I. Introduction

1. The human factor is an essential element in sustaining economic development because modern economies rely on increasingly sophisticated production processes and growing service sectors which, in turn, depend on a skilled (and adaptable) workforce. It is therefore the responsibility of all involved (governments, business and individuals) to ensure that the wealth-creating process is supported by each individual according to his or her ability. The continual involvement of the individual in this process is a challenge for all OECD Member States and will have considerable implications for the individual (both as an integrated participant in the labour market and as a citizen), for the enterprise and hence the economy, and for democratic society as a whole.

2. BIAC therefore welcomes the OECD's initiative to focus on lifelong learning, and to explore ways in which governments, individuals and the private sector can cooperate to ensure practical implementation and positive results. Notwithstanding other policy areas which remain crucial in promoting economic development, BIAC believes that education is one of the most important components of competitiveness, and, as such, is highly instrumental in ensuring that companies are performing efficiently in order to grow and create employment.

3. In this statement, we begin by outlining recent developments, which have occurred at the enterprise level and the consequent needs of enterprises in terms of skills. We then provide suggestions as to how education can be adapted to respond to these needs, with a particular focus on continuing education. Finally, we discuss how governments and the other actors involved can bring about these changes.

4. BIAC believes it is important that Member states adopt a common language so that there is a common understanding of loosely used terms such as "vocational", "general" and "higher" education. Problems with the use of single epithets are exacerbated with double terms such as "higher vocational" education. For the sake of clarity, we define below the terminology used in this paper.

- initial education = all education up to and including a first post-school (i.e. typically the first 10-12 years of education) qualification
- general education = initial education, traditional school-based, predominantly academic
- vocational education = initial education, either school-based or through apprenticeship, designed to lead to a particular chosen vocation
- higher education = education beyond the first post-school qualification
• continuing education = all education or training received after initial (and/or higher) education.

II. Recent Developments in Enterprises

5. It is essential for the education system to be in tune with developments in the labour market and, in collaboration with governments and business, to ensure that these developments are "translated" to all stages of the education process.

6. We observe important changes in business, which have an impact on all types of organisations. Most of these changes are closely related to the use of new technologies in production, management, logistics and organisation. In addition, companies continue to move across national boundaries in search of innovation and competitive advantage, so that labour markets internationally are likely to become more, rather than less, flexible. Indeed, flexible labour markets have become the rule rather than the exception in virtually all OECD Member states, as a combined result of external and internal environmental factors such as globalisation of markets, new information and communication technologies, economic restructuring, labour market reforms and societal changes which are both a cause and effect of these developments. Some examples are:

- Job profiles are more dynamic and tend to cover a more diverse range of skills.
- Individuals tend to occupy several functions during their career - inter and intra-firm mobility is the order of the day.
- Flexible contracts are more common (fixed term, part-time, etc.).
- New technology is used at almost all levels (communications, quality control, logistics, administration, etc.).
- Technology is allowing more flexibility in terms of working hours (e.g. adaptable shifts) and location (e.g. working from home via fax/modem) (although this differs considerably between sectors, professions and countries).
- Organisations have become less hierarchical with a heavier emphasis on teamwork and individual responsibility.
- In many Member states, the population, and hence the workforce, is ageing.

7. In addition, many companies are making a distinction between their core and non-core staff. While this is generally welcomed by employers as providing improvements both in productivity and market responsiveness, and enabling them to deploy their workforce in the most efficient way, it is accompanied by a decline in job security. Most people are risk averse, and do not like uncertainty and change. A flexible labour market is viewed, therefore, by many as making life less comfortable for individuals and sometimes having adverse social consequences. Many people are unable to see, or unwilling to acknowledge, that flexible labour markets allow, and indeed encourage, people to make the most of their skills and experience. Add to this dimension the fast changing high-tech, knowledge-intensive world which is now the reality for most enterprises, and one has a challenging environment in which to develop the concept of lifelong learning.

The Education Chain - "Seamless" Learning

8. An important consequence of these trends is that lifelong learning has become an inevitable and necessary extension of youth education as the best response to the new realities of working life. The concept of lifelong learning implies an interrelation between all the various stages of education. For example, when the pace of change demands retraining courses tuned to the specific needs of the moment, such retraining will be easier if initial education has laid the foundations with a broad base
of knowledge and skills. Thus, each stage in the education process represents a link in the chain of lifelong learning (see ERT publication on Lifelong Learning, 1995), and the actors involved can no longer afford to concern themselves solely with one particular stage.

9. This concept is not dissimilar to the more recent notion of "seamlessness" in the education system, already in the implementation phase in New Zealand. "Seamless" learning goes beyond the linked approach to sectors and phases within the education system, to a concept which places far less importance on where and how learning takes place, and which concentrates rather on the outcomes and standards achieved. The model takes account of rapidly advancing information and delivery technologies, the consequent reduction in importance of geographical boundaries, and the increasingly mobile and global labour market. It makes no particular predictions about the future, but is flexible enough for individuals to make adaptations to all sorts of environmental pressures.

(See Annex I: Case Study: New Zealand - The Seamless Education System.)

III. Initial Education

10. Many of the recent developments described above, such as those related to new technologies, logistics, new forms of management and organisation, are difficult to merely transpose into the curricula. In fact, these new trends require a more generic form of initial education designed to encourage the development of a broad base of competences and skills which can subsequently be built on and adapted, rather than the development of specific skills to match punctual needs of the market.

11. There are several reasons for this. Firstly, while initial and higher education remain of paramount importance, they can no longer guarantee a job and in some cases are little more than an entry-ticket to the labour market. This is a combined result of lower rates of economic growth and mass enrolment in education. In addition, the traditional model involving a direct relation between initial qualifications and specific jobs is no longer valid (if, indeed, it ever was). Careers today are far less predictable and require more flexibility on the part of the employee.

12. Therefore, generic skills are essential as a basis for future employment and learning requirements, because rapidly changing technologies and markets make the prediction of specific skills needs almost impossible. Skills such as learning to learn, communication, information handling, problem solving, numeracy, technology and computer skills, innovation, creativity and entrepreneurship all have some measure of transfer value across education and work contexts and across work places. They will increase the individual's chances of success on the labour market, will equip the individual to face change with confidence, and will help people to continue to learn and to make informed choices throughout their working (and private) lives.

13. In order to prepare the individual adequately for today's realities, three aspects of education should be considered: the system, the content and the teaching process.

A. The System

14. Firstly, the initial education system should enable each individual to obtain the highest possible qualification according to his or her ability. For this reason, initial education should maintain well-differentiated subsystems for vocational and higher education, while allowing for more movement between tracks, as many of the models in place today are too inflexible. While the two subsystems of initial education, general and vocational, need to establish closer ties in order to permit
such movement and to overcome the status gap which exists in many Member states, it is also essential that they retain their respective characteristics, as each responds to different needs of the labour market and is designed to suit different interests and learning styles.

15. The education system should also be able to respond to all levels of competence. As we stressed in an earlier BIAC statement, special attention for children with learning difficulties and preventing dropouts (or under-achievers) are as important as challenging average and gifted children. While it is true that the engine of innovation and growth is fuelled by a highly educated workforce, the quality of the education received by those educated to lower or intermediate levels cannot be overlooked. On the contrary: it is impossible to run a modern organisation without people at all levels with broad skills, people who can work as a team, understand the process and use modern technology as a tool. For the application and diffusion of innovation, the quality of education at the lower and intermediate levels is as crucial as that of the R&D specialist educated at university.

16. It is often unclear what standards formal qualifications meet and exactly what skills and competences are deemed to have been acquired. Setting national standards, developing a transparent qualification structure (validated by the labour market), and enhancing internal and external evaluation procedures are necessary in order to improve the system. Clear standards are also a necessary condition for seamless learning. Standards should be developed and updated on a regular basis in co-operation with experts from business and industry. In addition, while education systems remain national, standards should reflect global trends as far as possible.

17. A transparent framework of standards for vocational qualifications often takes the form of a modular system of certificates. However, this should not be confused with an incoherent and fragmented teaching process. Especially in initial education, it is important to take into account the attitudes, the pride associated with full mastery of the profession. This requires an integrated approach and a balanced and coherent curriculum along the lines of the "triad system".

18. The system itself should be structured in such a way as to keep options open as long as possible. For example, the final qualification obtainable from secondary education should cover a wide range of subjects and, vocational education courses should not be too specialised and should prepare for a wide range of jobs. Higher education courses should be structured so as to include a number of "minors" to complement the "major" subject studied.

19. Again regarding higher education, in certain countries the delineation between universities and colleges for higher vocational education is blurred while in others, the separation is very much apparent. In BIAC’s view, while there are clearly two forms of higher education: academic-based and professional-based, the challenge for each is to complement one another effectively, i.e. universities must respond to the practical needs of society and higher vocational institutions must apply and implement the academic findings which originate in the universities. This synergy will generate new products, new industrial processes and new services, which, in turn, will lead to job opportunities.

20. Some argue that the need for flexibility is best served by general, as opposed to vocational, education. This argument may also be one of the reasons for the perceived higher status of general education. Indeed, in theory, general education does keep all options open. However, young job seekers are finding that it is increasingly difficult to find an entry, a starting point, to the labour market. Although vocational studies prepare for a specific sector or profession, and therefore somewhat limit the scope, they also open a gateway which is not readily available to applicants without the specific vocational qualifications to do the job. Given the traditional tendency of students to opt for the "noble academic courses", it is the task of the education system, governments and
business alike, to increase the status of higher vocational education, highlighting its importance and the career opportunities to which it can lead.

21. Moreover, it would be a mistake to conclude that the need for flexibility and uncertainty about career paths implies that the choice of a particular study is irrelevant. Statistics show that opportunities on the labour market vary considerably according to the type of study successfully followed. It is true that current recruitment practices place a great deal of importance on the generic skills mentioned earlier. However, to secure a first job, the applicant must also bring in added value to the firm in terms of knowledge and skills.

22. Given the fact that choices made throughout the education process will determine the areas in the labour market for which an initial qualification is relevant, the system must improve its ability to provide study and career guidance (i.e. in collaboration with teachers and employers). The system should help individuals be aware that their choices and personal investment throughout the education process will have long term consequences for their employability. An important notion to bear in mind is that of "option awareness", i.e. individuals should constantly be made aware of which options remain open to them and which will no longer be available after certain choices have been made.

23. As is the case on any market, the ability to innovate and be creative leads to more competition, a better insight into consumer needs and, ultimately, the survival of those offering the best value for money. BIAC believes that more opportunity for initiative and competition should exist within the education system. This may be achieved by giving more autonomy to schools and institutions within the framework of well-defined standards, which are to be attained.

B. The Content

24. The basic building block of a lifelong learning strategy is to ensure that the core generic and transferable skills, which not only provide the essential foundation for managing one's life and further learning but also contribute to one's employability, are embedded in the curriculum to the extent that they are assessed and reported on. These skills need to be incorporated specifically into learning programmes.

25. General education should therefore include "new basics" in the curricula, such as computer literacy, economics, science and technology. Awareness and motivation for these "new basics" should be encouraged at an early stage. Key skills such as communication, team work, ethics, problem solving, information handling, and learning to learn should be fostered as early on as possible by the system.

26. In addition to these key skills, and consonant with the idea of lifelong learning, employers expect young people to be economically literate, and understand the business and industrial basis of the society in which they operate. Such people are most likely to contribute to the generation of wealth and economic and job growth, and to become positive and engaged employees.

27. In vocational education, a "triad system" should be developed, as described by the ERT (1995, page 22), whereby the following pathways run parallel:

- "Continuing General Education, to ensure flexibility and future adaptability to change"
- "acquiring the theoretical knowledge, necessary for the application in the career chosen"
- "acquiring hands on work experience through: special training workshops; traineeships in industry, use of simulator systems and sophisticated software"
This reflects the increasing convergence of general and vocational training discussed at the VOTEC Conference (OECD, 1994).

C. The Teaching Process

28. The key to successfully adapting the education system to meet these new demands will be the teaching process itself. Indeed, as mentioned above, many of the new skills required by companies cannot simply be tacked on to the curricula, nor "taught" through traditional methods. There are several areas in which new teaching methods will need to be developed and for which teachers will need training in order to take on their new role. This will entail a significant professional change for teachers which is often underestimated in education policy, and will foster a new attitude among students who will no longer be mere consumers of education but will actively participate in and, partly self-direct, take greater responsibility for their own learning processes.

29. Firstly, teachers should take responsibility for modelling and fostering aptitudes such as communication, teamwork, and problem solving, along with concepts such as personal responsibility and discipline, service to the community, and respect for cultural differences. Interpersonal skills required for successful managers/leaders should also be instilled. Motivating students to continue learning throughout their lives should be expressed as a basic curriculum principle, and so should the desirability of teaching students how to think.

30. Another important area is technology. As hard and software become cheaper and more accessible, new forms of educational practice are available which can both enhance traditional modules and assist in remedial teaching. The richness of new learning material available through technology should be exploited to the full. This will only be possible, however, if a much greater investment is made in the teachers themselves (i.e. training).

31. These areas are important in order to produce not only knowledge-competent but socially-competent individuals who are equipped to use all kinds of resources (both data and people) in the course of their lifelong learning.

IV. Continuing Education

32. Basically, continuing education and training are a specific response to particular needs of the individual worker as a result of developments and strategies of the company. This calls for a "bottom up" approach in which the training is planned as close to the actual needs of the working process as possible.

33. There is no doubt that companies must invest in training in order to remain competitive. Companies should create the necessary conditions to facilitate access to training. However, BIAC would like to stress that individuals are also responsible for updating their skills and competences in order to remain employable. Continuing training should be a joint investment by the company and the individual. For job-related training this may imply that employees invest their time. A number of companies encourage their employees' individual initiatives to take more general courses that enhance career prospects in general and are not necessarily directly related to the present job. In such cases cost sharing is also appropriate. In addition, new qualifications obtained through further training will not necessarily lead to promotion or wage increases, since a good return on the joint company-individual investment should be that the individual remains productive and employable in an ever-evolving organisation.
34. In former days of a fairly stable labour market and stable job structures, further training was more often linked to a particular career step. It should be realised that in the present context training is a necessity for all, if only to keep up with the changes in the present job. Lifelong learning does not guarantee lifelong employment, but equips the individual with up-to-date skills, necessary to face change with confidence rather than hostility. Well-trained employees are the catalysts for change and innovation.

35. In order to offer access to further training for all employees and bearing in mind the "bottom up" principle mentioned earlier, two important principles are:

   a) Further training should be considered an important strategic tool of management. At all management levels, investment in training should be a regular element of planning and evaluation;
   b) It should also be a regular element of evaluation of job performance, to discuss training needs with the employee, either to compensate existing shortcomings or to anticipate new developments.

(See Annex II: Learning Business Checklist - Confederation of British Industry.)

36. Special attention is needed for the training of the lower skilled. On the one hand, it should be a goal of initial education to ensure that school-leavers will have at least a vocational qualification when they enter the labour market. On the other hand, it is a reality that a part of the labour force does not meet this criterion. The training of these employees may even include "basics" such as arithmetic, language, and elementary computer literacy. BIAC welcomes the initiatives in some Member states (e.g., the United Kingdom) to provide training credits for the lower skilled to support employers in efforts to keep these employees up-to-date with new requirements.

37. Although further training and initial education are different links of the education chain, they should not operate in isolation. For initial education and further training to interrelate productively in accordance with the "chain" or "seamless" concept of lifelong learning, the following goals must first be achieved:

   • Clear national standards for initial qualifications developed in collaboration with experts from business and industry. Once such standards have been elaborated, the inadequacies of "traditional" qualifications can be identified.

   • The availability of continuing education "adult courses", taking into account the framework of qualifications offered by both public educational institutions (at all levels) and private providers. Companies using the facilities of the public education institutions for their employees would gain access to valuable training, while the education institutions would form closer ties with companies and be more aware of their "clients'" needs. Of course, the involvement of public education institutions in the training market should take place under normal market conditions.

   • Transparent qualification structures, whereby recognition of work experience complements formal training qualifications.

38. The point made earlier regarding "option awareness" in initial education (see paragraph 21) is also valid for continuing education. The motivation to pursue continuing education should be to remain employable and to broaden career options, within a company as well as in the labour market at large.
39. It is interesting to note that most companies have decentralised the responsibility for training which results in a better match between changes on the shop floor and the training courses ("just in time learning"). This development again highlights the need for broad initial qualifications: it will become more and more difficult to compensate for shortcomings in general skills and competences as training becomes more specifically tailored to a particular working environment. However, while it is true that continued education is becoming more important, it would be a serious mistake to conclude that initial education is somehow less important and that it is sufficient to adapt through lifelong learning. On the contrary, there is clear evidence that initial education is a multiplier, with long term consequences for future learning, i.e. the better the initial education, the more willing the individuals will be to participate in further and continuing education. Under-investment in initial education will only exacerbate the problems of the less educated during the course of their working careers.

V. The Role of Governments and Other Actors

40. The main responsibility for the training of the employed lies with the company and the employee him/herself. Nevertheless, for lifelong learning to be effective, the government also has an important role to play both by providing initial education as the foundation for lifelong learning and in supporting further training (discussed further below).

41. Each of the three actors: the employer, the employee and the government has a role to play and a responsibility for supporting lifelong learning. The aim should be for the actors to engage in a form of "partnership". By this, BIAC does not necessarily mean a set of formal arrangements, but rather a consensus about priorities and a willingness to cooperate. The concrete forms of this cooperation may vary according to national law and tradition. In some cases, formal arrangements may result from this process, if partners freely opt for this.

42. What "partnerships" certainly should not involve is the shifting of responsibilities and asking for trade-offs that are simply impossible. For example, "partnerships" should not be "new speak" for a withdrawal of the government's responsibility for education. Neither should "partnerships" imply a solemn agreement, whereby lifelong learning will be a guarantee for lifelong employment.

43. The OECD issues paper suggests that public investment should focus on general education and on groups at risk, while more private investment should be made in vocational and higher education. BIAC strongly opposes any withdrawal by government from their responsibilities for these sectors. In response to the OECD project on Access, Participation and Equity (1993), BIAC stated that, in order to enhance social cohesion and prevent exclusion as well as to provide the foundations for lifelong learning, it is essential that governments maintain a high level of investment in all sectors of education including vocational education and higher education.

44. Initial education has a strong multiplier effect: the more young people get out of their initial education, the more likely they are to participate in continued training and the better their results will be. It should be clear that this is not the result of any hidden exclusion measures towards the lower skilled, but merely reflects the educational reality that, the higher the level already achieved, the wider the scope for further training. Therefore, governments should provide broad access to a well-differentiated system of education (as described earlier) to enable young people to develop all their talents and capacities. In addition, it is important that governments retain responsibility for ensuring broad access, setting national standards, safeguarding adequate challenges for gifted children and paying special attention to groups at risk. Indeed, it should be a high priority to prevent young people from leaving school without at least a vocational qualification.
45. As OECD studies indicate, there is a correlation between the level of innovation and competitiveness, the level of education of the workforce and the wage level. Also this makes BIAC appeal to governments to prioritise their investment in initial education.

46. As OECD statistics show (Education at a Glance 1995), public investment is, in fact, much higher in higher education than in the primary/secondary sector. While this correlates with the costly aspects of higher education such as R&D expenditure in universities, it is nevertheless reasonable in this instance to require a higher input from students. Indeed, the higher average wage earned by graduates from higher education justifies a higher investment on their part, as compared to secondary level education. This could also stimulate students to choose study paths leading to jobs which contribute much to economic development since they will earn a higher return on their "investment".

47. The fact that partnerships can flourish without formal arrangements can be illustrated by the many ways in which business and industry are supporting initial education. In vocational education there is a long tradition of partnerships, of which the apprenticeship system is an outstanding example. However, school-based systems also cooperate with companies, often on a more informal basis, to provide students with work experience. Companies cooperate with universities in the area of research and development and experts from business and industry are active as advisers or guest teachers in both universities and vocational colleges.

(See Annex III: The Fourth Wave - US Conference Board.)

48. In many countries the company-individual investment is supported by local or regional government structures. Where such structures exist, it is essential that the planning and decision-making processes remain as close to the working environment as possible (i.e. the company, the unit).

(See Annex IV: Norfolk Small Business Initiative and Glaxo - United Kingdom.)

49. Examples of partnerships between general education and business/industry are more recent. They reflect business and industry's concern that students know very little about the world of work and the economic process. Images that exist with teachers and parents are often completely outdated. A second concern is that young people tend to lose interest in science and technology, regardless of the fact that modern life would be impossible without them. In several countries therefore, companies support the orientation of young people, for example by providing guest teachers, company visits, sponsoring science festivals, junior enterprises, etc. (e.g. Schule-Wirtschaft group, Germany; Economic Weeks, Switzerland; Science and Technology Week, The Netherlands).

50. Among the more formal arrangements for partnerships with respect to lifelong learning are those that are made within a branch organisation for their membership or in the framework of collective bargaining with the unions. First of all it should be clear that tradition and practice in this area are (and will be) very different between OECD Member states. Second, there is a tension between the concept of collective arrangements and the need for the planning of training to be a "bottom up" process, geared to the job-related training needs of the individual and of the company. Nevertheless, BIAC considers that more formal agreements, such as collective arrangements between employers and employees (at company or branch level) can be a relevant form of partnership, when two important conditions are fulfilled:

- such arrangements should never be enforced by law, but should be based on the free engagement of the organisations involved;
the arrangements should be flexible and should leave the responsibility for the planning of the training with the company.

**Example: The French System**

51. In discussions on lifelong learning, reference is often made to the French system. Regardless of certain questionable aspects, such as the uniformity of the levy for any branch or profession, it is interesting to note that, to date, this system meets the two criteria. This law is in fact the translation of an agreement at national level between the confederations of employers and trade unions respectively. Secondly, within the framework of its funding obligation, the company makes its own decisions regarding the choice of training activities. They system however, is now under debate and there are proposals to shift the balance to a more centralised and externally run scheme. This would conflict with the condition that the responsibility for the planning should be left with the company.

52. In some countries there are also local/regional arrangements and agencies, financed by the government (e.g. Training Enterprise Councils in the U.K.) or by international programmes (e.g. the European Social Fund). In this case also, it is essential that the planning and decision making process remain as close to the working environment as possible (i.e. the company, the unit).

53. Being directly linked with the core business and the strategy of the company, the decision on training plans is a management prerogative. At the same time it is evident that the specific content of training and the practical organisation will always be attuned to the employee and his/her team. Moreover, in many countries there are workers' councils at company level and these councils can contribute to such decisions by consultation.

54. The necessarily decentralised and "bottom up" nature of continuing education and training does not conflict with the supporting role of government. Government can use many instruments to create incentives and support, to create a good climate for lifelong learning, without rigid and centralised prescriptions. For example:

- tax benefits; if there are special benefits for investment, then investment in training should be included;
- training credits or training subsidies for the less qualified;
- cheap access to distance learning facilities;
- support for employers who offer places in the apprenticeship system.

As mentioned in the OECD Jobs Study, more coherence between the different structural policies should be a priority and, in this case, could foster investment in training.

55. Even after the intensive and concerted action of all the actors, it is not realistic to expect that lifelong learning alone will solve all the problems of the labour market. Especially the lower skilled will remain a group at risk. The market for low-skilled work may be enlarged through other structural policies (tax policy, labour market and social security policies) to make low-skilled services (now too expensive) more marketable.

56. The training of the unemployed is a public responsibility. Here again a decentralised approach is necessary: real employment options should be monitored at local and regional levels to offer an insight into what kind of training really contributes to employability. In several countries both sides of industry are involved, in an advisory or even a decision-making capacity, in the planning of training within the framework of the public employment service.
VI. Conclusion

57. BIAC believes that, notwithstanding other policy areas, education is one of the most important components of competitiveness, and that an efficient education system adapted to the needs of the labour market is crucial to continued economic growth and increased employment. In light of the foregoing analysis, it is clear that to prepare people adequately for entry onto the labour market and to ensure that they possess the necessary skills to remain employable throughout their lives, a number of reforms are needed in terms of the content of education, the systems themselves, and the teaching processes. Most importantly, and in light of today's realities, education can no longer be considered as a preliminary stage to employment, but as a continuous, lifelong process whereby individuals acquire skills and knowledge on an ongoing basis and are thus adequately equipped for working life, no matter how swift the pace of change.