

**LIFELONG LEARNING IN THE ELECTRICITY
SECTOR**

A REPORT FOR EMCEF – EPSU – EURELECTRIC

CONTENTS

Summary executive

part II – Argumentation : text written by the social partners on the reasons of the project of the survey-study

Part III – Presentation of stakes and problematics of "lifelong learning" in relation with the transformation of the European electricity sector ____ 1

1. Lifelong education and training : the European context _____ 2

2. Evaluation of the implementation of the communautary guidelines for employment _____ 5

2.1. Towards global and consistent strategies _____ 5

2.2. Investment in human capital _____ 8

2.3. Improving the training of underprivileged groups and the balance between initial and adult training. _____ 8

2.4. Pilot and operational developments supporting life-long learning _____ 9

2.5. Encouraging the idea of partnership _____ 10

2.6. Initial and continuing training _____ 11

2.7. Knowledge of the information society _____ 12

2.8. Link between working time and training _____ 12

2.9. Lessons from the commission _____ 13

3. Stakes of the transformation of the European electricity sector on the skills and abilities of the human resources _____ 14

3.1. The new deal in the electricity sector: from electricity production to the emergence of a new global offer _____ 14

3.2. Liberalisation of the energy markets, a new deal contributing to the emergence of a multi-service offering... _____	14
3.3. Recomposition of the offering through multi-service, multi-energy international development strategies _____	16
3.4. The widening of the offering and going beyond the paradigm of technical skills _____	18
3.5. Challenges for the period, for companies in the electricity sector, the integration of new skills combined with the quantitative and qualitative impact on jobs of the implementation of the Kyoto protocol _____	19
PART IV – Presentation and analysis of the data collected by means of answers the questionnaire _____	20
1. Information about the sample of companies having answered the questionnaire _____	21
2. Analysis and diagnosis of needs of skills. _____	21
3. The hirings _____	29
4. Lifelong learning _____	31
5. Social welfare during restructuring _____	37
Part V – Conclusions _____	39
1. Conclusions _____	40
1.1. A change in the context of competition and the management of employment paths _____	40
1.2. Older salaried populations are not very involved in mobility programmes	41
1.3. The third conclusion which emerges from very characterised human resources management choices _____	41
1.4. A discriminatory situation for women in the European electricity sector ____	42
1.5. Learning from good practices in the European Commission memorandum on “lifelong education and training” _____	43

Bibliography	45
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Annexes	48
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Summary executive

The targets of this study-survey on « Lifelong learning in the sector of the Electricity » are :

- ↳ to analyse the necessities in skills of the employees in relation with the fast and deep changes of the european sector of the output, the distribution and the transport of the electricity, and the devices of lifelong learning the best appropriate to take up on the challenge of the satisfaction of these necessities.
- ↳ to elaborate and to formulate conclusions and recommendations to face the challenge of the economic, technological and social changes of this sector ; which would be useful to talks between the european social partners of this sector about the stake « Lifelong Learning ».

On the methodological plan, to this aim, we leaned at the same moment on the answers to a questionnaire elaborated by the social partners as well as on works already realized by various actors : states and national and international public bodies, companies, trade-unions, research centers, experts.

We proceeded at first to the analysis of stakes and problematics of the Lifelong learning through the analysis of the strategy and the experiences of the various actors stakeholders, at the same moment to the interprofessionnal level and to the european sectoral level of the electricity.

Then we proceeded to the analysis and to the diagnosis of data collected from answers to the questionnaire.

Finally, we have from the whole of these elements, proposed and formulated conclusions and recommendations quite particularly concerning the young, older, feminine employees and the subcontractors.

The various phases of our works were followed by a representative group of the committee european social dialogue of the electricity, and we thank the representatives of the three organizations, Eurelectric, Emcef and Epsu for their availability and their advices.

Syndex Office

**Presentation of stakes and problematics of
"lifelong learning"
in relation with the transformation of the
European electricity sector**

1. Lifelong education and training : the European context

The European Council of Feira of June 2000 invited the member states, the Council and the Commission “to define consistent strategies and practical measures to make life-long education and training accessible to all”, and this in all spheres of the respective competencies. This mandate confirms the dominant role played by life-long education and training in the strategy established in Lisbon designed to make the Europe of the knowledge economy the most competitive and dynamic in the world.

In November 2000, the European Commission presented a memorandum on life-long education and training. This served as a basis for consultation on a European scale, organised as closely to citizens as possible, in accordance with the aim of the Commission to reform European governance. The member states, the countries of the EEA and candidate countries, have started wide consultation associating all the players concerned and interested national organisations. The candidate countries were fully associated with this and contributed significantly to the consultation process.

At the European level, the Commission consulted the social partners, the European parliament, the Social and Economic Council and the Committee of the Regions. It also succeeded in organising the consultation of the European civil society, the highpoint being the conference organised on 10 September 2001 in Brussels. The Commission also consulted various international organisations, and in particular the Council of Europe, the OECD and UNESCO.

At the end of the memorandum, the Commission put forward six messages, showing that a consistent strategy for life-long education and learning in Europe should:

- ↳ guarantee universal and permanent access to training;
- ↳ increase investment in human resources;
- ↳ develop efficient training and learning methods;
- ↳ improve the way in which non-formal learning is understood and appreciated;
- ↳ ensure good quality in advice;
- ↳ ensure local education and training opportunities through information and communication technologies.

Moreover, responses to the consultation on the memorandum on life-long education and training underlines the need for a wide definition of life-long education and training which is not limited to a purely economic vision or to life-long education and training for adults. Life-long education and training should stress learning from pre-school education to post-retirement, be it formal, non-formal or informal. The consultation also stressed objectives relating to life-long education and training including active citizenship, personal fulfilment and social inclusion, and aspects concerning employment. The principles life-long education and training are based on and that their effective implementation depend on concern the central role of the learner, the importance of equal opportunities and the appropriateness of the possibilities of education and training.

The order of the 6 key-messages of the memorandum reflects 3 big categories of actions required for a successful implementation of the lifelong learning :

- ↳ To create prerequisites that are indispensable to the lifelong learning : new traditional basic skill for all, questions of access to this skill, an investment increased in human resources ;
- ↳ To improve quality and earnings of processes and results of learning : innovation in the education and learning, and increasing in value of the training.
- ↳ To create friendly environments of learning and services of support for lifelong education and learning : a new conception of the vocational guidance, to move closer the education and learning to homes.

At the European Council meeting in Feira and in the context of the European Employment Strategy, the member states decided to develop and implement consistent and global strategies for life-long education and learning. The main components of these strategies stress the gradual integration of formal educational environment with a view to enabling all to access, on a continuous basis, quality education and training offers.

It appears clearly that traditional systems need modifying so as to be more open and flexible, enabling learners to follow the learning path of their choice, in line with their needs and centres of interest, and thus benefit from the opportunities offered to all throughout their lives.

The implementation of these strategies raises the issue of the clear identification of roles between the public authorities and the social partners.

In this context, the Commission has invited the social partners to negotiate and implement agreement at all appropriate levels so as to modernise organisation in the workplace with a view to increasing investments in life-long education and training and give over more time to education and training. For example, they should work in field of the recognition of all learning activities, including non-formal and informal learning, and integrate it into all aspects of policy and practice relating to human resources in the company.

The social partners, at all levels, are invited to accept that each worker should have a skills development plan, based on an evaluation of their own skills, and in line with the overall skills development plans within the company. These plans should fully take into account the needs and circumstances specific to small business and should provide informed advice on the ways of assessing needs in terms of skills and learning. The social partners should also contribute to greater awareness among citizens of the importance of education and encourage employees and managers to become mediators or tutors for others.

2. Evaluation of the implementation of the communitary guidelines for employment

2.1. Towards global and consistent strategies

One of the main conclusions of last year's joint report on employment was the lack of global and consistent strategies in terms of lifelong education and training, as can be seen in the recommendations made last year to almost a third of the member states. Since then, significant progress has been made in the formulation and implementation of these strategies and initiatives – which are compatible with guidelines and consistent with the objectives of the Memorandum on lifelong education and training.

The evaluation of the progress made by the member states must be put in the national context and take into account the different starting points concerning the formulation and implementation of lifelong learning policies.

The main constitutive elements for national lifelong education and training strategies appear to be in place in a growing number of member states.

The table below gives a fairly detailed description of the level of development and implementation of full and consistent strategies in terms of lifelong education and training by the member states, evaluating several criteria in their policies and their actions in this field.

In column 1, the first group of criteria concerns the *exhaustiveness* of the strategies and measures taken by member states to promote lifelong education and training, defining the main sectors or systems that they must cover. That all the questions concerning each criteria is covered remains to be seen – e.g. “academic education and learning for adults” covers all education from primary up to university level, and full-time or continuing vocational training.

Moreover, three criteria in particular bring to light non-academic training (including on-the-job), giving a priority to underprivileged groups and problems of investment and financing, on

account of their particular appropriateness and importance in the context of the employment strategy and the determination to make Europe a learning for all society.

The other criteria in column 1 describe the key elements which insure the consistency of the policies and actions of the member states.

With this analysis, overall evaluations mean that it is possible to group member states together into three categories:

The first is that of countries which gain the best results, *Denmark, the Netherlands, Finland, Sweden and the United Kingdom*, which have already established the main elements which go to make up their national life-long learning strategies, whereas *France and Germany* are still developing and refining some of their aspects.

Workplace learning in all of its various forms (from on-the-job training to skills development plans through recognition of non-academic learning) is an important force. Several member states are redefining their priorities towards questions of quality and efficiency. The member states must continue their efforts, in particular concerning overall investment and the means needed to reach adults who are less inclined to learn, including the use of innovative financing systems and the use of non-academic learning.

Table 1: Situation of positions of member states on the development of strategies encouraging life-long education and training

CHARACTERISTICS	BE	DK	DE	EL	ES	FR	IRL	IT	LUX	NL	AU	PT	FIN	SV
EXHAUSTIVITY OF STRATEGIES														
Obligatory teaching	P	A	A	P	P	A	P	A	P	A	P	P	A	A
Academic Teaching/training of adults	P	A	P	P	P	P	A	P	P	A	P	P	A	A
Pre-learning acknowledged, learning in workplace Others not academ learning	P	A	A	P	P	A	P	P	I	P	P	P	A	A
Action on the disadvantaged groups	P	P	P	A	I	P	P	I	P	P	P	P	A	A
Global plans of investment and financing	P	A	P	I	P	P	P	P	P	A	P	P	P	A
CONSISTENCY OF STRATEGIES														
Development of the system	P	A	P	P	P	A	P	I	P	A	P	P	A	A
Needs, skills, targets, implementation and following of the policies														
Work in partnership	P	P	A	I	P	P	A	P	I	P	A	P	P	A
Social partners, public authorities, suppliers of educational services, c societies														
Cross appearance	P	A	P	P	P	A	P	P	P	P	I	I	A	P
Career and advice services, mobility :teaching training														

Notes

A Satisfactory : means that the strategy of state member as its actions about the criterions in question have received a satisfying priority.

P Partially : means that the strategy of state member as its actions about the criterions in question have received a certain attention or that the state member has attached a sati either in its strategy or in its actions.

I Insufficient : means that the criterion in question don't figure neither in the strategy nor in the actions of the state member, or that the state member has attached a certain atten in its strategy or in its actions.

« Belgium and Ireland », in the second group, are currently developing their strategies (Ireland is about to pass into the first category) but both of them need to make new efforts, particularly in terms of consistency: Belgium must clarify the responsibilities of the different players in this context and improve the overall work in partnership, including with the civil society; Ireland must translate the conclusions of the various policy forums into consistent implementations, while ensuring that the traditional gap between teaching and training does not widen.

In the last group, « Greece, Spain, Italy, Luxembourg, and Portugal » are moving forward in various ways and at various levels, without, however, having defined consistent and overall approaches for life-long education and training. Investments and financing, access for underprivileged adults, improved use of the potential of non academic learning, work in partnership and coherence between the various learning paths are all areas which demand increased attention. Spain is characterised by the traditional gap between teaching and training. Portugal has made the biggest progress in terms of political planning which should ensure that the numerous elements are monitored correctly.

2.2. Investment in human capital

Human resources development has become a priority for member states looking to open up access to teaching and training. Total public spending given over to education as a percentage of GDP, which is a good indicator of general investment in human capital, represents a little more 5 % on average of the GDP of the European Union in 1997/98. During the period 1995 – 1998, this percentage remained more or less stable in the member states, but it varies significantly from one member state to another: Denmark and Sweden reached 8 % and Greece, Spain and Luxembourg around 4 % of GDP in 1998. Encouraging investment in human capital is also essential to guarantee a gentle transition towards a knowledge economy and society.

2.3. Improving the training of underprivileged groups and the balance between initial and adult training.

Strategies in favour of life-long learning take into account the needs of underprivileged groups such as women joining, or re-joining the labour market, people with learning difficulties or with low levels of skills/qualifications, ethnic minorities and immigrant workers. On the whole, the political measures taken are focused mainly on adult education, whether it is an issue of

responding to needs in basic skills or encouraging access to complementary skills. Initial training is less suitably treated, despite the important role that it plays in giving individuals the bases required to join the labour market in good conditions and to access new learning possibilities more easily.

2.4. Pilot and operational developments supporting life-long learning

Some member states have defined structures – or are in the process of defining them – which will help support life-long learning, such as the Learning and Skills Councils in the UK. Others lead to pilot projects, such as literacy in the workplace (Ireland), training for underprivileged groups, in particular for older workers (Finland, Belgium and Greece), the rotation and permutation of jobs (Belgium and Finland), distance learning (Greece), learning regions (Finland, Germany).

The need to develop mechanisms for recognising pre-learning and learning in the workplace is recognised by several countries, in particular France, Belgium, the Netherlands, Denmark, Portugal, Finland, Sweden and Ireland, as an important element in the consistency of strategies encouraging life-long learning. However, these mechanisms must be developed more systematically so as to facilitate the flows between the different learning systems. Similarly, new efforts are necessary to improve the availability and quality of information, advice and advisor services, even if interesting initiatives have been indicated by some member states (Belgium, Finland, France, the UK, Spain and Luxembourg).

2.5. Encouraging the idea of partnership

Strategies encouraging life-long learning demand co-ordination between the appropriate ministries and partnerships involving all the players concerned, the public authorities, suppliers of educational services, the social partners, individuals and the civil society. The crucial role of the social partners in life-long learning is recognised by all the member states. Although the nature and degree of involvement vary from one state to another.

The Guideline 15 calls the social partners to sign agreements, when necessary, on life-long learning so as to facilitate a capacity for adaptation and innovation.

Table 2 : agreements on vocational training at the level of the inter-sector and/or sector levels

ÉTATS MEMBRES	ACCÈS INDIVIDUEL À LA FORMATION	CONGÉ FORMATION	FORMATOINS AUX TIC	FONDS POUR LA FORMATION	FORMATION DU GROUPE AUX RISQUES	PROGRAMMES DE CERTIFICATIONS
Autriche	A	A,TI, L				
Belgique	A	A		F	A	TI
Allemagne	A			F	A	A
Danemark	A	(L)		F		
Grèce				F		
Espagne	A, L		A, TI	F	A	TI
France	A, L	A		F	A	A
Irlande	A		A, TI	F	A	
Italie	TI	L		F	TI	
Luxembourg	TI					
Pays-Bas	A, JI				I	
Portugal	A					
Finlande	A	A	TI			
Suède	A, JI	L	A, TI	F	F, JI	
Royaume-Uni	A?			F		

A= accord; L = législation ; F = financement ; JI= initiative conjointe tripartite

Source PAN 2001: ce tableau montre dans quels États membres les questions citées ont été abordées que ce soit dans un ou plusieurs accords entre les partenaires sociaux, dans la législation ou dans d'autres formes d'actions conjointes tripartites ou n'ont pas été abordées du tout. La colonne "financement" indique dans quelle mesure les partenaires sociaux ont pris en considération ou non le financement de la formation. Ce tableau ne rend pas compte du nombre d'actions entreprises.

2.6. Initial and continuing training

As can be seen in the table below, agreements on vocational training at the inter-sector and/or sector level have been signed in almost all of the member states, but information on the implementation and impact of these agreements is scarce.

In many cases, the funding of training is an important element. The management of this funding is often organised jointly by the social partners or on a tri-partite basis. The question of training for specific risk groups – such as workers without any formal initial training or older workers – is on the programme of several member states. Moreover, there are various joint or tri-partite initiatives in most member states whose aim is to improve the framework of life-long learning.

Even if the data is not sufficient to draw overall conclusion on the implementation of life-long learning strategies, certain specific points should be mentioned:

- ↳ the social partners of the Dutch bi-partite foundation for employment agreed to maintain wage moderation, the focus their action on training and the quality of work and to take into account the competitiveness of companies;
- ↳ in France and in Spain, the social partners signed agreements to improve access to life-long learning of workers on flexible contracts;
- ↳ several member states, including Finland, Greece, Spain, the Netherlands and the UK have developed initiatives for people in charge of learning in the workplace.
- ↳ in the Swedish agreement on electric power stations, 0.4 % of payroll is earmarked by the employer each year for skills developments. Should a particular employee not benefit from any skills development, their wage will be increased by 0.2 %.
- ↳ in Belgium, the social partners agreed at the inter-professional level that investment in training should represent 1.9 % of all wages by the end of 2004.

The Finish, Swedish and British PAN talk of common activity involving not only the social partners but also other players and in particular the regional and sector networks of companies, suppliers, research organisations, NGOs and local authorities.

Several member states warmly encourage, highlight and develop accreditation systems for non-formal life-long learning, in particular in the workplace, and consider them as an important way of promoting life-long learning in a constantly changing world.

2.7. Knowledge of the information society

Few solutions are envisaged in the PAN to promote life-long learning for those working in the fields of communication and information technology (CIT).

However, certain member states deserve particular mention:

- ↪ In Spain, 168 collective agreements concerning 630 000 workers contained clauses on the incorporation of new technologies. Moreover, a specific programme aimed at training 14 000 CIT specialists over three years was drawn up with employers in each sector.
- ↪ The Irish PAN insisted on the fact that individuals of all ages need basic CIT skills and that it is important that all sectors of the economy adapt to the particular skills required. In this context, an innovative adult literacy programme has been agreed on between the Irish Trades Union Congress and the FAS training organisation to bring together literacy training and CIT training.

2.8. Link between working time and training

The more developed programmes link working time and training. In the framework of the German Employment Alliance, the social partners agreed on an initiative associating policy in terms of working time and continuous training and retraining.

In France, the law of 19 January 2000 gives the social partners the possibility to develop training actions using working time accounts.

Financing of education and training

In terms of funding, the member states have adopted training grants, tax incentives (Belgium, Luxembourg, Sweden) or common funds (Italy, Sweden and the UK). Innovative financing measures covering more particularly personal loans or study grants, guaranteed by the state, are also widespread (Finland, Sweden, the UK, the Netherlands, Belgium, Italy, Spain). Concerning training leave, various programmes are looking to set up training leave for the unemployed (Denmark), educational leave (Austria) and sandwich courses for older workers. Spain is looking in particular into workers with atypical contracts (for further detail, see the section Adapting Capacity).

2.9. Lessons from the commission

To concretise life-long education and training for all, a wide range of measures and encouragements are necessary.

Creating a more qualified and more adaptable workforce, capable of jumping on the opportunities of professional mobility, means that the quantity and quality of training supplied and monitored must be increased; this is not possible without increasing significantly the overall level of public and private investment in education and training and by setting up mechanisms aimed at ensuring the best return on this investment. Specific measures are needed to respond to develop wider ranging skills in CIT and e-commerce, to respond to the particular needs of women and to improve access to the skills of many people who are find it difficult to enter or remain in the job market (young and older workers).

Employers, unions and the public authorities must, in co-operation, identify the future needs of permanent education and make sure that the quantity and quality of permanent education in companies are increased, clearly defining the role of each of the players (public authorities, social partners, individuals). This co-operation must enable the setting up of public/private partnerships, so as to provide adequate funding and support.

The measures could have incentives targeted at employers (e.g. tax cuts or lower social security payments or rewards for best practices) and on individuals, or persuasive measures (such as stoppages from companies which do not invest enough in continuing education).

The partners must agree on objectives in terms of increasing participation in life-long education and training and access for all (including the lower qualified) to continuing education throughout their active lives, and encouraging companies to become learning organisations, maximising access to the most up-to-date knowledge and developing more open internal training systems.

This covers specific strategies aimed at training, keeping and recruiting older workers, valuing the skills that they have acquired throughout their active lives. In particular, measures must be taken to given older workers the possibility of acquiring the culture of the information society. The member states must set targets to improve access to life-long education and training and to the jobs market for **women** and underprivileged **groups or minorities**.

3. Stakes of the transformation of the European electricity sector on the skills and abilities of the human resources

3.1. The new deal in the electricity sector: from electricity production to the emergence of a new global offer

The opening of the electricity and gas markets to competition in the framework of the directives of 1996 and 1998 provide the backdrop for the changes in the energy sector and in connected energies, in particular for collective services. This new regulation is one of the factors which is sometimes determinant in the re-composition of the sector, and has led to the redefinition of corporate strategy in this sector, to the energy groups and the internal organization methods.

On the operators' side, the factors at the source of the development of strategies for a global offering are regulatory, but not only regulatory. In effect, the determining factors in this policy are also industrial, technological, commercial and financial. It is the interaction between these different factors which has encouraged — if not made indispensable — an evolution in the strategy of companies, the commercial positioning and has broken down barriers in the areas of intervention, which were previously very distinct.

3.2. Liberalisation of the energy markets, a new deal contributing to the emergence of a multi-service offering...

In fact, from the economic point of view, the traditional organization of the network industries — generally in the form of a monopoly and vertically integrated — going from production to distribution and selling on to the final consumer has been queried since the 1980s in the USA, then in the UK, with the ultimate aim of introducing competition wherever possible so as to encourage a drop in prices and stimulate technical progress. This is the beginning of “deregulation”¹, i.e. the opening up to competition of certain segments of activity, a movement which has taken on a planetary scale.

¹ We prefer to talk of new regulations.

In Europe, this aim has encouraged several sectorwide directives which organise liberalisation, for each of the sectors concerned, in stages, and set the deadlines for the transposition of these texts into national law.

In the energy sector, the problems have proved to be more complex. In effect, the countries of the Union are positioned very differently, regarding the demands of the European Commission, the organizational methods having very marked national identities.

The movement for opening the energy markets is underway, inevitably and irreversibly. Resistance to it can slow down the movement but not stop it; this movement is at the origin of a vast recomposition of the European and worldwide energy industry, and only the first elements of it are visible today.

This development is also an essential driving force in the emergence of multi-services, as it tends towards the widening of the activities of the operators beyond their sector of origin – electricity or gas – for three reasons at least:

- ↳ Firstly, the opening up to competition creates a breaking down of barriers in the electricity, gas and telecommunications markets. By bringing to an end the former models based on monopolies, it makes it possible for new entrants to come into markets which had been denied to them up until then.
- ↳ Secondly, liberalisation should enable consumers – at least in the long run – to choose their suppliers freely. From passive to captive, consumers have become active: from users they have become clients in the full sense of the term. The former systems imposed a single point of contact where offers, tariffs and services were difficult to negotiate. Now, the final consumer – in particular those who are eligible for the opening of the competition – with the choice of their supplier, have the possibility of choosing from between several providers and can have their needs heard, needs which do not just concern pricing aspects. They can choose the product which suits them best, define the quality/price ratio desired², bring electricity into competition with other energies and combine, as they wish, the supply of energy or energies with other products and/or services. Under these conditions, just supplying energy is not enough to remain competitive and stand out with the emerging competition.

² Especially, as we will see later, as energies can be substituted for each other more easily due to technological progress.

- ↪ Finally, by encouraging the emergence of exchange systems, liberalisation also encourages multi-service offers simply because it is no longer necessary to produce electricity or to have a contract with a producer to be able to propose it in the marketplace.

All these factors mean that a logic of demand is gradually replacing a logic of offer, which used to characterise the energy industry. This change has led to a diversification of companies in types of energy and services: liberalisation has a tendency to remodel in depth the structures in the sector:

- ↪ between new competitors in a given market;
- ↪ breaking down of barriers between the gas, electricity and water markets;
- ↪ it encourages, even obliges, groups to widen their offering and to extend their ranges of services provided to customers and search for loyalty and gain new customers. This has led to alliances, mergers and alignments.

3.3. Recomposition of the offering through multi-service, multi-energy international development strategies

The development of deregulation and privatisation (with or without delegation of management) at the worldwide level of sectors as important as electricity, gas, water and the heating networks ... are taking place at a time when:

- ↪ the rise in environmental demands and the increasingly firm commitment to sustainable development focussed, currently, on the reduction of greenhouse gas emissions (Kyoto, Johannesburg) prioritises the various primary energies in a highly differentiated fashion given the taken into account of external factors;
- ↪ gas is taking off, be it through the development of gas pipelines (Europe, North America) or LNG which can be transported by tankers;
- ↪ competition has been facilitated by the introduction of efficient production methods, particularly electrical ones, such combined gas cycles and co-generation which benefit, for large power output ranges, of high yield levels and flexibility of use. This technological progress has transform the way of looking at previous investments by shortening the period of return and also reducing the profitability gaps between centralised production and decentralised production;

↳ in the longer term, major technological progress such as the fuel cell can be envisaged.

The opening of the markets in a context of the shaking up of the previous fundamentals of the sector can be translated by a multiplicity of strategic developments by firms, focused on the way they can perceive the threats on their current activities and also the opportunities for reconfiguration benefiting from the intense movement of disposals/acquisitions in place³.

The major strategic fact of these inter-company operations, in both the US and Europe, is the multi-energy and multi-service nature of the operations of diversification/refocusing.

The remodelling of the sector is both horizontal (arrival of new competitors in the different market segments and strengthening of previous positions, if not withdrawal) and vertical insofar as there is a breaking down of barriers between the various market segments in the industry (gas, electricity, water, associated services).

At the European level, large groups have moved forward in particular on the implementation of multi-energy multi-service strategies, but with the incorporation of complementary ideas at both national and cross-border levels:

- ↳ Restructuring of national producers : Particularly active restructuring/concentration of national producers in Germany.
- ↳ Concentrations by cross-border acquisition : These operations are seen by a multiplicity of operations in a large part of Europe over 2000 and 2001.

The multiplicity of operations (less active for the time being in gas in Europe due to later deregulation) and the differences of strategic direction of the groups emerging through these operations means that there is not just one single development model appearing, however, in a number of cases, these strategic movements have led to a widening of offering towards more global and more integrated services and in parallel a refocusing of activities and the development of a process of outsourcing.

³ in 2001 groups in the energy/environment sector made 21 operations of a value of more than a billion dollars. 34 operations were noted in 2000

3.4. The widening of the offering and going beyond the paradigm of technical skills

The expression of increasingly complex demands made by customers and above all the risks of market volatility, brought by the opening of the markets to competition, have led to the construction of so-called “global” offerings.

The challenge for these suppliers is to extend their offer beyond their traditional activities by enriching their services with added value for the customer. It has also become necessary to rethink the customer segmentation aimed at, as the offering must now be adapted to suit different types of customers.

In this context, as the ECOTEC⁴ study stresses, “*the movement from monolithic quasi-industrial companies to service-oriented flexible companies*” has brought a sea change to the culture of companies in the electricity industry, skills are now reoriented so as to cover the following main functions:

- ↳ brokerage and trading of electricity to ensure the lowest prices for major customers;
- ↳ marketing, to keep current customers and to attract new ones, and to respond to their needs in terms of electricity and also a growing number of other services;
- ↳ the setting up of multiple services supplying not only electricity, but also gas, water, telephone and internet services;
- ↳ project management, concerning, for instance, the planning of installations or building for good energy consumption;
- ↳ the management of contracts for outside companies or for outsourced internal functions;
- ↳ customer service through call centres providing information, marketing or maintenance services;
- ↳ commercial development to guarantee growth of business either in existing functions or through diversification;
- ↳ IT and communication, in growing demand following not only the increasing proliferation of information technology within the company, but also with the increasing volume of IT consulting services provided by companies.

⁴ Effects of the liberalisation of the electricity and gas sectors on employment. Study commissioned by the DG Energy and Transports and the DG Employment and Social Affairs of the European Commission.

Although the technical skills relating to the sector remain relevant, focus is now less present on traditional basic activities such as network maintenance. If this type of function continues to be part of the activity, even though they are sometimes outsourced in certain cases, it is now more probable that the technical skills will be demanded in combination with other skills in project management of commercial development.

3.5. Challenges for the period, for companies in the electricity sector, the integration of new skills combined with the quantitative and qualitative impact on jobs of the implementation of the Kyoto protocol

Since the Johannesburg summit (September 2002), the Kyoto protocol will soon be applied and be part of an approach going towards sustainable development encouraging energy production producing fewer greenhouse gases and the development of renewable energies.

From the employment point of view, concerning Europe, most studies come to the conclusion that the measures for combating climate change will have a positive impact. The European Commission white paper estimates 500 000 net jobs in 2010 for the EU, created directly by the renewable energies sector, and 400 000 jobs created indirectly.

For energy (gas, electricity, water) the study carried out by Dr. Janima Scheelhaase for the German environment ministry concludes a positive impact on jobs however, after reconversion of jobs to clean and/or renewable technologies (abandoning of coal for gas, wind power, solar power, fuel cells, mini-hydraulics, etc.).

PART IV

**Presentation and analysis of the data
collected
by means of answers the questionnaire**

1. Information about the sample of companies having answered the questionnaire

Within the framework of the European sectorial dialogue, a survey was realized in May-June, 2002 with affiliated companies to Eurelectric with the aim of collecting information about the aspects of the training and the acquisition of skills, which influence the competitiveness of the European sector of the electricity.

On the basis of a questionnaire focused on skills needs and initiatives for supporting the lifelong learning, more than about twenty (23) major companies in the sector participated jointly with the social partners in the survey.

The sample represents 364 000 employees, is 45,5% of the headcounts which includes Eurelectric.

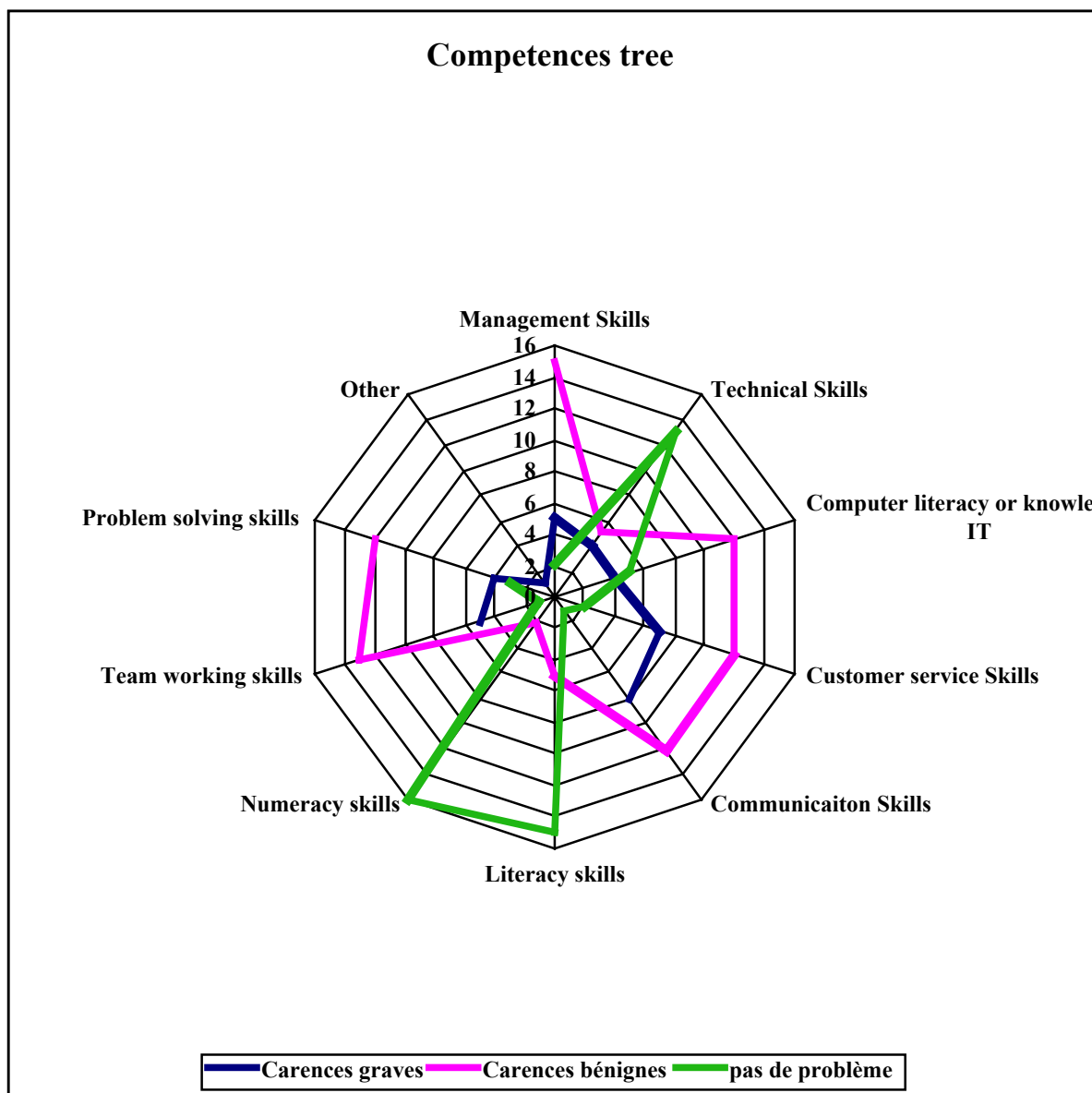
This sample covers 13 European countries (Germany, France, Italy, Great-Britain, Ireland, Belgium, Sweden, Finland, Austria, Hungary, Lettonia, Denmark, Cyprus).

The important countries of the European Union not represented in the sample are Spain, Netherlands and Greece.

The group of 4 countries (France, Italy, Great-Britain, and Germany) weighs to him only 78% of the headcounts of the sample.

2. Analysis and diagnosis of needs of skills.

Evolving in an environment in full change, the companies of the sample estimate on the whole that the development of new services, the opening in the competition and the evolution of technologies and demand lead to a significant evolution of the employment as quantitatively as qualitatively. If, from a quantitative point of view, employment is directed in the decline, in the continuation of the movement begun since several years already, from a qualitative point of view, on the contrary, the



weight of qualified jobs should strengthen, notably for the whole of the professions of services to customers.

Question 8 : What change is expected in the needs of skills over the next 3 years, beginning August 2001 ? Tick one box only for each category of employees.

So, in the **questions 8**, 83% of answers assert that the needs of skills « services to customers » are going to increase during the next 3 years, 39% of which estimate that this increase will be substantial.

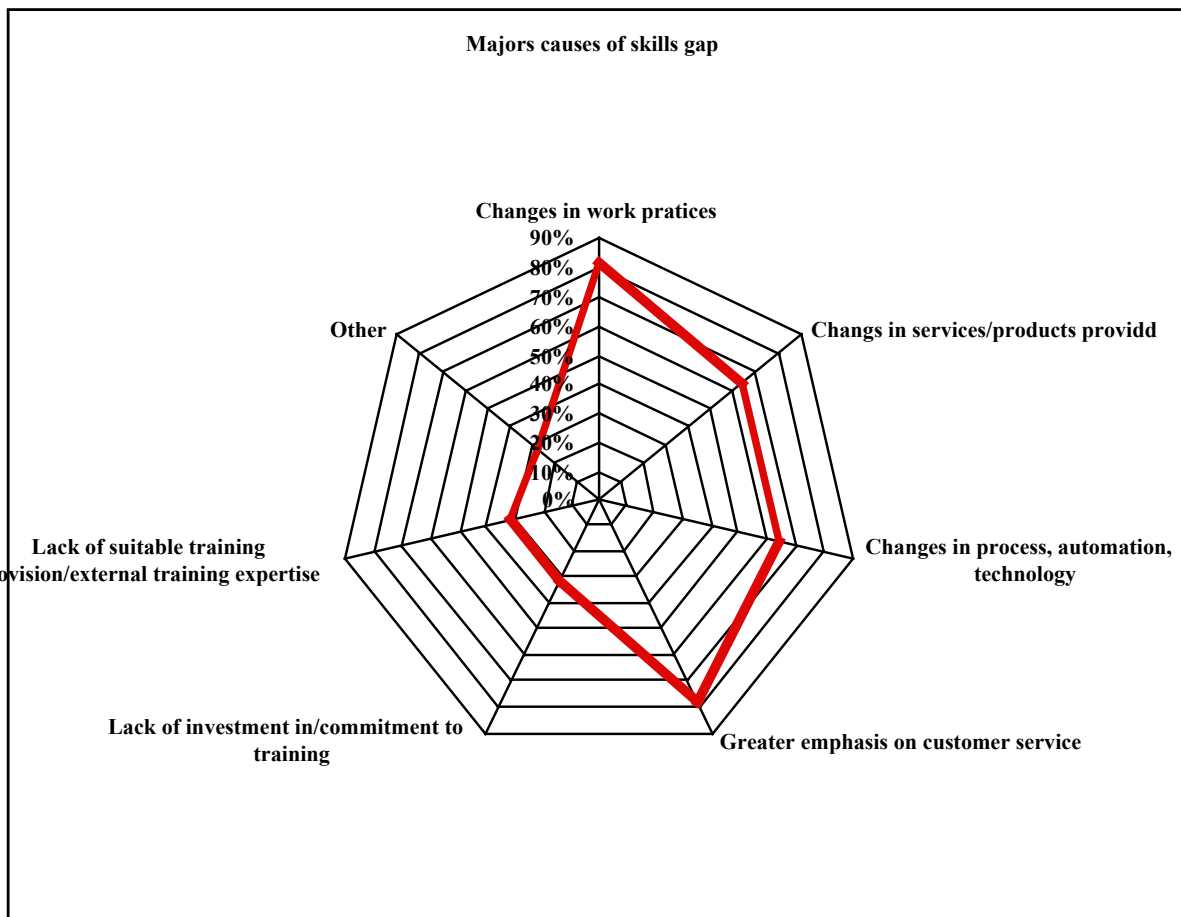
Needs in skills « teamwork » (81% of answers estimate that they are going to increase by 3 years), « resolution of problems » (80% of answers foresee their increase by 3 years) and « mastery or basic knowledges in NTIC » (79% of answers foresee their increase) and « communications » (67% of answers) are a part of priority necessities to satisfy short and middle term.

Question 10 : Would you say that a gap exists between the type of skills that your current employees have now and those they need to meet your current business objectives?

For the **question 10**, 91% of the companies of the sample estimate that there is today an important gap between current skills and those necessary to answer at the same time to the strategic targets and the organizational changes of the companies.

Question 11 : Please identify from the following list those specific skills which your company is lacking. For each skill, tick one of the 4 boxes to indicate how big the problem is.

The answers to the **question 11** show that the tree of the current skills of the sector's employees lets suspect that, if the technical skills are mastered (skills on which relaying the technical culture of the electricians dominated by paradigm of the



output : technical capacities, writing, calculation), it is not anything necessary « new » skills in the new environment in which evolve the companies of the sector.

So, no company of the sample estimates that it must to face serious deficiencies of skills « writing and reading » and « calculation », and only 17% of companies estimate that the skills « technical capacities » present a serious deficiency.

On the other hand, 91% of companies estimate that they must remedy deficiencies of skills in « communication », « capacity in the management », they are 87% in this situation for the « skills services to the customers », 74% for the skills « mastery in basic knowledges in NTIC » and « resolution of problems », and 83% for the skills « teamwork ».

Question 12 : What are the major causes of any skills gap you are experiencing? Please tick as many possible.

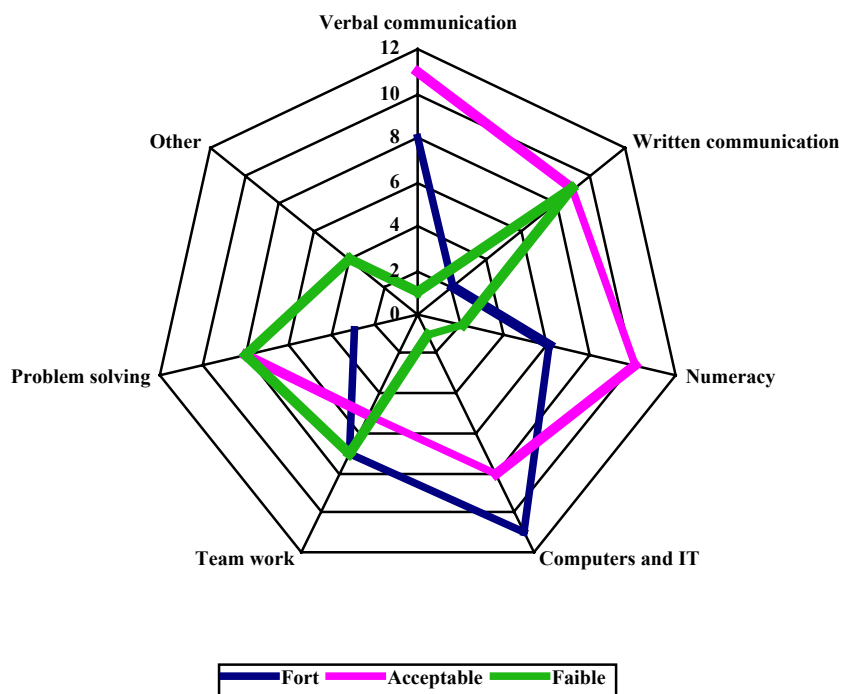
The results of the **question 12** reveal that the cartography of the reasons for maladjustment draws a bipolarity between the emergence of a business economy of services : services, supplied outputs, consideration to the service in the customer on one hand, and organizational changes (methods of work, automation, technology, process) on the other hand.

Between 61% and 78% of the companies of the sample defined as reasons of the gap in the levels of skills, those described above and in the cartography opposite.

Would you say that a gap exists between the type of skills that young entrants have now and those they need to meet your current business objectives ?

Please indicate your perception of the skills strengths and weaknesses in new entrants to the industry under 21 years of age (school leavers).

competences tree in new entrants to the industry under 21



Question 13-17 : How many positions (apprenticeships) are offered to school leavers per year ? Was not possible to collect data for the whole sector.

Are these part of a collective agreement or other ? There is a collective agreement only for a certain type of employment contract for school leavers Are apprenticeships part of your recruitment policy ?

Questions 13-17 concern specifically the young people of less than 21 years.

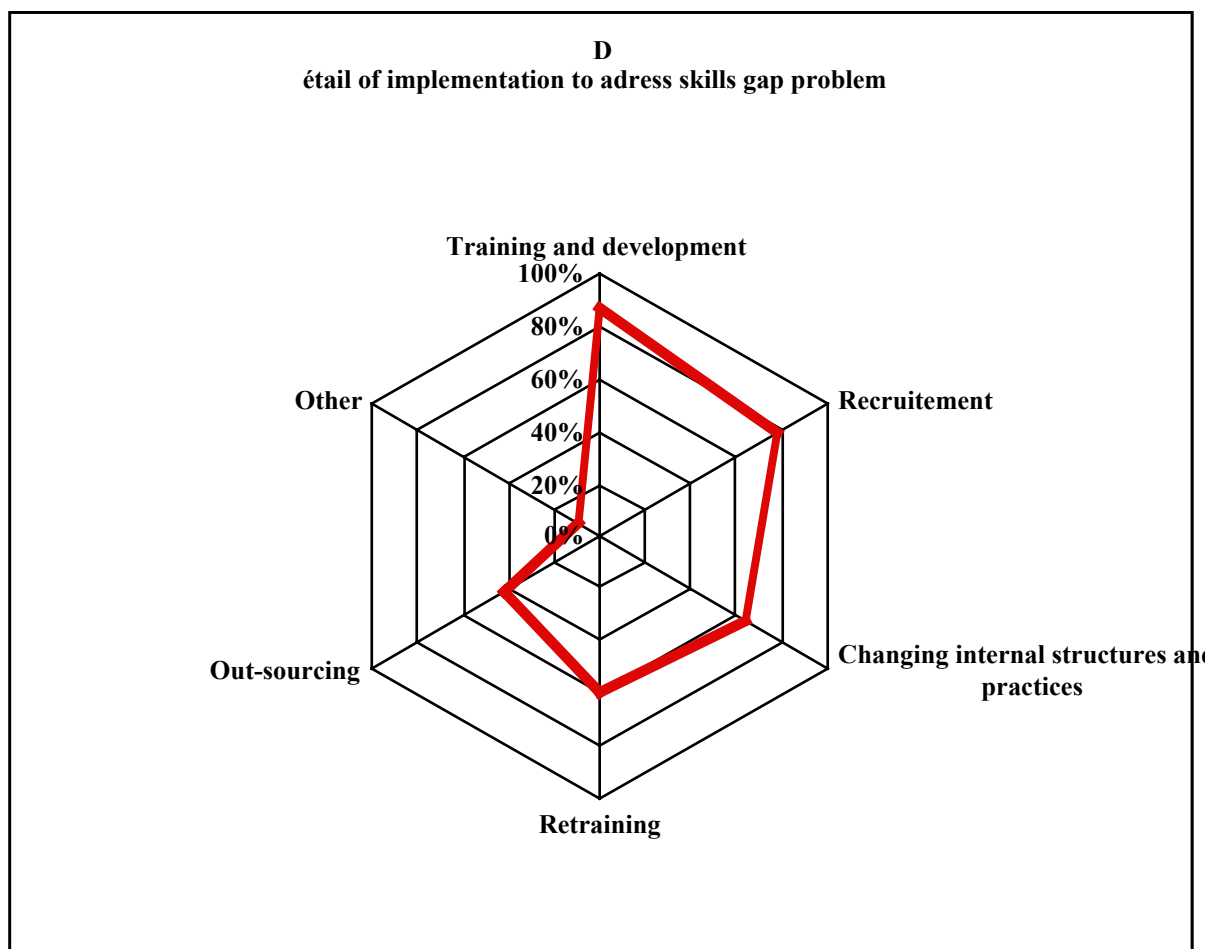
For 3/4 companies of the sample, the skills of the young people of less than 21 years appear unsuitable for their needs. The young people have a major trump card because of their strong skills in information technologies and master altogether the basic corpus (calculation, oral communication). The companies of the sample estimate at 95% that the level of the young people is at least acceptable for the oral communication as well as for the data processing and the NTIC, and they are at 90% to be satisfied of their level in calculation.

On the other hand, the young people going out of the school system have'nt , in their wide majority, not formal skills appropriate for the exercise of a profession (respectively 35% and 43% of answers fo the teamwork and the resolution of problems), and they don't arrange certain formal skills as the written communication (43% of answers).

Besides, 42% of the companies of the sample assert recruiting of the young people in learning's posts within the framework of a collective agreement.

Question 18 : Please indicate how you are seeking to address your skills gap problem. Tick as many relevant boxes as appropriate.

Question 18 shows that on the basis of the diagnosis of forces and weaknesses of their employees and of the report of a strong disparity between on one hand, the internal resources and on the other hand the supply of skills of the young people on



the labour market and more globally of the labour market, the companies of the sector develop policies articulated around two major axes :

- ↳ a management of human resources based on the training of the « adaptable » employees (87% of the answers of the sample) and the entering on one hand, on the hiring (61% of answers) and the external mobility for the not adaptable populations on the other hand (61% of answers) :
- ↳ the evolution of the organization through notably the modification of internal structures and practices (61% of the answers of the sample) and the appeal to the outsourcing -suppliers of services- (39% of answers).

3. The hirings

Question 19 : Are there current job vacancies ?

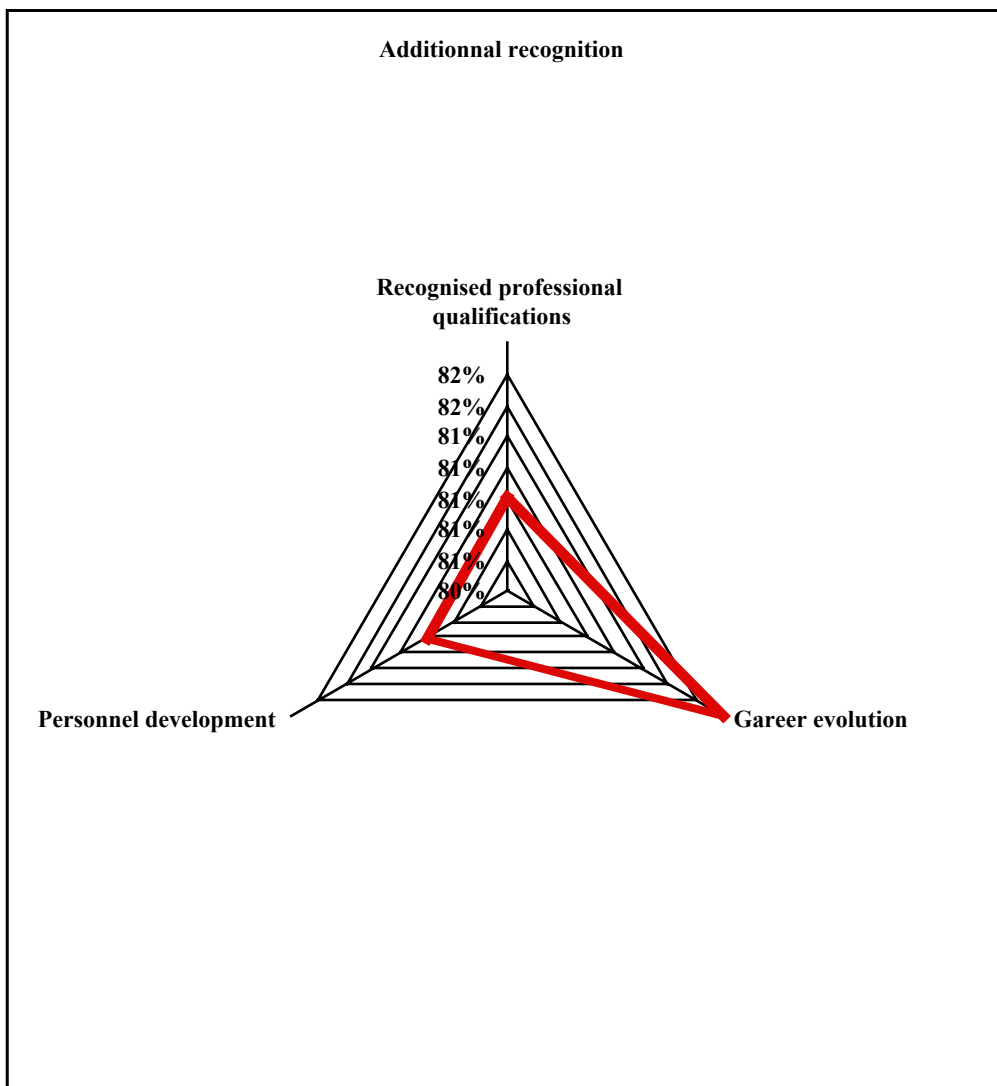
Question 20 : Have there been any job vacancies in your company over the last 12 months ?

In answer to the **question 19**, almost 3/4 companies of the sample (74%) confirms to arrange vacant jobs and almost totality (96%) of them saw jobs becoming free during the last 12 months (**question 20**).

**Question 21 : What impact are these ‘hard-to-fill’ vacancies having on your business?
 Please tick as many of the following accordingly.**

As reveals it **question 21**, the main consequence of the « vacancy of jobs difficult to fill » is, according to more half of the companies of the sample (52%), the increase of the costs of exploitation because of supplementary hours and of the appeal to the subcontracting and to the interim to face their needs.

The other consequences noticed by 17% of the companies of the sample are : costs of job vacancies (announce, agencies of recruitment) greater than the average and the decline of the quality of services offered to the customers.



Question 22 : What action are you taking in trying to fill these vacancies ? Please tick as many of the following accordingly.

The results of the **questions 22** show that the main measures taken to try to fill these vacant jobs are :

Concerning external measures :

- ↪ For 74% of the companies of the sample, appeal to the advertisement and a more frequent publication of announcements
- ↪ For 70% of them, the use of jobs agencies, employment offices ;
- ↪ For 56% of them, direct recruitment in schools.

Concerning internal measures :

- ↪ For 61% of the companies of the sample, the implementation of trainings of the existing staff to occupy these jobs ;
- ↪ For 48% of them, the modification of the nature of the job in the direction of the enrichment (more skills, autonomy, responsibilities).

4. Lifelong learning

Question 17 : Are apprenticeships part of your recruitment policy?

It spring of the **question 17** that learning, integral part of any training's policy, is integrated as such in the hiring's policy only for 57% of the companies of the sample, and still in a very variable way from a company to the other one.

For the greater part, learning remains marginal in percentage of registered headcounts (the two more important companies of the sample have novice's percentage lower than 1%).

Question 23 : Is your company committed to developing the workforce?

Question 24 : Does your company have a dedicated training budget?

Question 25 : Has your company carried out a review of the training needs of your employees within the past year?

On the contrary, the big majority of the companies of the sample (95%) involve in the development of their staff (**question 23**).

- ↳ Or through the implementation of a specific plan of training (74% of the sample) elaborated on the basis of a survey of necessities (78%) (**question 25**) and on a specific budget (96%) (**question 24**).
- ↳ - Or through measures allowing the employees to access an external training out of the company (taken care by the financing, training leave).

The external training represents a number of variable days from a company to other one of the sample (from 2 to 5 days by employee).

Question 26 : How many training days did your company deliver over the last twelve months? (Please include off-job training days only.)

It is all the more raised as the percentage of trained employees is weak (**question 26**).

Question 27 : What proportion of your total workforce received off-job training over the last 12 months?

The proportion of headcounts having benefited from a training outside the company in the last 12 months is very contrasted from a company to other one, from 2% to 100% (**question 27**).

Question 28 : Please indicate the types of training provided over the past 12 months. Tick as many boxes as possible. Then, alongside the tick boxes, indicate where most training has taken place by ranking them 1, 2 and 3 etc, where 1 is your most frequently provided training.

The answers to the **question 28** show that the priority axes of training in the last 12 months were :

- ↳ Training in new technologies (100 % of the companies of the sample).
- ↳ Technical training (100% of the companies of the sample).
- ↳ Training in the management (91% of the companies of the sample).
- ↳ Hygiene and safety training (87% of the companies of the sample).
- ↳ Training in languages (78% « « « « « »).
- ↳ Training in the service in the customer (74% « « « »).

Question 23 : Is your company committed to developing the workforce ?

For 59% of the companies of the sample, in answer too the **question 23**, the training joins within the framework of a collective agreement. This one settles the questions relatively as the financing of the training as the right for the training.

Question 33 : Is there an agreement between the social partners on Life Long Learning in your organisation ?

Paradoxically, there are only very few agreements among the social partners who join within the framework of the lifelong learning : only 13% of companies are concerned by agreements of this type, limited to denmark, to germany and Italy (**question 33**). A program of lifelong training was defined and implemented in an irish company but without agreement with Trade Unions.

So, training is essentially conceived to meet the needs of adaptation of skills to the evolution of organizations.

However, when they are estimated within the framework of training plans articulated to the business plan of the company, the analysis of the future necessities and the actions of training to implemente makes the object of a participative method in the companies where exists an agreement or a collective agreement (59% of the sample). The trade unions can be integrated into different degrees before the formalization of the training actions :

- ↳ preliminary consultation

- ↳ parity evaluation of offered training
- ↳ parity groups of work on particular subjects : internal and external mobility.

Question 30 : Does your company approve this above definition of Life Long Learning?

What would you add or delete ?

On the sample considered, in answer to the **question 30**, strong support came out concerning the concept of life-long learning as defined in the questionnaire as follows :

“All learning "from cradle to grave", from the early years through adult life - including the Third age - encompassing a common core of knowledge and skills which goes beyond basic numeracy and literacy.

Not only about employment-related skills, but also about updating all kinds of abilities, interests, knowledge and understanding throughout life. All kinds of learning, including non-formal, such as acquiring vocational skills at the workplace or language skills from participating in a study circle organised by an NGO and informal skills, such as learning how to play football or an instrument together with friends.

Therefore, lifelong learning can be defined as "all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence".

Lifelong learning should be open to all citizens although the content of learning, the way learning is being "delivered" and where it takes place may vary depending on who the learner is. Lifelong learning is as much about providing "second chances" to update basic skills as it is about offering learning opportunities at more advanced levels.

The overall aims of this strategy are to develop active citizenship, employability, adaptability, social inclusion and individual fulfilment.”

Question 33 : Is there an agreement between the social partners on Life Long Learning in your organisation ?

The companies of the sample join at 83% to this definition. If the collective agreements “lifelong learning” are up to here rare (**question 33**), the companies of the sample seem on the other hand to be interested in it. They are inclined in 95% to discuss cases of good practices with a member of the european study group “lifelong learning” social partners.

Question 32 : Is there additional recognition in your organisation in case of participation in Life Long Learning actions ? If yes, what kind of recognition ?

They foresee, for 78% of them, a supplementary shape of reward of the employees participating in actions of lifelong learning : recognition of professional skills, evolution of the career, personal development (**question 32**).

Question 29 : How do you encourage employees to be motivated towards their continuing development? Through appropriate compensation plans and through planning and carrying out development and training plans (consistent with company objectives).

Central in any method of training, the motivation of the employees is founded, in big majority in the answers of the sample of companies to the **question 29**, on the recognition of skills acquired in terms of career development, system of payment but also in terms of enrichment of jobs and autonomy.

Besides, some companies implemente mechanisms of instigation, whether it is through the coverage of the cost of the training or still the flexible time management, to follow training.

Question 18 : Please indicate how you are seeking to address your skills gap problem. Tick as many relevant boxes as appropriate.

In this frame, in terms of good practices stand out :

- ↳ the long-term training (4 years), setted up in one of the companies of the sample, allowing workers or employees to become engineers or executives
- ↳ the flexible time management of the women (27% of the sample **question 18**) to allow them to follow trainings outside of the company (in alternation). However, specific measures for the feminine staff (nursery, specific groups of training, E-learning,...) remain marginal when they are'nt framed by the law.

The rate of feminization of the european power sector remains weak (23% of the sample on average, what is a rate greater to the global real rate of 15% estimated by Eurelectric) and the

implementation of an active policy of equality of opportunity is far from being consensual in this sector : less half of the sample of companies undertook in writing in such a method, and only 17% of the companies of the sample concluded collective agreements on this question.

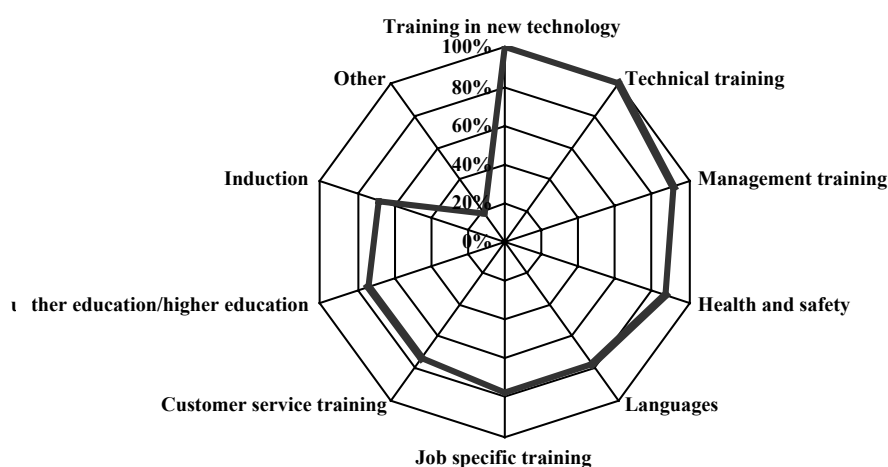
For their part, companies engaged contractually on the lifelong learning develop particular devices to allow their employees to invest in the personal development (for example, taken care in 50% of the cost of the training).

On the other hand, the question of the commitment toward the populations of the ageing employees (**question 18**) does not seem shared. Moreover, in case of restructuring, only 28% of companies set up specific programs intended to favor the mobility of the ageing employees.

As a general rule, the management of the ageing employees falls to the community, through notably the measures of ages, but is little taken into account in the strategies of human resources of companies.

This approach appears in gap with shown objectives the european Commission to reach by 2010, the target of 50% of employment for the persons of the age bracket 55-64 years in the European Union, such as it was defined by the european Council of Stockholm.

Types of training



In this end, States members have to elaborate policies in favour of the preservation of the active life of older employees by adopting measures to maintain their working capacity and their skills, to adopt an more flexible work's organization and to make sensitive the employers in the potential which they represent. States members have to make sure that the older employees benefit from an access being enough for the additional education and training, and to reconsider fiscal and social welfare systems to remove disheartening measures and to incite them to remain active on the labour market.

5. Social welfare during restructuring

Question 37 : During structural changes, are there parallel measures to aid personnel development or social protection ? (include measures with public support).

The **question 37** reveals the social accompanying's measures of restructuring the most used by the companies of the sample :

↳ aid in the geographic mobility (internal reconversion)	39%
↳ aid in the professional mobility (transfer towards the another headoffice)	39%
↳ Stimulants in the dismissal	39%
↳ Early retirement	39%
↳ Aid in professional mobility (external reconversion)	26%
↳ Other measures (sabbatical leaves, aid in the creation of a not wage-earning activity, outsourcing,...)	35%

It is to notice that measures in favour of the internal professional and geographic mobility in the companies of the sample are as important as the measures of departures of the staff (early retirement, dismissals, outsourcing, external reclassifying,...),

and so that lifelong learning as tool of projected management of jobs within a group of companies to face the deep and fast changes of its environment becomes a determining stake to insure protection and development of the human resources of this sector.

Sample to the lifelong learning survey

	Number of employees	Female	% Female	% Off-job training	Workforce received off-job training	Training days	Days per trainees
Electrabel	12 696	2 146	16,9%	69%	8 760	7 102	0,8
Federelecttrica	12 777	2 044	16,0%	100%	12 777	25 554	2,0
NPP	2 743	606	22,1%	6%	165	7 614	46,3
Nord-Energi	315	100	31,7%		0		
Energi EZ	1 250	200	16,0%	80%	1 000	6 000	6,0
EDF	115 677	25 555	22,1%	65%	75 190	375 950	5,0
SWB AG	1 384	228	16,5%		0		
EA of Cyprus	1 940	237	12,2%	40%	776	500	0,6
ESB PG	1 946	133	6,8%		0		
EC UK	70 000	32 000	45,7%	30%	21 000	105 000	5,0
ESB	9 208	1 757	19,1%	60%	5 525	32 000	5,8
LATVENERGO	6 778	1 850	27,3%	2%	102	23 983	235,9
MVM	300	222	74,0%	33%	99	1 080	10,9
KE (CE)	1 551	363	23,4%	25%	388	3 000	7,7
ENV AG	1 558	200	12,8%	60%	935	222	0,2
VEO	21 927	2 964	13,5%	40%	8 771		0,0
KE OY	55	12	21,8%	75%	41	80	1,9
SSS OY	140	2	1,4%	99%	139	740	5,3
ENEL	63 140	8 084	12,8%	90%	56 826	205 000	3,6
MVV E	3 500	1 200	34,30%	30%	1 050	2 625	2,5
STEAG	1 835	167	9,10%				
RWE	13 158	575	4,40%	35%	4 605	15 868	3,5
EFAAB	20 000	5 000	25,00%				
TOTAL	363 878	85 645	23,50%	54,5%	198 147	812 318	4,1

1. Conclusions

1.1. A change in the context of competition and the management of employment paths

Changes in the electricity sector (new services and strong customer focus, opening up of competition, technological progress, etc.) have produced new transformations in the sector, but transformations which have been widely seen since 1985-1990 in other sectors where “downstream” dominance has developed significantly.

The difficult management of employment paths carried out by electrical companies is linked to the modifications in skills required and the emergence of new professional fields.

This transformation is clearly seen in the gaps observed in the skills tree (team work, problem solving, management capacity, customer service and communication) and in the reasons for unsuitability (working methods, changes in process, modification of services and customer offer).

Clearly, older employee populations are faced with this problem, but they are not alone since the younger employee population (skills tree of the under 21s) have fewer skills in fields of professionalism (problem solving, team work, written communication) which are central to the new configuration of the electricity sector; and the female population, which is not very present in this sector of activity (23%) are not encouraged by equal opportunities policies (less than a quarter of the companies in the sample had collective agreements on this issue) and are victims of discrimination in access to continuing training.

The emerging unsuitabilities seem to be more global and to raise the issue of training in a framework which goes beyond the more political question of retirement age and the direction chosen by the European Commission (50% employment by 2010 for people aged between 55 and 64) confirmed by the European Council in Stockholm.

1.2. Older salaried populations are not very involved in mobility programmes

The second conclusion which emerges from the survey concerns more specifically the older salaried populations insofar as only 28 % of companies in the sample have specific programmes to encourage the mobility of ageing employees. As the Ecotec survey stresses, up until now, companies in the sector have sought to perform staff reductions in as respectful a way as possible in relation to social imperatives, through voluntary early retirement along with other incentives. This policy has been greatly facilitated by the ageing staff structure in a number of electricity companies. In some countries, this strategy has been supported by government policies aimed at encouraging early or partial retirement.

Today, this policy of encouraging early retirement goes against a movement supported by many EU member states, who are looking to abandoning recourse to early retirement to cut unemployment, particularly given certain demographic trends. According to a survey carried out by Eurelectric, companies consider that in the future they will have less recourse to early retirement. This decision is due to a large extent to the high costs involved in this strategy. Moreover, the possibility of opting for early retirement is dropping with the evolution of the age pyramid. The question of internal mobility of older employees is becoming a major challenge for companies in the sector, which supposes high investment in human resources and in particular through the implementation of real career paths based on the recognition of acquired skills and learning, be they formal, non-formal or informal.

1.3. The third conclusion which emerges from very characterised human resources management choices

The policies developed by the electricity sector are based on two main pillars:

- ↳ On the one hand, the development of training for “adaptable” employees, the search for external mobility for “un-adaptable” employees and hiring.
- ↳ On the other, changes in organization (modifications in internal practices and structures) bringing out in a more structural way recourse to outsourcing through the development of service providers.

1.4. An inequality situation for women in the European electricity sector

The impact of the process of change and restructuring in the European electricity sector on the social and professional situation of women is not clearly identified.

In a study carried out by Ecotec for the European Commission, it was suggested that the restructuring of the sector in the 90's affected women more than men following the phenomenon of outsourcing tasks and the duplication of administrative positions. But the observation was also made that a larger number of jobs traditionally reserved for women (such as customer service) had been created.

The industrial electricity sector was marked by a very low level of female employment (around 15 %) and this rate does not seem to have changed for several years.

The professional sector is still heavily based on the inequality of the sexes, women being employed mainly in HR management, administration, secretarial and sales.

The figures available show that men still have easier access to internal and external training and promotions than women do.

Some factors inherent to the industrial electricity sector have had a negative impact on women's capacity to access jobs, training, promotion and equal opportunities in this sector:

- ↳ the low number of women in this industry has marginalised the importance of the issue of equal opportunities and conciliation;
- ↳ the lack of women in management positions to implement a programme of women and equal opportunities;
- ↳ the high number of job losses following drastic restructuring in the sector which is often considered as have greater impact on men than women and has sometimes hindered the progress of any existing equal opportunity programmes;
- ↳ the responses of companies relating to equal opportunity policies are significantly influenced by the perception of the size of the impact of restructuring on women.

However, in many companies in the sector, there is a growing awareness that this under-representation and this female discrimination is unfavourable for the performance of this industry, particularly as in the near future, electricity companies will be faced with a growing

need to adapt to the increasing pressures of competition and have to be innovative in terms of products and markets.

However, they face this challenge with often ageing human resources with outdated skills.

The development and integration of female human resources to take on this challenge is a fundamental stake.

These conclusions are inspired by data of the questionnaire and also by those expressed in the Ecotec study, but also those expressed by the European Commission (memorandum, Cedefop) as well as those formulated in the studies of ILO and Unesco.

1.5. Learning from good practices in the European Commission memorandum on “lifelong education and training”

The responses from the process of consultation of the states and European social partners in the framework of the European Commission memorandum, showed a wealth of exchanges of information and good practices at the European level on the implementation of actions for lifelong education and training, particularly on the following main aspects: optimisation of access conditions for the target populations to lifelong education and training, the development of efficient teaching and training methods.

The member states of the European Union all showed a genuine interest in the following aspects:

- ↳ improving the status, quality and recognition of learning on the job and in the local community;
- ↳ reviewing the content and style of initial and continuing education for teachers and trainers;
- ↳ articulating innovation in the methods and innovation in the recognition of training, particularly in the results of non-formal and informal training;
- ↳ developing high quality IT-based methods and materials accessible to all categories of learners.

There is a consensus on the need to support the introduction of new learning methods through modifications in the content of learning and more concretely to articulate the learning around cross-disciplinary areas of knowledge and skills, based in practice, which would, under ideal

circumstances, enable active and independent learners to develop in diversified situations with the support of teachers/trainers as resource providers, guides and tutors. This approach is given in a point of order in the Denmark's report which recommends moving "from the teaching of teachers to the learning of learners".

Many states in the European Union feel that it is necessary to compensate more theoretical methods of teaching and training through the acquisition of skills making it possible to act in full knowledge in their professional, social and personal lives (according to Ireland, this also corresponds to a holistic learner-focused approach).

Education and pedagogy must adopt (as the Netherlands put it expressly) a vision which is no longer instructivist but constructivist of the learning process, whatever the context. Learning is an interactive, group activity, in which learners take responsibility for the gaining of knowledge, with the support of professional resource providers, than can be called teachers, tutors, instructors, facilitators, or colleagues. This type of learning is nothing new, but its appropriateness and value remain underestimated, as it takes place generally in the workplace and in the company, rather than in conventional classrooms.

This type of learning demands environments which are more fluid and more dynamic and a lifelong learning cycle so as to build and maintain new basic skills.

Learner-focused methods also demand a redefinition of the role of teachers and trainers, who become learning facilitators, rather than agents who predefine and regulate the path, the focus and the pace. This means that the states must implement policies introducing recognised qualifications, training possibilities and career perspectives for teachers and trainers working outside the formal sector and with a view to providing a global offering based on the concept of lifelong education and training.

These methods also necessitate reorganization in the times, space and content of educational programmes, as much in formal education and training as between formal, non-formal and informal contexts.

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Annexes

EUR ELECTRIC/EMCEF/EP SU

**LIFELONG LEARNING SURVEY
AN ELECTRICITY SECTORAL DIALOGUE
PROJECT**

Global answers to the questionnaire

EURELECTRIC Social Dialogue Lifelong Learning Project

2001 Survey

This questionnaire aims to gather information on skills and training issues relevant to the competitiveness of the European electricity sector. It focuses on skills requirements, skills shortages, redeployment and initiatives to support lifelong learning. The information gathered will help the social partners in understanding the developments and in taking appropriate action.

It would be appreciated if you could answer the questions as fully and accurately as possible. If any of the questions prove difficult to answer please provide a ‘best guess.’

EURELECTRIC, EPSU and EMCEF recommend that the questionnaire is filled in jointly between the social partners (at national or local/company level, what is deemed appropriate). A national (steering or work) group to accompany this process is equally recommended.

What is Lifelong Learning?

All learning "from cradle to grave", from the early years through adult life - including the Third age - encompassing a common core of knowledge and skills which goes beyond basic numeracy and literacy.

Not only about employment-related skills, but also about updating all kinds of abilities, interests, knowledge and understanding throughout life. All kinds of learning, including non-formal, such as acquiring vocational skills at the workplace or language skills from participating in a study circle organised by an NGO and informal skills, such as learning how to play football or an instrument together with friends.

Therefore, lifelong learning can be defined as "all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence".

Lifelong learning should be open to all citizens although the content of learning, the way learning is being "delivered" and where it takes place may vary depending on who the learner is. Lifelong learning is as much about providing "second chances" to update basic skills as it is about offering

learning opportunities at more advanced levels.

The overall aims of this strategy are to develop active citizenship, employability, adaptability, social inclusion and individual fulfilment.

Company Information

1. Contact Details

Company Name/ Employer Organisation

Contact

For the employer

For the trade union (s)

Tel. Number(s)

Email address(es)

2. Business Activities

Joint response Yes / No - National Co-ordination Group

Yes No Rank

Please indicate the main business activities of your company. Tick as many as apply.

Then alongside the tick boxes, please indicate up to three of your core operations by ranking them 1, 2 and 3, where 1 is your most important operation.

Electricity generation	21		
Electricity distribution	17		
Electricity supply	14		
Electricity transmission	10		
Electrical contracting	8		
Appliance retailing	1		
Overseas investments	9		

Please answer the remaining questions in relation to *electricity generation, distribution, supply and transmission activities only*. (If you wish to provide information relating to your other business activities please photocopy and complete separate forms as appropriate.)

Please confirm below which business(es) you are providing information for:-

Electricity generation	20
Electricity distribution	18
Electricity supply	15
Electricity transmission	14

Employment Information

3. How many people are currently employed in the company?

	Full-time (30 hours or more per week)	Part-time (Less than 30 hours per week)	TOTAL
Male			
Female			

4. How many people are employed in the following occupations?

Occupation	Number of Employees Male	Number of Employees Female
Managers		
Professional and technical (Non-managerial)		
Craft and related trades		
Clerical and secretarial		
Apprentices		
Other (please specify)		
TOTAL (should be the same as the total in Question 3)		

5. What proportion of employees are registered disabled? %

6. Is there a written equal opportunities policy? Yes No
 11 12

If yes, was this established through a collective agreement of other?

7. In which activities are subcontract workers commonly employed?

8. What change is expected in employee numbers over the next 3 years, beginning August 2001? Tick one box only for each category.

Skill	Substantial increase	Increase	Stay the same	Decrease	Substantial decrease
Management skills	2	12	7	3	
Technical skills		14	7	3	
Computer literacy or knowledge of IT	6	13	5	1	
Customer service skills	9	10	3	1	
Communication skills	6	10	8		
Literacy skills		2	20	2	
Numeracy skills		3	18	1	
Team working skills	5	17	5		
Problem solving skills	6	14	5		

Other (please specify):	1	1		1	
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9. If there is a change in the previous question, please state why you expect the change to occur.

Competition, liberalization, introduction of new technologies, higher quality of standards asked by customers, more responsibilities and autonomie, work group, new work 's organization,

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There are 4 particular issues in which the social partners are very interested: -

recruitment shortages

skills gaps in the workforce, and

training initiatives to support lifelong learning and sustained employment

redeployment/social plans to address restructuring

The following questions look first at recruitment, then at any problems with workforce skills and finally, lifelong learning and employability.

Skill Needs

Turning to the skill needs of your current workforce, please try to complete the questions below.

10. Would you say that a gap exists between the type of skills that your current employees have now and those they need to meet your current business objectives? Yes No

If you answered No to this question, please go to Question 30.

11. Please identify from the following list those specific skills which your company is lacking. For each skill, tick one of the 4 boxes to indicate how big the problem is.

Skill	Significant problem	Slight problem	No problem at all
Management skills	6	15	2
Technical skills	4	5	14
Computer literacy or knowledge of IT	4	13	5
Customer service skills	8	12	2
Communication skills	8	13	1
Literacy skills		5	16
Numeracy skills		2	17
Team working skills	6	13	1
Problem solving skills	5	12	3
Other (please specify):	1		

12. What are the major causes of any skills gap you are experiencing? Please tick as many possible.

Changes in work practices	18
Changes in services/products provided	14
Changes in processes, automation, technology	15
Greater emphasis on customer service	18
Lack of investment in/commitment to training	7
Lack of suitable training provision/external training expertise	7
Other(please specify)Market changes in Italy and abroad; lack of competencies in EU law. ...	7

The following 2 questions relate specifically to young people. We would like to find out how prepared they are for the professional world when leaving school or other education/training establishments.

13. Would you say that a gap exists between the type of skills that young entrants have now and those they need to meet your current business objectives? Yes No

14. Please indicate your perception of the skills strengths and weaknesses in new entrants to the industry under 21 years of age (school leavers).

	Very strong	Strong	Acceptable	Weak	Very weak
Verbal communication		8	12	1	
Written communication	1	2	9	9	
Numeracy		6	11	2	
Computers and IT	4	8	8	1	
Team work		8	5	7	
Problem solving	1	3	8	8	

Other (please specify):				3	1
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15. How many positions (apprenticeships) are offered to school leavers per year?

Was not possible to collect data for the whole sector.

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16. Are these part of a collective agreement or other?

There is a collective agreement only for a certain type of employment contract for school leavers.

NO = 11 YES = 8

17. Are apprenticeships part of your recruitment policy? Yes No

18. Please indicate how you are seeking to address your skills gap problem. Tick as many relevant boxes as appropriate (categories/rank as page 1).

	Pri or.
(Initial) Training and development	20
Retraining	14
Recruitment	18
Changing internal structures and practices	14
Out-sourcing	9
Other (please specify)	2

Elderly workers are vulnerable in restructuring processes. Are there retraining programmes that specifically address elderly workers? Yes No

Do these programmes lead to the development of transferable skills? Yes No

What do companies do to increase the participation of women in training?

Specific groups

Specific measures

3

Childcare

2

Other (please specify)

Specific training measures in accordance with guidelines given by law
(L. n.125/90).....

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4

Recruitment

19. Are there current job vacancies? Yes No

20. Have there been any job vacancies in your company over the last 12 months? Yes No

21. What impact are these ‘hard-to-fill’ vacancies having on your business? Please tick as many of the following accordingly:

Increased running costs due to overtime, subcontracting, temporary staff	12
Above average recruitment costs through advertising, use of agencies, etc	4
Loss of efficiency or increased wastage	2
Loss of quality in the service given to customers	4
Significant restrictions to business development activities	2
Loss of business or orders to competitors	
None of the above	7

22. What action are you taking in trying to fill these vacancies? Please tick as many of the following accordingly:

Advertising/advertising more widely	17
Using recruitment agencies/job centres	16
Just carrying on looking	4
Training existing workforce to fill vacancy	14
Seeking to obtain staff from other firms (head hunting)	9
Improving salary and other working conditions (such as providing child care to make work more attractive)	4
Changing internal structures and practices	9

Changing the nature of the job (more competency, autonomy, responsibility)	11
Using word of mouth	6
Using schools to recruit	13
Are these vacancies addressed between the employer and the trade union(s) (and/or workers' representatives e.g. work councils)?	13
Other actions	1

Life Long Learning

The following questions deal with the management and delivery of training in your company and qualification attainment within your workforce.

23. Is your company committed to developing the workforce? Yes No

Does your company have a specific training plan, either as part of the business plan or as a stand-alone document? Yes No

Is training and education addressed in the collective agreement and/or through a separate agreement? Yes No

If yes, what is regulated through the collective agreement:

Please tick where appropriate

Payment training?

Right to training?

Nr of days for training?

Personal training budget?

Other

.....
.....

24. Does your company have a dedicated training budget? Yes No

25. Has your company carried out a review of the training needs of your employees within the past year? Yes No

26. How many training days did your company deliver over the last twelve months? (Please include off-job training days only.) 2 TO 5 days/employee

27. What proportion of your total workforce received off-job training over the last 12 months? 2 to 100 %.....

28. Please indicate the types of training provided over the past 12 months. Tick as many boxes as possible.

Then, alongside the tick boxes, indicate where most training has taken place by ranking them 1, 2 and 3 etc, where 1 is your most frequently provided training.

Induction	16
Training in new technology	23	
Management training	21	
Customer service training	17	
Technical training	23	
Languages	18
Further education / Higher education	17	
Health and Safety	20	
Job Specific Training	17
Other (please specify)	4

The social partners now have a few important questions on lifelong learning and best practice examples of how this is encouraged and how employees make plans for their sustained employability.

29. How do you encourage employees to be motivated towards their continuing development?

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learning opportunities at more advanced levels.

The overall aims of this strategy are to develop active citizenship, employability, adaptability, social inclusion and individual fulfilment.

30. Does your company approve this above definition of Life Long Learning? What would you add or delete?

19 answers agree on the above definition.....
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31. Are there examples of good practice in Life Long Learning in your organisation that you would like to mention? (These could include vocational guidance, skill development, individualised training and/or coaching, training in new technologies etc.) Please also state aims of Life Long Learning and the means used!

Various exemples. and 8 without comments.

32. Is there additional recognition in your organisation in case of participation in Life Long Learning actions? If yes, what kind of recognition?

Recognised professional qualifications	Yes	18	No	4
Career evolution	Yes	18	No	4
Personal development	Yes	18	No	4

33. Is there an agreement between the social partners on Life Long Learning in your organisation? Yes No

34. How do you plan for the development of skills for future employment needs?
 Very various answers

35. State examples where Trade Union or employee representation has been involved in lifelong learning initiatives?

One example has been the project with the European Union and Regione Lazio 2000 – for acquiring competencies and methodologies relating to the management of continuous learning processes.

Very various answers.....

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Would you be prepared to discuss one or two good practice initiatives with a member of the social partners Lifelong Learning Working Group? Yes No

Social protection during changes with the company

36. During structural changes, are there parallel measures to aid personnel development or social protection?
(include measures with public support)

NOT APPLICABLE

Type of measure	Description of measure and type of support	Aimed at <i>all</i> employees	Only aimed at those affected by the changes
1. assistance in work-related mobility (internal retraining)		10	9
2. assistance in spatial mobility (transfer to another place)		6	9
3. reduction of weekly working hours		4	2
4. part-time work (reduction of fixed working hours)		6	3
5. transition to employment companies			3
6. incentive to terminate employment		6	9
7. early retirement		12	9
8. assistance in work-related mobility (retraining for external labour market)		5	6
9. other (e.g. sabbaticals, assistance for self-employment, outsourcing etc.)		8	8