable. These do not eliminate conflict or competition. Conflict management strategies and the provision of alternative patterns of behaviour compared to competition, sometimes may amalgamate different strategies leading to "strategic alliances" in a *co-operative* way.

Concluding from this analysis and approaches chosen, the following four core visions of new developments in the emergent Information Society are briefly indicated [for more details and references cf. Hochgerner 1999].

Vision 1: Emergence of the economic foundations of the Information Society

Further developments will make changes obvious which nowadays still seem to be just indicative. By drawing conclusions referring to the three hypothesises mentioned above these developments will include:

1) Economic measurement and accounting will need at least two major extensions. The first concerns methods to measure social and economic welfare in principle: Early attempts and results have been published almost 30 years ago [Nordhaus/Tobin 1972]. Introduction of proposals on how to exactly measure usage of natural resources and environment [cf. Zolotas 1981] lead to the development of the ISEW/Index of Sustainable Economic Welfare [Daly/Cobb 1989]. This new index has been applied meanwhile to the economies of a number of countries, applications which allow the conclusion that the ISEW may challenge the traditional measurement of wealth and development by GDP/Gross Domestic Product. The second extension required is to include value added by information processing and knowledge production appropriately in economic statistics. This would help in preparing the ground to adjust income distribution and social security contributions accordingly.
2) Strategic alliances and new developments regarding the organisational structures of companies ideally end up at regionally or globally connected networks of operations: "The main shift can be characterised as the shift from vertical bureaucracies to the horizontal corporation. The horizontal corporation seems to be characterised by seven main trends:
   - organisation around process, not tasks;
   - a flat hierarchy;
   - team management;
   - measuring performance by customer satisfaction;
   - rewards based on team performance;
   - maximisation of contacts with suppliers and customers;
   - information, training, and retraining of employees at all levels.

   This transformation of the corporate model follows the realisation of the limits of the "lean production" model attempted in the 1980s" [Castells 1996, 164].
3) In general the transitory process from the Industrial to the Information Society may be described by the identification and measurement of the following trends:

- Growth of the service sectors;
- Increasing numbers of information processing occupations within the existing industry sectors of commodity production and services;
- Expansion of new professional sectors completely dedicated to information processing; and knowledge production
- "Informatisation" of all sectors and areas of living just as industry and mechanisation took command earlier in the industrial age;

Vision 2: New employment policies must not neglect workplace management, but go beyond and focus additionally on "work processing"

Even if numbers of "workplaces" increase continuously, unemployment and related problems will remain in future. Thus counting work-places will not provide sufficient information; these statistics need supplementary data and information concerning efficiency and results of the management of complex work processes. Labour market and employment policies of the future therefore need to address primarily the following aims:

1) Promote use of technologies to reduce risks and efforts in terms of physical strain and negative stress (work loads);
2) Contribute to the four pillars of employment policies: Entrepreneurship, Employability, Adaptability, Equal Opportunities;
3) Adapt labour, legal, tax frameworks in order to support explicit European, socially and economically viable policies for efficient management of new work processes;
4) Allow de-linking of employment and income based on operational transfer mechanisms;
5) Facilitate self organisation and self reliance in corporations and other organisations;
6) Reduce unemployment and the impact of unemployment situations on individuals and the social security systems;

Vision 3: De-materialisation of the economy

New methods of work and net-working (in all meanings) are crucial to invent what will make one of the major differences between the 20th and the 21st century:

1) In the development of the 20th century, work and economy relationships were best characterised by the term rationalisation of labour input; in all sectors of the economy (seemingly most of all in agriculture) a tremendous increase of productivity took place.
2) The economic development of the 21st century will not cease this trend; there will be further increases in work-productivity. However, in addition, comparable increase of resource-productivity will be necessary and may take place to provide for sustainability.
3) This implies the exploitation of the potential in better utilisation of all materials and natural resources in order to allow the economy really to develop globally, enabling industrially less developed nations to also participate in growing wealth of the world, and still to prevent ecological disasters [cf. Jaenicke et al. 1995; Schmidt-Bleek 1998].

Vision 4: Extension and implementation of networks create new potentials of self regulation

Networks should be taken into consideration not only under the perspective of the internet, intranets and other technologically based networks. More generally, networks of socio-technical composition will allow better guidance of social and economic developments than state bureaucracies and market forces alone are able to provide:

1) Networks are the best organisational formats to implement and make use of schemes of self-regulation and autonomous improvement of performance in business [Crandall/Wallace 1998], science and other areas of human activities.
2) Networks increasingly facilitate decision making processes in organisations of business and administration; the more information and knowledge is the main substance of production, trade and decision making, the more efficient becomes networking in direct comparison to order and price.
3) Networks link areas of economic, social and cultural activities that had been separated by tradition in very different institutions and organisations, such as work, education and training, entertainment, tourism etc.
4) In general: Networks support co-operation in many ways. Even on the macro-level of state and international developments in a globalised world networks may supplement the traditional state institutions and the market forces of supply and demand. Communication in networks on different levels from local communities up to institutions on global levels (e.g. the WTO) may lead to commonly fruitful decisions that could not be achieved if these capacities were not applied [cf. Petrella/de la Saussay 1995].

Suggested research topics for new projects in the IST programme

Analysis required first of all should address issues that promote or hamper understanding, acceptance and usage of new methods of work. There are well known cultural barriers to overcome and use ICT successfully. Organisations and teams that tried to realise the added value of new ways of working, but had not paid attention to cultural factors repeatedly report that they had fallen into the equation: old organisational culture + new technology = expensive old organisation [Simons 1998]. Recently an Austrian Delphi-study on Society and Culture identified specific core research areas such as work, life-long learning, life-styles and social structures: According to the results, increasing polarity concerning work will occur, with subsequent impact e.g. on the quality of life, social security, health. Individuals will need to take more risks, there will be less social cohesion and solidarity, and a "comeback" of basic needs, for work and education in particular [Haerpfer 1999].

On the one hand it seems that not too much can be said or predicted which could claim to be really new; on the other hand almost everybody talks about new forms of work organisation, some authors even discuss "the end of work". Obviously it is a matter of approaches and perspectives to arrive at more or less realistic, reliable, and testable conclusions.

Employment and work organisation certainly did change a lot during many waves of economic, technological and political developments since industrialisation took command. But employees as well as employers and self employed still refer to the "world of work" as a set of structures providing stability and continuity of social security, income, and other expectations concerning growth and prosperity.

The distribution of work and of wealth are at stake and dependent on communication and trust besides the development of new technological enablers. Therefore approaches to research have to take these factors into account. The dependence of co-operation on communication has been proved scientifically the best in theoretical studies, game theory tests and computer simulations concerning the so called prisoner's dilemma [Axelrod 1984; Leinfellner 1988]. A new analysis [Spiess 1996] differentiates co-operative behaviour of three kinds: "*Strategic co-operation*", based on *shared objectives and foreseeable results;* this kind of co-operation is best suitable to technological support because objectives and inputs to results are known and may be modelled in a socio-technical system. "*Emphatic co-operation"* builds on *shared emotions and unification*; very specific inter-personal common understanding is necessary; this puts narrow limits to the extent to which this kind of co-operation may be supported by technology (or to be incorporated in a socio-technical system). The same applies to the third category of *"fictitious co-operation*", in which people may act "*as-if*" there was a reason or objective to work together, neglecting the fact that there is only *shared fiction and purely formal co-operation*.

Strategic co-operation is of fundamental importance in networks. It can be divided further into two types according to whether or not the co-operating parties *trust* each other. Trust can generally be assumed when entities belonging to the same organisation need to co-operate; typical scenarios are co-operative work and workflow systems. On the other hand, co-operation among parties that do not necessarily trust each other, is one of the major challenges to be solved when the emerging information infrastructure is to become fully operational. Typical scenarios and applications in electronic commerce are business negotiations, collective decision making (e.g. voting), contract signing, and payments. One of the major future applications is the development of new paradigms for access control and retrieval of information distributed in several independent databases without a common access control policy.

"Strategic co-operation" as defined follows rational criteria. It may incorporate and utilise advanced information and communication technologies, extending and transforming inherited forms of co-operation to what is called quite often in recent literature "tele-cooperation"; see Fig. 1 [Mitchell 1996; Reichwald/Moeslein et al. 1998].

Tele-co-operation (seen as a combination of tele-work, tele-management, tele-services) fundamentally changes work processes in business and administration. Requirements and effects of a successful implementation of such new work environments are however insufficiently researched today. This is also true concerning the concept of virtual organisations, that has recently received much attention. Virtual arrangements consist of

networks of organisational units, linked by advanced information technology in order to co-ordinate their activities, combining their skills and resources to achieve common goals. Some findings indicate that, whilst there is recognisable change in the work at the level of content and technical resources, fundamental change in the inter-actional competencies involved is seldom (http://www.virtual-organization.net). The use of distributed computer systems demands more in-depth understanding of the interactions concerning collaborative work, decision-making, quality control and customer services. More organisational learning is necessary for bringing skills and expertise together as and when required, and to promote the development of co-operation between workers and managers. Existing and evolving tele-cooperation pilots should be evaluated systematically in relation to success factors as well as the barriers to these innovative work forms.

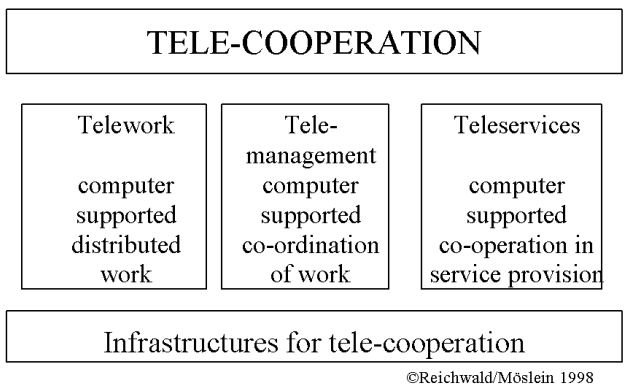

Figure 1: *The three components of tele-cooperation*

Further, the development of the network economy will create enormously increased demand concerning technologies and improved management of communication, including its social and cultural incorporation. This also applies to education and training (knowledge acquisition), and as a result, applies to new methods of communication in business and private life, affecting individuals and organisations of all kinds and size.

There is demand for communication via face-to-face interaction as well as technically mediated communication (internet and intranet/groupware, mobile communication and tracking systems, immersive and ubiquitous technologies etc.). The technologies currently exist or are in fast-track development. However, implementation, usage and exploitation of positive potentials are lagging behind, again confirming the old theory of the "cultural lag" [Ogburn 1922].

The most valuable assets of any organisation are knowledge, communication and teamwork abilities, especially in relation to co-ordinated work-flow. The decreasing share of unlimited work contracts corresponds to higher numbers of mobile "job hoppers", is growing faster than recent figures of known teleworkers in Europe, it is put at about six to seven

million [Johnston 1999, 4]. The more companies are interlinked in business relationships along a value chain (with a tendency to transcend into a "value network"), the more the need increases for efficient communication. Ever more companies will be interacting on sectoral and cross-sectoral networking business platforms. The ongoing changes driven by ICT as well as the network economy enfold several far reaching implications for new methods of work.

Core issues of research concerning the most relevant trends during the coming five years may be indicated as follows. These should be addressed by in-depth research and analysis in projects related to the IST programme:

- *Acceptability, usability of enabling technologies in private life and in business:* Behaviour in work, leisure and communication, education and training; ergonomic aspects of software and virtual environments.
- *Group cohesion, teamwork:* Organisational cultures; obstacles to co-operative work any time/any place; the learning organisation; virtual organisation; networked economy.
- *Emergence of new services:* Employment issues and labour relations; development of institutions, legislation and social partnership; socio-economic structures and distribution of innovativeness.
- *The structure of the global network economy:* The global economy will be organised according to value networks rather than by companies positioned in fixed value chains or production lines. Economic relations will become trans-national in principle and the nation states' grip on dealing with social, economic and technology policies declines drastically. The importance of internet and intranets reflects the migration of a significant portion of economic and social activity from the physical world to digital networks.
- *New organisational design:* The highly competitive environment of the network economy demands rapid "organisation prototyping". This implies the ability to shift the organisational form to accommodate and respond to new external factors. In this environment, the ability to quickly embed knowledge and learning into these processes is of central importance. Organisational restructuring will demand self-regulating and self-organising systems to be able to cope with the pace of change [Tapscott/Lowy 1999].
- *Knowledge management and the learning organisation:* Effective generation, management and communication of knowledge are of crucial importance. The more technological systems evolve, the faster the need grows for effective handling of these systems. Skills, organisation design, quick adaptation to new technologies must be developed together.
- *Efficient knowledge management does not depend on investments in newest ICT alone*: Ways in which knowledge workers communicate and operate still require the social processes of collaborating and building on each others ideas. Even in a high tech work environment the management of knowledge depends on the culture of an organisation. New technologies or management processes cannot be imposed successfully on a culture that is not prepared to embrace it.

- *Skilled and flexible employees as competitive advantage*: Education and training will facilitate the societal transition to the demands of a network economy. Education is crucial in providing an adequate number of skilled workers as well as in enabling people to capture upcoming opportunities related to their working life. Education shall create "knowledge workers" adding value through interpretation, analysis and presentation of information.
- *Teleworking and tele-cooperation anytime from anywhere:* Wireless communication will speed up the de-localisation of working life. Mobility and portability of telecommunication devices are enablers of this development. Remote workers, teleworkers and/or telecommuters will be linked with their employers by network technologies. Workers become more responsible for creating value on their own. A growing number of employees will "rent" competency to businesses, working as free lancers or (fictitious) self-employed persons. Working on projects in (virtual) teams will become a widespread way of collaborating with employers [EC 1998].
- *Autonomy versus pressure resulting from more flexible working conditions*: Actual polls [OeAW/WIFO 1998] show that people expect more autonomy in their work by ICT, but also higher pressure. Permanent availability dissolves the traditional boundaries between work and leisure. Times of intensive strain alternate with times of voluntary or involuntary leisure (e.g. sabbaticals, continuing education). Especially for women it may be even more difficult to manage job, further training, household, and education of children.
- *Information rich and working poor:* Threatened by major gaps between rich and poor, secured good and insecure low standards of living and working conditions on international levels, the prosperity of the Information Society depends on innovative ways to create new jobs, balanced working conditions world-wide, and successful measures to achieve a socially and economically sufficient inclusion of the global labour force in the money economy [Eichmann 1999].

Potentials of the W.I.S.E. Forum

"The W.I.SE. Forum—An International Forum on Work, Information Society and Employment" offers its services to facilitate the formation of a socially balanced, economically viable, and ecologically sustainable Information Society. The core competence of the W.I.S.E. Forum is in employment policies, work organisation, and research into the European and international dimensions of labour in the new knowledge economy of the global Information Society. The W.I.S.E. Forum evolved from the RTD project "DIPLOMAT, The European Charter for Telework", supported by the ACTS (Advanced Communications Technologies and Services) programme. W.I.S.E. has been established in 1998. It is an independent private, non-profit making international association. The President of the W.I.S.E. Forum is Mr. Ferdinand LACINA, former Cabinet Minister for Financial Affairs (1986-1993), subsequently board member and senior consultant in a major bank, and personal advisor on European employment issues to the Federal Chancellor of Austria. The W.I.S.E. Forum is open to everybody interested in the

issues of new ways of work organisation, extending by democratic participation the Consensus Building processes on these matters.

Objectives are

- to provide an informed, neutral environment for people concerned with employment, including national, regional and local governments, trade unions, employers, and social partners associations, to debate and develop recommendations concerning work and employment aspects of the Information Society;
- to develop policy advice for government, employers and other market actors on the future socio-economic developments in the Information Society;
- to act independently in all aspects of information gathering, research, conclusions and advice;
- to be international regarding invitations for participation in research, reflecting the importance of global and trans-border aspects of telework and tele-business;
- to receive and respond to feedback and information from major organisations, political and industrial leaders and informed individuals from around the world.

The W.I.S.E. Forum is able to draw on three main achievements of DIPLOMAT:

- 600+ signatories have supported the European Charter for Telework including Cabinet Ministers, Members of the European Parliament and of national and regional Parliaments, Members of Provincial Governments, Trade Union Leaders, Notable Academics, Directors of Environmental Agencies, Directors of Business Management Colleges, Authors and Futurists, CEOs and managers of major manufacturing companies, Directors and managers of tele-communications and IT companies, representatives from the fields of medicine, education, training, small business associations and owners of small businesses, scientists, telework experts and information society consultants. Many of these have agreed to participate in *Consensus Groups* to develop and propose *Guidelines* for the implementation of new working procedures. This constituency of influential Signatories from the DIPLOMAT project is invited by the W.I.S.E. Forum to continue consensus building and guidance on Europe's progress into the Information Society.
- Guidelines Reports, a short version of the guidelines, and a summary on the degree of these guidelines' acceptance and debated issues in the seven Consensus Groups. Some 500 people participated trans-nationally in these thematic groups looking at key issues in the development and deployment of telework in Europe. Quite often the pros and cons of regulation is discussed. In general, wide ranging agreements can be found regarding the need for labour market continuity such that existing rules for traditional work contracts can be adjusted to telework.
- The existing model groups for consensus building across nations, sectors and professional background allow the continuation of the discussion and an improvement of the guidelines, drawing on the expertise and knowledge of the signatories, Consensus

Group members, the DIPLOMAT Community (Partners, Regional Contacts and Experts). For this purpose and in addition to this existing network, the WI.S.E. Forum includes new "Strategic Partners" (other EC projects, relevant scientific institutes, representatives of national and regional governments, the EC, and social partners).

The W.I.S.E. Forum contributes to informed debate by research, consultancy services, publications and conferences, mediating between representatives of all EU Member States and other regions, from Governments and Public Administrations, Trade Unions, Employer's organisations, Politicians and Administrators in European institutions. All these categories are represented among the Signatories to the European Charter for Telework. Details are published in the "W.I.S.E. Report", Vol. 1 [Hochgerner/Lacina 1998].

The provision of an informed, neutral platform for the discussion and resolution of Information Society issues between employers, employees, unions, national governments, European and trans-national institutions, and NGOs is based on research concerning sustainable Policies for the Information Society and consultancy services:

Open briefings: W.I.S.E. Experts present on emerging leading-edge employment and organisational development strategies. Target participants are primarily: Senior Management; HRM; Systems Managers.

In House Briefings: Focused on senior executives and relevant decision makers. One or two days in house tailored exploration of current opportunities and issues within companies /organisations related to the development and adoption of strategies required in new organisational structures and work environments.

Longer Term Transition Partnering: W.I.S.E. experts partner at a senior level in the client organisation from the initial development of a virtual strategy through to implementation. W.I.S.E. assigns both a core team of experts to provide continuity throughout the development of a new organisational strategy as well as providing additional experts according to emerging needs. W.I.S.E. Experts work using face-to-face, telephone, video and on-line communication systems to support secure constant updating on emerging opportunities.

W.I.S.E. exists as an international network of leading-edge experts in the field of new methods of work, employment and organisational development in the globalised information economy.

Its mission is to support transition procedures to the new knowledge based economy through working with top decision makers in both the corporate and public sector. The network is co-ordinated via its General Secretariat in Vienna. The core executive board comprises Mr. Ferdinand Lacina, President, the Secretary General and six specialised Programme Directors located in Austria, France, Ireland, Italy, Sweden, and the UK. W.I.S.E. has substantial experience of virtual collaboration on development strategies across the European Union, in the Accession States in CEEC and Southern Europe, and in the USA and Japan.

Services are delivered by the W.I.S.E. Expert Team. This team is organised and employed under the supervision of the Executive Board, in particular by one of the Programme Directors relevant. W.I.S.E. Experts are world class consultants with wide experience in the subjects of teleworking, electronic commerce, contracts of employment and governance. W.I.S.E. Experts are drawn from commerce & industry, labour organisations, academia, research institutes, and government departments. W.I.S.E. Experts bring a powerful blend of practical and scientific expertise from all these fields to their research and consultancy work.

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