

MEMORANDUM ON PRODUCTIVITY, INNOVATION, QUALITY OF WORKING LIFE AND EMPLOYMENT

Brussels, January 1999

1. PURPOSE OF THE MEMORANDUM

The purpose of this Memorandum is to give a more comprehensive meaning to the concept of productivity in relationship to three other key issues in current European society - innovation, quality of working life and employment - with a view to reaching a common understanding among the partners cooperating with member organisations of the EANPC and their own staff.

The Memorandum is intended to contribute to co-ordinating the work of the individual member organisations and enhance co-operation within the EANPC as such. National focal activities can then be better set within economic and employment policy overall and discussed against the background of experiences which are specific to the individual countries. So by stimulating and intensifying dialogue within the EANPC and other co-operation partners, the Memorandum should lead to joint actions.

The Memorandum is based on internal discussions on the goals and areas of concern of the EANPC's member organisations, the proceedings of the bi-annual meetings of the EANPC's Managing Board, those of the biennial International Productivity Symposia as well as a selection of important economic policy material. After half a century of European productivity cooperation following the launch of Marshall Aid in 1948, it sets out the fundamentals for fostering productivity into the new Millenium, thereby serving as a basic paper for cooperation among member organisations.

The approach used is successively: to define the range of meanings of the word 'productivity'; to outline the contributing factors; to give examples of how productivity development has been addressed with good or bad results for society as a whole; and to express for each contributing factor what the EANPC can do.

The challenge of the 21st Century

At the dawn of the 21st Century, all countries are confronted with a constantly changing set of challenges. These, to name the most significant, are: the globalisation of the economy for both services and goods; the shift from mass production to customised variety and quality production, with greater emphasis on capital productivity and "instant" availability; the shift in competitiveness from cost factors to innovation and customisation; the advent of the information society and the associated importance of knowledge management; and the growth of both unemployment and new forms of employment, especially for low-skilled workers.

Thus enterprises and organisations-public as well as private, those producing services as well as goods-need to harness all the resources available to them in the design and continuous redesign of organisations which seek-within the parameters of the 'European model'-a continuously changing balance between all types of flexibility and security, in the interests of both the organisation and the individual. Only through the development of partnerships and cooperative approaches to these ends will it be possible to smoothly rebalance work and organisation for the benefit of all stakeholders.

2. THE EANPC

The European Association of National Productivity Centres-EANPC-was established in 1966. Its seat is in Brussels. It is an association of national bi- and tri-partite bodies which contribute, each in its own country, to the enhancement of productivity, innovation, the quality of working life (QWL) and employment within companies and the economy overall.

As a pan-European organisation, the EANPC is open to all European countries, not being limited to the countries of the European Union. It is a part of, and actively contributes to, the world-wide network of productivity and QWL organisations. Through its support of productivity enhancement, the EANPC and its national member organisations contribute to improving living and working conditions. Their work supports

economic and social development on the national and international levels in the interest of fair competition.

As a European body, the EANPC supports other international organisations such as the ILO, the OECD and the European Commission, whereas the national members buttress, each in its own country, the state and enterprises in order to promote economic growth, innovation, better working conditions and employment.

To underpin the development of productivity, the EANPC organises and contributes to exchanges of experiences between member organisations, potential members and other organisations world-wide. It collects and collates research results on the factors influencing productivity and their impact, stimulates the transfer of know-how from research to economic policy and enterprises and acts as a partner for various national bodies and organisations.

The Memorandum sets out the goals of the member organisations and their prime areas of concern. It thus enables potential partners to see those areas in which co-operation is possible. It presents, under the "umbrella" of productivity development, various economic policy and labour policy facts and integrates key areas of concern into a common "productivity house".

The word "productivity" is used in this Memorandum in a very broad meaning: making continuously better use of resources to contribute to growth, innovation and employment; it is not seen just as a statistical ratio. For this reason the individual contributing factors reflect also different productivity concepts.

3. PRODUCTIVITY

Productivity is an expression of how efficiently effective goods and services (i.e. goods and services which are demanded by users) are being produced. Thus, its key characteristics are that it is expressed in physical or economic units-in quantities or values (money)-based on measurements which are made at different levels: on the level of the economy overall, that of a sector or branch of the economy and that of the enterprise and its individual plants/units.

The measurement is usually made in terms of the volume of labour used in relation to the output produced. For within enterprises, 'labour' (meaning 'human beings at work') tends to be either the single most important factor of production or that which is easiest to measure (in terms of persons employed or hours worked). Within the enterprise, technological and organisational changes serve to improve the effectiveness and the efficiency of the factor labour, without the outcome having been produced by labour working harder or longer. But enhanced performance is certainly achieved if labour works 'smarter', drawing on the workforce's unique experience of the production process and understanding of the needs of the customer-both intermediate and end consumer of the goods/service in question.

'Labour productivity' is usually a proxy for 'overall productivity' or 'total factor productivity'. Total factor productivity is a weighted expression of how well all the factors contributing to productivity development (labour, capital, resources, etc) are marshalled, enhanced and managed to produce the output demanded. Labour productivity does not, as such, measure the specific contributions of labour as a single factor of production. Rather, it reflects the joint efforts of many influences, including new technology, capital investment, capacity utilisation, energy use, and managerial skills, as well as the skills and efforts of the workforce.

Productivity has been-and remains-the main component of economic growth: it is the "residual" element that still has not been explained once all the increases in the amounts of the factors of production are accounted for. It is enhanced by substituting capital for labour, or 'taking the labour out of work'. This has been continuously taking place since the beginning of the Industrial Revolution: labour intensive processes of producing materials, transportation, information and leisure, for instance, have all been substituted by capital-intensive processes using new machinery and devices. These drastically reduce the number of workers needed in the production processes, but through the additional wealth generated new demands for goods and services are opened up, thereby increasing employment elsewhere. At the same time, the continuous drive to make better use of labour-both as 'brawn-power' and 'brain-power'-generates new employment opportunities, at least for the qualified and healthy members of the workforce who are able to cope with change.

The factors of production are not limited to the traditional 'labour' (or 'human resources'), capital (both money and 'plant and machinery') and raw materials, but increasingly cover time, space and all resources of the environment. Hence there is the emergence of new concepts such as 'green productivity', trying to ensure that the benefits of productivity development for the present generation will not be detrimental for the generations to come.

On the macro-economic level, productivity on the one hand influences the use of economic resources in order to achieve better results and, on the other, is also the result of the performance process. But all approaches to developing productivity come up against limits and can start bringing about just the opposite of what is being striven for. Thus, at a specific point in time, production can become isolated and alienated from society-through automated factories, excessively lean organisations or environmentally doubtful processes-causing difficulties in equitably distributing the value added. The net outcome can be that productivity development grinds to a halt with a deteriorating infrastructure, a lack of skills, strikes and social upheaval. Thus, productivity is not a self-perpetuating, value-free process, but rather one which requires some monitoring and, at least at times, management and intervention at various levels. Productivity implies taking a longer term perspective than that of profitability, a concept with which it is intimately, but complexly, associated. Profitability clearly has a productivity component, but it is strongly influenced by the prices a company pays for its inputs and receives for its outputs. If a company can recover more than the cost of its inputs from rising prices for its outputs, its profitability can rise even in times when its productivity can be falling (the so-called 'price recovery factor'). Thus, the key characteristics of productivity at the enterprise level are that it is expressed in physical units, in quantities; at the level of the branch, sector and economy overall economic units must be used which take account both of deflated money and purchasing power parities, i.e. the conversion of different currencies.

Similar to its association with profitability, productivity is a significant component of competitiveness, the level of which is also determined by the prevailing national level of prices and costs. However, unlike productivity, these costs and prices are to all intents and purposes outside the influence of the individual enterprise. Productivity does not depend on monetary fluctuations which can lead to windfall gains (and losses) by intermediaries and speculators in future developments; rather, it requires perseverance, being a continuous process of doing things better today than yesterday and tomorrow better than today. And the inevitable driver behind this process is 'competition' in its many forms.

The EANPC and its members strive to pursue a holistic concept of productivity. The input side covers not only the volume of labour but the quality and quantity of all resources-including the natural, infrastructural and organisational-which enterprises use to achieve their results. In this way a whole range of options are opened up for the efficient design of performance processes.

The approach of the EANPC and its members covers the whole gamut of measures for fostering productivity focusing on the 'human factor'. Measures of particular importance include giving more responsibility to employees at the workplace, providing work that sustains health, designing workplaces which require skills and organisations that prosper on individual and collective learning, critically monitoring and using new understanding and knowledge, etc. In other words, it means taking the 'high road' to enhanced performance-improving the quality of the factors of production and the ways in which they are used, having the medium and long term development of the enterprise in mind-rather than the 'low road' of unthinkingly economising on the use of the factors of production for the benefit of short-term profit. A broad approach is also taken for recording the results of performance. It is not just figures for turnover, profits and yields which are important, but also the societal benefit of the results from the performance processes, including the benefits for employment, improving working conditions and sustainable development within a shrinking world.

4. CONTRIBUTING FACTORS

As already indicated, a wide variety of factors contribute to productivity development. It is in fact impossible to state, within even broad bands, the relative impacts of these contributing factors. However, all the following contributing factors are important, each interacting with the others, ensuring that productivity is a holistic concept in which changes in one domain have, inevitably though not always predictably nor positively, repercussions in all others.



4.1 Economic growth

Expressed succinctly, economic growth is a state in which the amount of money available for private and public spending is increasing. Experience shows that the positive development of society depends on economic growth.

Through their macro-economic policies, governments play a key role in fostering economic growth. These policies always need to be backed up by appropriate micro-economic initiatives (private, in the absence of public) to develop productivity. The dynamics of the economic process lead, through thriving enterprises, to the overall development of society and the economy; however, there is no automatic mechanism ensuring a balance between economic sectors and regions in the wake of structural change. One of the general tasks of economic policy is to try to avoid-or at least alleviate-the deleterious consequences of structural change. If this is not achieved, problems arise for the further development of the economy and society. This is the situation in all contemporary societies, representing a challenge for economic and productivity policy. Since most national economies are open systems, economic growth and structural change are not just influenced by the national input structures but also by the global economic situation.

By means of international exchanges of experience, the EANPC is endeavouring to understand and examine the consequences of growth and structural change within member countries and to help members tackle their national tasks. Member organisations make their knowledge available to enterprises and to economic policy-makers. Through their focus on productivity, they contribute to economic growth in ensuring a dynamic equilibrium between the profit-driven demands of individual enterprises and the more global needs of the constituent regions and society overall. For should this equilibrium be seriously disturbed, the development of productivity and growth will be impeded.

EANPC member organisations contribute, at different times and in different ways through government initiatives, to the development of economic growth, helping to raise income and increase economic and social resources which can be invested for the general development of society.

As experts in the field of productivity and economic development, member organisations can, each in its own country, offer the state and enterprises support within the framework of a 'high road' to economic policy and productivity policy which emphasises the quality and innovation of the outputs and processes, rather than just cost-cutting on the side of the inputs.

4.2 Competition and quality

Economic competition is the driving force behind the development of productivity and growth as every enterprise strives to enhance its position on the sales and procurement markets. On the other hand, strong productivity increases and economic growth intensify competition. Nor is it just enterprises but also national economies which compete with one another.

In economic theory enterprises and economies are presumed to be confronted with equal competitive conditions. In the real world, competitive conditions differ very much from one national economy to another and among individual enterprises. Thus, for instance, circumstances are clearly not equal as regards natural resources, the economic and societal infrastructure and the size and qualitative structures of the workforce.

Moreover, differences in size between enterprises and national economies have, at least until recently, been seen to represent unequal competitive conditions. Certainly, large enterprises can bring to bear a completely different market power on the procurement and sales markets; and because of their size, they often draw on other resources for coping with temporary crises than are available to smaller firms. Similarly, developed economies with large domestic markets and strong positions in foreign markets might be better equipped to withstand competitive pressures than smaller economies. But Europe now has a nearly complete 'common market' of some 330 million consumers. And the fact that new (small) firms create the bulk of jobs has led to a growing realisation that countries' futures will be determined not by size but by enterprise and entrepreneurship; this in turn has brought to the fore the links between productivity and entrepreneurship.

Although costs remain significant in determining the outcome of competition, 'quality' in all its aspects continues to assume ever growing importance. For quality is defined as a product or service's precise 'fitness for use' and its design customised to meet the needs of the client over its total life-span. These and the associated lower operating costs of getting things right, first time-are far more important to the discerning purchaser than the initial cost. In fact, 'productivity' and 'quality' are two sides of the same coin which, though sometimes looking different, are inseparable in the long run. Since it stresses customer satisfaction, enhanced quality is likely to enable sales and production volumes to be increased, thus facilitating productivity increases.

Quality is also concerned with the elimination of waste, before, during and after the consumption of a good or service. This forcefully contributes to improving the productivity of the production process in ways which are environmentally sustainable. Productivity without quality is as meaningless as quality without productivity.

EANPC member organisations contribute both on the level of their national economies as well as that of the individual enterprise to reducing competitive inequalities through actions to empower small and medium-sized companies (SMEs). Thus, they make their knowledge of technological progress, managerial concepts, learning, etc. available to SMEs. As partners of state-supported programmes for SMEs, they provide help for self-help. In this way they can optimise the search and information behaviour of SMEs as a precondition for corporate decision-making. Moreover, in various business areas they organise and accompany co-operation between enterprises and in this way contribute to SMEs' economies of scale.

On the level of national economies, EANPC member organisations are partners in implementing economic policy which, in line with the subsidiarity principle, strives to reduce the unequal conditions

between national economies and their enterprises. By exchanging experience, member organisations collect information which can then be adapted for the national economy in order to even out competitive disadvantages through state programmes. In this way experiences which have made other enterprises and countries competitive and strong can be adapted for their own activities. But information can also be reappraised to avoid the mistakes which others have made. Through this type of work, EANPC member organisations contribute to fostering fair competition in accordance with the conditions of market economies.

4.3 Innovation and technology

Innovation - as a reaction to competition-is the dynamic element of production and growth. Without innovation, further development by enterprises, the economy overall and society is stymied; without innovation there are also no really sustainable productivity developments.

Innovation is driven by competition and is strengthened by creativity. Successful innovation is mostly market-driven, but successful technology-push innovation also depends on the market. Technology is one of the main contributing factors to productivity development; but on its own it does not make the enterprise or organisation competitive. Indeed, without carefully considering and acting in concertation with the 'human factor', the adoption of new technology in innovation is doomed to failure. Yet many organisations underestimate the need for participative preparation and for training to ensure that technological change within the organisation is smooth from both the economic and safety and health viewpoints.

The potential of technology to stimulate innovative products, services and processes has remained high, as is shown by the continuing rush of developments in such domains as information technology, biotechnology, communications and pharmaceuticals. What is less often realised is that much of the potential of innovation is lost when too much focus is put on technical ideas and research and the rest of the innovation process is neglected and badly managed. This brings out the importance of: carefully planning the dissemination process; designing the overall organisation as well as the individual workplaces to foster continuous improvement; developing cultures which are supportive of continuous change; and ensuring the availability of adequate capital to enable management to concentrate on the innovation and continuous change processes, rather than spending excessive time worrying about how to pay the next invoice. Thus, any major technological or organisational change should be followed by a period of continuous improvement, allowing the organisation to adjust step-wise to the new situation.

The speed of innovation is important for developing productivity and growth. However, there are no benchmarks in this field-'more haste' can indeed mean 'less speed' if there is insufficient human factor involvement in innovation. The overall trend, both at the enterprise and macro-economic level, for the speed of innovation to be accelerating has given rise in part to the problems of structural change of the western industrialised countries over the past 20 years. 'Time' remains a relatively neglected factor for productivity development.

Innovation must lead to new products and services, to enhanced performance processes and to renewal of the economy overall. This means that innovation must not be confined to matters of new production technology but must also lead to new products and services and contribute to improving work organisation and working conditions. Through the close linkage between innovation and the development of productivity and economic growth, EANPC member organisations play an important role in the innovation process. In particular, they inform SMEs of the opportunities and risks relating to product and process innovation and help them in the design of innovation processes. They also contribute to enhanced transfer of know-how between research and enterprises and to defining the goals for the state's innovation and technology policy.

4.4 Employment

On the level of the economy overall, increased productivity has, for the past two centuries, gone hand in hand with increased employment: the countries with the best rates and levels of productivity performance are those which have generated and sustained the best levels and rates of employment increase.

However, at the enterprise level what appears to be good labour productivity performance has often been achieved either through a reduced workforce doing the work of previously more numerous colleagues or more frequently through functions previously performed by the workforce now being carried out by units outside the enterprise. Furthermore, in the past two decades, low (by previous standards) economic growth and productivity performance have had negative impacts on employment-jobs disappear and there is under-employment of the available potential.

Moreover, with the growth of the services' society, the relationship between measured productivity development and employment has become less clear. The so-called 'productivity paradox' appears to indicate that the high rate of employment increase in services has been accompanied by a slowdown in the rate of productivity growth. However, some analysts claim that the problem is one of measurement: the tools available have been unable to capture the productivity advances which have been significant and helped generate increased services' employment.

What is clear for the future is that in order to combine the development of productivity and economic growth in such a way that they generate positive employment impacts, new approaches to sharing productivity advance must be developed and implemented in the economy. One important-albeit only one-aspect in this respect is the relationship between productivity development and financial rewards.

In the countries of the member organisations of the EANPC, unemployment is a considerable challenge for economic policy. Member organisations contribute to tackling this issue in two ways: on the one hand, through measures (already mentioned) to foster productivity, competition, growth and innovation aimed at strengthening enterprises and thereby to making jobs more secure, even in an era in which the percentage of those employed having lifelong employment is declining; and, on the other, they can develop and use innovative approaches to increasing employment, notably in the flexible management of the entire range of the factors of production: knowledge, labour, capital, materials, time, and space. They can in this way transfer and adapt positive examples from one country to another and contribute to co-ordinated employment policy measures.

But these are not the only options open to member organisations: through their consulting activities, they help to bring in innovative and flexible company structures which contribute to the creation of additional employment opportunities; they also foster new fields of employment; by relating further training to company development, they enhance the continuing employability of individuals; they support sectoral and vocational mobility; and they support start-ups and the development of innovative products and services.

The activities of the EANPC member organisations must increasingly be focused on effectively supporting employment policy in their individual countries. The support should cover the entire spectrum of measures from stabilising existing enterprises, through establishing new ones to measures targeted at threatened groups such as older workers, female workers, the unemployed and young persons. On account of the tasks assigned to them, EANPC member organisations serve as an effective link between economic policy and labour market policy measures at the level of the enterprise. Thus, through its members, the EANPC can contribute to the implementation at the national level of the employment policy goals of international organisations.

4.5 Work organisation and learning organisations

The way in which work is designed-from the physical lay-out of the individual workplace through to the way in which the enterprise is 'articulated' with its environment, notably its suppliers and customers-is a significant source of productivity development. And, on the other hand, the quality of work organisation is influenced by a number of factors, one of which is productivity development. Particularly as, over the past few years, the rate of economic growth has declined, competition between enterprises has intensified and the pace of economic structural change has quickened, the quality of work organisation has become more important as a factor influencing productivity development. In this respect, new forms of employment, such as part-time work, project and tele-working, play as important a role as forms of work in which the workforce has more freedom of initiative, enhanced skills and greater responsibility for their collective work (such as team-working, one-off projects and working time arrangements). Not that all

changes have been for the better: de-skilling has continued to occur as new products and processes replace those existing.

Enterprises have reduced their hierarchical levels, decentralised responsibility ('empowered' their workforces) and sought greater flexibility in their organisation. These and other change processes have been driven forward by a range of organisational design and management approaches. These include programmes for improving the linkages between living and working conditions-family life is clearly a 'productivity factor' for mothers, but also for a growing number of fathers-as well as a variety of management philosophies such as lean production, just-in-time, re-engineering, and total quality management.

Moreover, the skills' demands on the workforce have increased. It is not just that new skills have to be learned, but also that old skills have in some cases to be renewed and, in others, to be unlearned. The productivity challenge is to ensure that the greatest possible proportion of the existing workforce is willing, and able, to continuously upgrade its individual and collective skills. And this can only be achieved by a judicious blend of learning off-the-job and on-the-job. To promote such synergy, work must be designed in such a way that it is conducive to the application of the more theoretical off-the-job training. Thus does 'the quality of work organisation' depend on both structures (the actual shape of the organisation) and processes (the changing skills-both collective and individual-which people actually use to satisfy their customer).

In the design of these change processes, the EANPC and its member organisations can play an important role. Indeed, in the past few years their activities have been focused on these processes. The EANPC represents in this respect one important network for transferring know-how and information to and among enterprises, countries and international organisations. Different countries have had different experiences with organisational processes and their design at the enterprise and sectoral levels. It is important to collect, exchange and evaluate these experiences for a variety of reasons: to avoid making the same mistakes twice; to describe good practice examples; to give advice on and inspiration to designing the processes; to make the competition which enterprises-particularly SMEs - are facing more transparent; and to contribute to ensuring that enterprises do not become locked into work and enterprise structures which cannot meet the current and emerging conditions of international competition. Among the tasks of the EANPC member organisations is the organisation of national information exchange processes and the communication to enterprises of new knowledge on management and leadership, through consulting, enterprise projects and workshops.

4.6 Safety and health and working conditions

Economic success and corporate competitiveness are of prime importance both for the enterprise and its workforce. For development which is future-orientated, enterprises increasingly need qualified, motivated and efficient workers who are able and willing to contribute actively to technical and organisational innovations.

Healthy workers working in healthy working conditions are thus an important precondition for the enterprise to work smoothly and productively. An enterprise's economic goals do not-or should not-conflict with its goals relating to working conditions; rather, they complement each other. Unfortunately, recent European Union studies of working conditions show that the health of the workforce is not sufficiently recognised as a productivity factor. Certainly there are now fewer 'classical' health risks such as those brought about by heavy work or work in bad weather conditions; but there has been an upsurge in burdens such as work intensification, time pressure, greater responsibility and high concentration or, on the other side, monotony and social isolation. These burdens show up as health disorders (such as musculo-skeletal disorders), stress and the burn-out syndrome, increased absenteeism and lack of motivation.

In a broader meaning, safety and health at work extends into the management fields of working time organisation, training and learning, work design or individual career development. Sensibly designed, all such elements can have positive impacts on the health of the workforce.

Improved working conditions, including safety and health at work and a healthy workforce, are very important for productivity development. The EANPC together with its members is striving, through information meetings and consulting, to bring out the economic significance - at both the macro and micro levels - of working conditions and to develop measures for introducing more approaches in this area in more companies and organisations. This is not just beneficial to the workforce, but is also a contribution to fair competition between enterprises and economies.

4.7 Skills/qualifications

In times of rapid economic and structural change, technological developments, continuously changing markets and tougher national and international competition, an enterprise's productivity and the efficiency depend increasingly on the deployment of a highly skilled workforce. In a situation in which enterprises world-wide operate at a technologically similar level, high skills have become a key competitive factor for productivity and economic efficiency. Efficiency and motivation, knowledge, skills and key qualifications (such as flexibility, cost-awareness, client orientation, meeting deadlines) need to be developed and used in all areas and for all functions.

This can only be achieved in enterprises which design and implement coherent policies and practices to enable their workforce to learn continuously and to develop company structures which enable the workforce to better meet the needs of their customers. There is a clear connection between the level of qualifications of the workforce and productivity development. On the one hand, working productively in the present technological, economic and organisational conditions prevailing within the Member States of the European Union demands a broadly skilled workforce. On the other, the existing skills and qualifications of the workforce limit the possibilities for the enterprise to react to the changing demands of the market. Thus, from an economic viewpoint, 'human resources' can no longer be understood as an elastic, technically substitutable factor, but rather a limitational factor on productivity, innovation and economic success.

Under these circumstances, an important task for the EANPC and its member organisations is to show entrepreneurs, managers and corporate stakeholders that workforce skills and qualifications are an important element of productivity development and a prime factor of competitiveness. They must bring out that enhancing skills is not just a concern of basic and vocational training policy, but also an important constituent of productivity policy and that it hence needs to be embedded in an organisation conducive to change and supportive of learning. All productivity improvement programmes fail if the skills required for their implementation are not available.

On the national level it is particularly important for EANPC member organisations not only to become deeply involved in life-long learning processes, especially in vocational further training, but also to bring out the productivity aspects of skills' learning and application which go beyond the boundaries of the individual enterprise. A key element in this respect is to strive for greater portability of qualifications and skills. For the more company-specific are the skills, the less they will be adaptable to the needs of other companies should the individual need or want to change to another enterprise.

4.8 Environmental protection

Paying due attention to the environmental protection aspects of production and product development - 'Green Productivity' - is no longer a luxury; it is not something which can be afforded only by large enterprises in good times, by the producers of ecological niche products or by supposedly 'over-regulated' economies, such as the German. For environmental protection and know-how of environmentally-friendly production and work processes is an important competitive and productivity factor. The yardstick for this is no longer the existence of legal requirements and limits, but rather the knowledge and availability of technology which protects the environment. These today constitute an important technological asset, as is indicated by the environmental initiatives of Japanese enterprises (hugely supported by government), the market-leadership positions of American enterprises which produce environmentally-friendly goods, and European design which builds into a complex product ease of dismantlement after its useful life in order to maintain environmental standards. 'Green productivity' also impacts favourably on other factors contributing to productivity development. Thus, it opens up good economic development opportunities for SMEs. Moreover, linking environment opportunities with safety at work can be a significant contribution to

improving working conditions since enterprises' internal and external environments are very closely associated.

For the EANPC and its member organisations, this area of concern brings out the task of carrying out exchanges of experience between enterprises on the national and international level, of showing good practice examples and of running further training courses and consulting in enterprises. Corporate management needs to be shown that environmental protection pays, and that environmentally-friendly production processes and products are significant factors of competition.

4.9 Social partnership

The significance of the lone entrepreneur as a driving force of economic development is undeniable: the individual ruggedly taking his or her idea from conception through innovation into successfully marketed goods, services or processes. Indeed, all European countries need to foster the spirit of entrepreneurship.

However, productivity development is increasingly dependent on cooperation and team-working. For advance in any working community can only be achieved by the willing involvement of all concerned, pulling together towards mutually accepted ends. Such 'social partnership' has been the very basis of EANPC member organisations. For they (or their predecessors) were constituted with the direct involvement of governments, employer bodies and trade unions who see them as actors in significant areas of overlapping interests: the pursuit of socio-economic change (notably in the eight areas already discussed), deliberated in advance, and flanked by measures aimed at ensuring the continuing employability of those who are likely to suffer from the change in question.

Partnership can take many forms ranging from working agreements at the national and regional levels (with various pacts having been worked out by the 'social partners') down to the enterprise, plant and work-groups levels, with the growing importance of 'value chains'. What the cooperative (rather than confrontational) processes might lose in rapidity of decision-taking they gain through the committed backing and understanding of all parties.

And the whole demonstrates the continuity of the original 'productivity movement' of the European Productivity Agency which defined productivity as *a state of mind, knowing that what you do today is an improvement on yesterday, and striving to make tomorrow better still.*
The EANPC's member organisations keep tracks of successful social partnerships in their own countries

and use the ways and means of the EANPC to share good practice and developments.

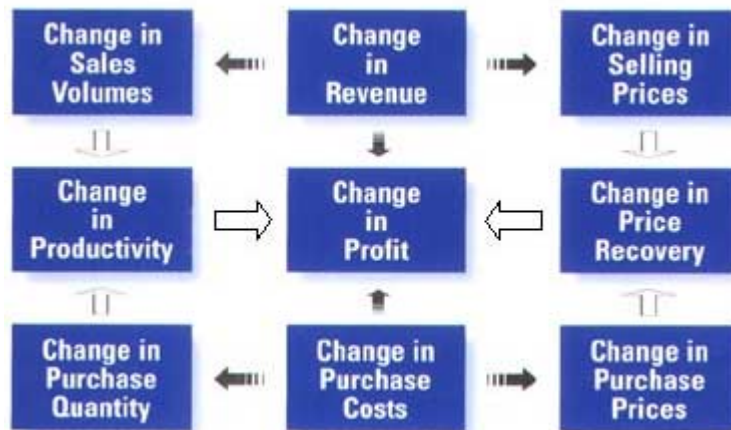
5. CONCLUSION

This Memorandum has been unable to keep the main contributing factors of productivity development in separate, watertight compartments. Nor would such an approach, even were it to have been possible, desirable: for productivity development is holistic, driven by competition and facilitated by the factors enumerated; and without productivity development, there can be no new and sustainable jobs.

The Contribution of Productivity to Profits

Productivity accounting systems rest on isolating the quantity and price components of monetary value changes for both revenues and costs. South Africa's NPI has extended traditional ratio analysis by isolating the productivity and price changes that drive profit change and measuring total productivity in both percentage and financial terms. The basic concept is explained simply by means of a nine box diagram:

Sources of Profit Change



The centre column represents the conventional financial accounting definition of profits as the difference between revenues and costs. To increase profits, revenue must increase faster than costs. However, corporate revenues and costs comprise various controllable and uncontrollable factors. Merely to monitor revenue and cost changes does not provide knowledge about the interaction of these various factors - interactions that are ultimately translated into the bottom line. Nevertheless, basic accounting information can be used to gain insight into precisely what is driving profits. Revenue can change only as the result of changes in sales quantities or of changes in selling prices as depicted by the top row. Similarly, costs and expenses will only change when either the volume of resources used or their purchase prices changes, as shown by the bottom row. The left-hand column then identifies productivity as the ratio between product quantity (output) and resource quantity (input). A productivity level exists for each resource contributing to the business (thus, labour productivity is only one of many components of total productivity). It is now possible to show directly the effect of productivity change on corporate profits. Furthermore, it is clear that if all other factors are held constant, productivity becomes the only source of profit growth.