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 on all others.

The positive development of society depends on economic growth. 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.

In this context the concept of socially sensitive enterprise restructuring (SSER) must be mentioned. Restructuring that helps achieve both long-term competitiveness and minimises social costs at all levels (enterprise, industry, and national) is an issue whose importance is emphasised by all constituents of the ILO: governments, employers and workers. 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...
Competition is the driving force behind the development of productivity and growth. Therefore, 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. 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.

Competition and quality
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.

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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
Increased productivity has, for the past two centuries, gone hand in hand with increased employment

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 quality stresses customer satisfaction, its enhancement 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. In this perspective the vital role that workers play in improving quality, individually and in teams, has to be stressed. Moreover, improving the organisation of people’s work (social capital) supports and fosters this role of workers.

**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 the ‘human factor’ as well as the organisational structure and culture, the adoption of new technology in innovation is doomed to failure.

Good communication and cooperation are key prerequisites of this concertation with the human factor. Workers play a key role in product and process innovation and technology upgrading (human capital), provided that workers’ participation and organisation of the work (social capital) are optimally applied. 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, bio-technology, 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 such factors as: 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 well prepared and 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.

**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 (outsourcing to lower wage countries or companies). 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.

In addition to this as innovation and customer value become more important factors for productivity in a globalised economy, an enterprise whose productivity strategy aims primarily or exclusively at cutting back on labour as an input may find itself less competitive. Recent research findings show that downsizing employees does not lead to long-term improvements in the quality of products or services, nor to sustainable productivity improvement.

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 have
Economic success and corporate competitiveness are of prime importance both for the enterprise and its workforce.

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. However studies show that the productivity and the competitiveness achieved by all these measures is short lived if the restructuring is not managed properly. Socially sensitive enterprise restructuring could overcome this risk. Examples from practice show that there are enterprises which have successfully adopted socially sensitive enterprise restructuring principles.

**Work organisations and learning organisations**

The way in which work is designed – from the physical layout 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 teleworking, virtual and mobile work 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). The exponential growth of applications information and communication technology has enabled cooperation between people on distance through virtual teams,
All European countries need to foster the spirit of entrepreneurship

in cyberspace: a worker is able to work independent of place and time and communicate with colleagues and customers. There are four forms of virtual work: mobile work; virtual teams; shared services, and virtual networks, of which mobile work is the most popular. Virtual work can increase productivity but research has shown that mobile work for instance may lead to increasing workload and hence work stress.

Thus not all changes have been for the better: not only work intensification may occur because of innovation but also 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 socio-technical systems design, lean production, the learning organisation, just-in-time management, business process 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). The important contribution of workers in innovating and developing the work organisation and organisational learning is increasingly recognised. Effective communication channels can identify early problems in work design and more genuinely empower workers to take on more responsibilities as work becomes more decentralised.

Safety, 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, working conditions show that the health of the workforce is not always 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 without balancing authority 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.
Productivity development is increasingly dependent on cooperation and teamworking

on the health of the workforce. Moreover the workforce itself, by labour-management committees, can contribute to improving safety and health conditions on their own workplace.

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 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 jobs.

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 limiting factor on productivity, innovation and economic success.

That means that it takes time for an employee to become qualified for his specific job in order to be optimally productive. Through on the job training and encouraging colleagues to participate in more formal training to put that training in use, workers disseminate knowledge and skills. Studies show that this informal human resource development plays a large role in upgrading the skills of workers. Hence workers are essential in promoting a culture of upgrading of skills in the workplace.

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. Environmental protection and know-how of environmentally-friendly production and work processes is an important factor to competitiveness. 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 in 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. Linking environmental management opportunities with safety and health at work can be a significant contribution to improving working conditions since enterprises' internal and external environments are very closely associated. Thus, it opens up good economic development opportunities for SMEs. Finally the important role that workers can play in identifying and eliminating waste and monitoring green production strategies is to be stressed.

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 teamworking. 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 co-operative (rather than confrontational) processes might lose in rapidity of decision-taking, they gain through the committed backing and understanding of all parties.

Partnership helps to build social capital on all levels in the enterprise. We have seen that social capital together with human capital constitute the human factor, essential to productivity improvement. Studies show that there is a significant correlation between an enterprise's willingness and experience with partnership with its own workers and its success in developing key partnerships in alliances, joint ventures and partnerships in its value chain.

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