



EMF position paper on innovation policy

Creating a climate of innovation as a tool for economic and social progress

*(approved by the 101st EMF Executive Committee
Luxembourg, 22nd & 23rd November 2005)*

Introduction

With the re-launch of the Lisbon Strategy very much focussed on Industrial Policy at the crossroads of sectoral development and horizontal regulations, innovation policies, R&D and lifelong learning, the European Union has set up an ambitious project.

In both the documents STRATEGY OBJECTIVES 2005-2009 and “Working together for growth and jobs – A new start for the Lisbon Strategy” the social partners are asked to contribute to make it a success.

The EMF considers that there are two pillars within these new strategies that are of high importance. The EMF will therefore work constructively to:

1. Contributing to a stronger European industrial base, which is in line with our general understanding of industrial policy especially from a sectoral point of view
2. Anticipating and managing change to which we can contribute also from a company policy point of view.

There are other aspects that we wish to concentrate on in future that are mentioned with regard to these two pillars: innovation, knowledge, technology policies, up-take of ICT, R&D infrastructure, etc.

The EMF is already taking part in sectoral debates at European level (Aerospace, Space, Automotive, Steel, Shipbuilding, ICT, Engineering and Defence). These sector activities are all linked to the future development of these sectors in a global environment, to their technological and innovation performance, as well as managing restructuring in a socially responsible manner.

How is the EU preparing itself to be able to meet the challenges?

Within DG Enterprise and Industry the European Commission has established a new directorate 'D. Innovation policy', which also covers Technology for innovation and ICT.

As another example on which action will be taken, the Commission suggests establishing a 'European Institute of Technology' to act as a pole of attraction for the very best minds, ideas and companies from around the world (they have forgotten to mention the trade unions!). The establishment and management of this institute needs to be monitored and followed carefully.

DG Research, under its previous EU Commissioner Philippe Busquin, launched the debate about 'the future of European manufacturing'. A final report has been published by the Commission 'manufuture 2003' and a future-oriented report 'MANUFUTURE A VISION FOR 2020' was published in November 2004. A 'MANUFUTURE strategic research agenda' is currently in preparation.

The new EU Commissioner, Janez Potocnik, has decided to continue this debate and a kick-off meeting for the establishment of a new high-level group and the setting of an appropriate agenda took place on 28th February 2005.

Following the EU Commission road map, the EMF will be invited to more and more high-level groups for different sectors within the European metalworking industry. Those activities are very much linked to the aspect of how to improve the competitiveness of the European metalworking industry.

Given that European productivity and investment for R&D are lagging far behind that of Europe's main competitors, something has to be done. In the EMF view, these aspects cannot be tackled from a simple technical and quantitative position.

Aspects such as social innovation, improvement of work organisation, the impact of innovation on anticipating and managing change and the role of trade union sector experts, as well as European Works Councils, on enterprise innovation policies have all to be taken into account.

What does the EMF intend to do in future?

1. Strengthen its involvement in the related policy debates at European and national level
2. Support trade union experts at sectoral and company level in their activities related to technological and innovation aspects
3. Make innovation a part of the managing change debate and use innovation to improve the tool box for managing change
4. Deepen its relationship with research institutes and individual experts, as a common brain and tool, on the above-mentioned topics
5. Set up and introduce an EMF action plan on innovation
6. Further develop the EMF Innovation Policy Expert Network in order to have a sound basis and be able to play a more pro-active role in this respect.

1. *Innovation in the driving seat*

Today's economic progress relies heavily on the creation of knowledge and its transformation into new products, services and processes. As Europe is not able to compete on the basis of natural resources, and does not intend to compete on the basis of cheap labour or at the expense of the environment, Europe must respond by investing in knowledge in order to raise productivity, create new jobs and new products and services of high value added. Innovation is probably the only way for Europe to foster economic growth and maintain its industrial activities, while at the same time ensuring social progress and promoting environmental sustainability.

Although knowledge has been the basis for economic activity of all kinds in all human societies there are quite a lot of differences with the past:

- The rate of technological change is much higher. Nowadays knowledge has become a product that is produced in an industrialised, structured way. The scientist working in 'splendid isolation' no longer exists.
- The breadth of the knowledge base on which any industry sits has increased enormously. This obliges companies to integrate technologies far beyond their traditional knowledge bases.
- Knowledge generation takes place everywhere: production, sophisticated consumers, training, suppliers, business concepts, logistics and marketing.
- The extent to which knowledge lies at the heart of economic growth is much higher. In fact, rather than labour and capital, it is knowledge that has become the dominant factor of production and the main driver for productivity increases.
- The rate and efficiency with which new knowledge is diffused throughout the economy is much higher because the degree of connectivity among knowledge agents has increased dramatically as ICTs have reduced both physical constraints and costs in the collection and distribution of information.
- The emergence of complex innovation networks which make the innovation triangle (creation, diffusion and use of knowledge) more complicated and make it move faster than ever before.

All this has fundamentally changed the role and significance of knowledge for economic activities.

The new international division of labour and the emergence of a connected world economy provide developing countries with ample opportunities. As a result many industries in the developed world are under threat from relocation and off-shoring, resulting in restructuring and job losses. Jobs are also under threat because companies step up their process innovation in order to raise productivity so as to respond to the competition of low-cost countries, but with job shedding as a result.

To improve competitiveness and to serve global markets Europe has to increase the rhythm of product innovation and upgrade its economy incessantly. This race is never-ending. In a globalised world, characterized by on-line information flows, innovation-based advantages are quickly transferred to the rest of the world, e.g. the high-tech exports of China have grown dramatically and the country has already become the world's 6th largest exporter of high-tech products.

Consequently, different European high-level reports (e.g. Kok, Sapir) recommended speeding up the transition to the knowledge-based economy and as a result innovation has become the primary driver of successful industrial and enterprise policy.

The transformation from a resource-intensive industry to a highly competitive and sustainable knowledge-based industry will require massive investments in RDI and an integration of research efforts at European level. To strengthen excellence and reach a sufficient “critical mass” of resources a reinforced European RDI policy must aim at creating a full European Research Area and at the same time take advantage of the large regional and cultural diversity inside Europe.

In today’s increasingly global and increasingly knowledge-driven economy, competitiveness depends to a far larger extent than in the past on the ability of industry to meet fast-changing market needs quickly and efficiently through the application of new technology. This ability is largely affected by the conditions which permit, encourage and sustain innovative creativity and investment, or which impede and limit it. In this respect a stronger link between research and industry is particularly important. Europe needs a clear strategy on how to boost the manufacturing sector through innovation and knowledge-based production.

The scope of this position paper is to define how RDI can contribute to guarantee the future of industrial employment in Europe, taking into account:

- the need for a sector-specific approach whilst taking into account the blurring borders between sectors;
- the importance of both technological and non-technological innovation (innovation without research);
- the future of high-tech as well as low-tech sectors, of sunrise as well as sunset sectors, paying attention to incremental technological progress in traditional industries as well as to technological breakthroughs in new sectors;
- the all-inclusive nature of innovation, which requires involvement of all stakeholders in defining objectives, visions and strategies and an ongoing interaction between all actors;
- the evolution in the innovation concept: from the linear model having R&D as the starting point to the systemic model in which innovation arises from complex interactions between individuals, companies and institution - this obliges innovation policies to extend their focus beyond the link with research;
- the pace of technological change and the need for trade unions to come to grips with change;
- the important regional disparities as regards RDI.

In the era of the industrial revolution textile workers destroyed their machinery in an attempt to protect their jobs and livelihood. Ever since, trade unions have had a reactive approach to the introduction of new technologies, i.e. dealing with their social consequences. Today, in order to guarantee the future of industry in Europe we have to move to a more pro-active approach by promoting innovation and

technological progress as a tool to preserve and create jobs. In this process the EMF wants to ensure that employees are given the tools to enable them adapt to adapt to the rapid changes.

2. Research and development: the 3% challenge

The EMF fully supports the Barcelona objective of investing 3% of GDP in research and development by 2010 (2% private and 1% public spending). Currently the EU is spending around 2% of GDP. This level has in fact remained almost unchanged since the launch of the Lisbon strategy. In the US, by contrast, R&D spending rose from 2.5% to 2.8% during the last decade and in Japan from 2.6% to 3.1%. The newly-industrialised countries in Asia are also heavily investing in R&D.

To achieve the 3% level, we need:

- Increased financing for the special policy themes and target areas vital for improving the competitiveness of European industry (especially avant-garde European programmes). In this context the EMF regrets that the announced doubling of the budgets for the 7FP will not now take place due to budgetary constraints. As the European R&D budgets only represent 0.1% of European GDP, European financing needs urgently to be stepped up. The EMF therefore insists on a quantum leap in RDI funding at European level.
- Increased investment in R&D from the enterprises themselves, especially from companies operating in the "old" branches of the metal industry.
- Increased public R&D financing at national level (target 1% of GDP), especially for the ICT and metal industry.
- Increased efforts on the Commission's side to coordinate existing R&D and industrial policy (and related policy areas that might obstruct innovation), generating new actions where there are market failures or lack of industry interest in order to create added value for the whole European metal industry.
- Increased efforts to promote the economic and social transformation in the ACC countries using growing EU funding through structural funds for the purpose of strengthening the respective countries' innovation structures and wide dissemination of the EU innovation and R&D results.

In the EMF view, the Barcelona objective of 3% has the merit of being precise, measurable and clear. However, efficient use of the money must also be guaranteed. Therefore, the Barcelona-objective must be completed by more qualitative objectives as well:

- A more efficient and effective European research system (the European Research Area) that overcomes fragmentation, ensures better coordination, collaboration and networking, enhances dissemination, provides excellence and brings to surface the hitherto "untapped" high research potential which exists all over the EU.
- Better mobilisation of the EU financial instruments for R&D (the 7th FP, CIP and the structural and cohesion funds) to strengthen the knowledge capacities

in less advanced regions and to unleash the full research potential in the accession countries.

- Creation of enough critical mass by establishing trans-European research infrastructure and projects (large-scale joint technology initiatives for breakthrough technologies, Galileo).
- Bringing science and society closer together by enhancing the dialogue between the two and by integrating the knowledge-economy into the European social model.
- More focus on the research needs of traditional sectors and SMEs (since both invest relatively less in research than their counterparts in the US).

Furthermore, as the factors affecting research and innovation are specific to each industrial sector, research policy has to be tailored to specific sectors. This can be achieved by setting up technology platforms and launching technological foresight studies, innovative clusters, sectoral research centres and funds. The newly-created technology platforms in particular have enormous potential as regards making a major contribution to competitiveness and job creation. Their technology and market foresights will help to identify the key technological and economic challenges for specific sectors which finally should result in strategic research agendas and industrial action plans. In the meantime they also contribute to identifying the market potential of new inventions. Technology platforms must create a link between R&D and industrial policy.

Finally, as Europeans obtain only 1/5 of the patents granted in the US, there is an urgent need for a European Patent that is simple, cheap and reliable, and is able to combine both the protection of IPRs and the dissemination of new technologies.

The EMF, together with its affiliates, is keen on actively promoting of the above-mentioned policy objectives at company, local, national and European levels. The 3% objective of Barcelona is a clear goal that deserves overall support, but it has to be complemented by qualitative objectives guaranteeing efficient use of scarce resources. Finally, sector-tailored sectoral research programmes must be the basis for a revisited sectoral industrial policy in Europe.

3. The complex world of innovation

Innovation is the application of already existing knowledge in a new context or way. In this respect it must be clear that innovation is more than technological innovation since it includes other forms of innovation like new concepts for logistics or marketing, organisational innovation, business model innovation and product design as well. In fact, industrial innovation is not generally based on newly-created scientific knowledge.

Therefore, it must be clarified that innovation and knowledge generation also take place outside the formal R&D process. A successful innovation system should develop mechanisms to take advantage of this “learning without formal research”. There is little awareness of policies aimed specifically at innovation that is not R&D-based. Anyway, it would be a mistake to equate the knowledge economy with a very small number of research-based activities such as ICT and biotechnology.

Nevertheless, the 3% objective of Barcelona is often identified with the development of high-tech, high R&D industries.

It must be clear that technological success does not necessarily imply economic success. The broad European support for new sunrise sectors like micro-electronics (remember the big programmes such as Brite, Esprit, Race) was unable to prevent Europe losing ground in these sectors and there is now a big trade deficit in the ICT sector. The European policies were probably too much supply- and technology-push oriented instead of being more demand-pull policies.

Although R&D as the source of invention is an essential factor for long-term growth and the survival of European industry, the evolution of the innovation concept – from the linear model, in which R&D is the starting point for fundamental and necessary innovation steps preceding the industrial process, to the systemic model in which innovation arises from complex interactions between individuals, companies, research institutes, customers and suppliers - demonstrates that innovation policies must extend their focus beyond the link with research. Many innovations with an economic impact are simply the re-combination of already existing knowledge, leading to new products or processes (innovation without research).

As companies are at the heart of innovation, policies must enhance companies' ability to recognize market opportunities, to broaden their knowledge base and combine different technologies, to develop their potential to use existing technologies in an innovative way, to discover possibilities for taking up ideas from other business sectors and to adapt them for use in their own production processes or market. At the company level innovation does not always mean employing the very latest, expensive, cutting-edge technology. It is not so much a question of technology as of creating a climate of innovation, a way of managing innovation processes in a way that new ideas are generated and transferred into new products that also sell.

This means that companies must be supported as regards developing their capabilities to transform globally available knowledge into plant/firm/task-specific knowledge and competence, to access knowledge resources in a critical and selective way and to create new configurations of knowledge.

The EMF considers that the development of a successful innovation policy requires the following:

- Creating rapid, easy and cheap access to a large amount and wide variety of knowledge. This highlights the importance of knowledge diffusion and distribution. If knowledge is not distributed throughout the economy, it cannot contribute to innovation in locations other than where it was generated. The success of innovation policy is determined by the rate and efficiency with which new knowledge is diffused. This means the creation of a transparent market for knowledge transfer and diffusion and a high degree of connectivity between knowledge agents.
- Increasing the absorption capacity of firms, especially because of the growing complexity of the knowledge base that companies have to make use of. An effective process of knowledge diffusion needs to be matched by adequate 'absorption capacity'. Companies must be able not only to acquire information but also to integrate and absorb it.

- Diffusion of innovation through a flexible and mobile labour market. Knowledge is to a great extent connected to employees (human capital), and the diffusion of knowledge and new combinations of knowledge is therefore heavily reliant on the readiness, ability and incentives of the labour force to migrate between employers, i.e. within clusters.
- Stimulating and facilitating the emergence/reinforcement of innovative clusters (geographic concentrations of complementary and interdependent, yet competing enterprises, suppliers, service providers and associated institutions), also with a view to better taking account of the specificities of every single sector/technology. Interactions between companies, investors, technology transfer agents, research centres and public bodies are essential for innovation because they ensure a steady accumulation of know-how. Innovative clusters can take the form of pre-competitive knowledge centres, poles of excellence, technology platforms, technology watch exercises and all kind of partnerships between knowledge agents.
- Paying due attention to the non-technological aspects of innovation. The capacity to carry technological innovation through to commercial success depends on far more than just investment in research and development. Design, market analysis and training are also factors that are involved.

At company level, traditional management styles and/or organisational shortcomings often lead to the underdeveloped use of a large potential for knowledge generation and innovation and prevent companies from moving beyond the product development trajectories they have inherited from the past. Therefore companies must develop an innovation policy that aims at:

- Creating a company culture open to innovation by placing the emphasis on vision, commitment and flat management structures and stressing tutoring and personal development and good internal communication. This requires an HR management policy that leads to openness, mutual trust and supports social dialogue, with a clear focus and emphasis on people leading to staff commitment in return.
- Modernizing company and work organization: quality management, flat hierarchies, cross-functional teamwork, continuous improvement schemes and problem solving groups.
- Improving the capability to incorporate and adjust external knowledge which has already been implemented and proved by others. This means the capability to observe, to combine information and to transform machinery, designs and organisational structures.
- Taking part in innovation networks and organizing the feedback from sophisticated users, suppliers and policy-makers in order to cope with the increased complexity of the “knowledge surroundings” that companies are part of and the need for companies to move beyond their traditional knowledge base.
- Organizing the accumulation and transmission of internal knowledge. Accumulated experience in the workforce is a critical knowledge asset and contributes to specific competitive advantages. The permanently accumulated know-how by the shop-floor workers leads to permanently optimised manufacturing processes and quick adoption of new technical developments. It is important to manage these non-standardised skills and qualifications (in order to avoid problems when workers leave the company or in the case of generational change). Although the ability to codify knowledge and transmit codified

knowledge is increasing and the costs of doing so are falling, implicit and tacit knowledge remains vital to the process of innovation.

- Introducing techniques/strategies for examining a firm's metabolism with the aim of improving its innovation capabilities. Better knowledge management will foster creativity, design, new production methods, shop-floor innovation and quality.

The EMF wants to promote a society-wide debate on innovation policy in order to better define the objectives and to reach consensus about these objectives. Therefore, the EMF will open a systematic new path of action by bringing the question of innovation to the Social Dialogue tables (European, national, sectoral, enterprise-level), in discussions with CEEMET (WEM) and other employer organisations, thus shouldering its own responsibilities in promoting innovation. The awareness of policies specifically aimed at innovation that is not R&D-based must be raised. Europe has to develop a new, broader understanding of innovation that does not equate innovative ability with excellence in R&D alone. In the EMF view, what is needed is a better understanding of innovation processes and the development of appropriate actions that have a leverage effect on the EU innovation performance.

4. Getting the framework conditions for innovation right: good innovation governance

Innovation does not only depend on scientific research and technological development but also on the conditions which facilitate the transformation of knowledge into innovation and marketable products. Therefore, an efficient and well-organized system of creation, diffusion, access and exploitation of all kinds of knowledge in all kinds of economic activities is needed. We cannot underestimate the importance of the quality and quantity of public initiatives in this respect.

The fact that Europe has a strong research basis, but fails to exploit this downstream when it comes to improving competitiveness, developing new products and processes and boosting productivity, is mainly the result of the fact that the European research system is a jigsaw of national public systems, dispersed funding, lack of critical mass and the fragmentation of responsibilities.

To overcome these problems action must be undertaken in the field of:

- Better policy coordination:
 - o to avoid a split between managing what is dying out (by means of industrial policy) and the attempts to create the new (by means of innovation policy);
 - o more coherence and complementarity between the different policy levels (horizontal as well as vertical);
 - o creating of links between national, regional and local innovation systems and networks .
- The latter must be supported by the creation of public-private partnerships, involving industry, the research community and public authorities, with a view to creating innovative clusters. The proposal in the 7th Framework Programme to create Joint Technology Initiatives can be seen as a new European dimension to

this kind of partnership with a strong intention to establish European coordination of research.

- Public Technology Procurement: Authorities must be allowed and encouraged to introduce specifications in public procurements that give the possibility to bidders to go beyond what is currently the best available technologies, pulling the market towards more innovative solutions (i.e. public authorities as the ‘launching customer’). The combination of innovation with public investments/procurement needs to be promoted especially as regards societal needs for which the market mechanism has no response.
- Setting up and promoting innovation networks. The growing importance of knowledge networks and cross-company co-operation needs to be supported by creating strong intermediate institutions and institutional infrastructure.
- Better use of product standards and technical regulations as a key enabler for innovation because they contribute to defining/creating markets for new products and ensure their compatibility with existing products, so as to promote worldwide European leadership.
- Support of innovation infrastructure/services: technology centres, business angels, science parks, innovation consultants, incubators, technology transfer intermediaries and IPR brokers/advisers.
- Innovation funding by reducing the equity market gap for small high-tech companies:
 - o Promotion of venture capital funds directed to seed and early stage capital or to specific new technologies.
 - o Improving the investment and technology expertise of venture capital funds (the Business Innovation Support Scheme and the High Growth and Innovative SME facility in the CIP are positive policy measures in this respect).
 - o Developing guarantee schemes.
 - o Developing tools for a better assessment of the market value of firms where the majority of their assets resides in the brains of their workforce. For investors the question of how to identify the (market, economic) value of skills and intangibles is a difficult issue. In order to increase the expertise of investors, tools have to be developed to measure and disclose information on intangibles (the networks that companies are part of, the knowledge and skills embedded in people, the knowledge embedded in the firm itself: IPRs, management tools, data bases and routines).
 - o Paying much more attention to social innovation. Innovation policies concentrate mainly on the technological aspects of innovation. However, inventions can lead to serious changes in the socio-technical paradigm. (The impact of the assembly line on manufacturing organisation and on industrial relations is probably the best example of this.) The introduction of inventions/innovations can have an impact on social and political regulation, on behavioural rules and on operation routines. Thus, on the one hand it must be ensured that technological progress leads to social progress, while on the other hand social innovation must be stimulated in order to enhance technological innovation.

In a social market economy the involvement of the social partners has to be seen as a genuine part of implementing and managing innovation governance.

The appropriate governance bodies (e.g. Science and Technology Policy Councils) have to be established on the different levels (European, national, regional and company):

- **EU institutions, governments, scientists and social partners**
- **National governments, scientists and social partners**
- **Regional authorities, scientists and social partners**
- **Social partners and external experts.**
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A clear definition of what should be achieved is required before an innovation governance body is set up. This implies a proper balance of power answering the question of how far policy-making should be influenced by this body and how deeply innovation governance should intervene in the different files.

An innovation-friendly environment at company level is based on good work organization, which can be implemented and developed only in cooperation between the social partners. This has to be seen as the core of innovation governance and should be understood as a pro-active contribution from the social partners to anticipating and managing change in an economically successful and socially responsible manner.

5. The old economy can also be exciting and trendy

Economic growth is not only based on the creation of new sectors or new technologies but also on the internal transformations of already existing sectors.

Nevertheless policies are too much focused on science-based innovation and high-tech industries in general. Too often the criterion by which an economy's innovation performance is judged is the strength of these high-tech industries. The dominant view is that there is a strong relationship between scientific and advanced technology research on one hand and industrial competitiveness on the other. To the EMF, it would be a mistake to identify the knowledge economy with a very small number of research-based or science-based activities and to believe that 'old economy' industries have no future in Europe.

What is often overlooked is the fact that a large proportion of employment in the western world is still concentrated in traditional industries and that these sectors are still able to compete in a globalised economy despite their low R&D budgets and unfavourable cost conditions. It proves that these industries have developed capabilities over the years which make them profitable and competitive. It shows their ability to innovate also in order to stay in the market, to be part of innovation networks, their strong interlinks with high-tech sectors and service branches and the presence of specific competencies that are not easy to copy. Their local embeddedness and their close relations with suppliers and customers lead to competitive advantages that cannot be easily imitated by low-cost producers in remote countries.

Low- and medium-tech industries have shown their ability to adopt high-tech technologies systematically and efficiently. It is not because industries invest relatively little (or no) resources in R&D, that innovation and technical change are not

important to these industries and that these sectors do not make use of high-tech developments in other sectors. Innovation in these sectors is to a great extent the result of processes of transforming and configuring generally well-known knowledge, components and technologies developed elsewhere. Incidentally, this has led to intense transformation processes and restructurings. The high rate at which traditional branches of industry are permanently reinventing themselves, their processes and their products is something which has often been ignored.

Therefore it can be regretted that there is little or no awareness of innovation-generating policies other than those focussing on R&D. Correspondingly, the low-tech sectors receive little attention from innovation policy-makers. This is not always the most appropriate approach as:

- high tech sectors represent only 10% of total manufacturing employment;
- science does not always lead to innovation;
- learning and innovation can take place without R&D (through formal and informal diffusion between firms and through the acquisition of tacit and practical knowledge);
- non-research based innovation sometimes leads to scientific discoveries;
- there is quite a lot of learning and innovation in low- and medium-tech sectors;
- from the point of view of overall economic growth, the growth rates of large sectors are most important;
- substantial technological updating in traditional industrial sectors provides the bulk of the markets for high-tech products and encourages R&D in these sectors.

Thus the EMF wants to raise awareness of the innovation capabilities of the so-called 'old' industry in order to develop a new and broad understanding of innovation policies and to promote the insight that innovation does not equate R&D activities in high-tech sectors.

The EMF therefore considers that:

- **a more holistic approach is needed towards innovation, focussing on the complete industrial innovation chain;**
- **innovation policy must build on the interdependence between high-tech and low-tech sectors; both are heavily intertwined as low-tech sectors make use of the knowledge generation by high-tech sectors and high-tech sectors can only survive thanks to innovation processes in low-tech parts of the economy;**
- **policies must support traditional industries in their attempts to accumulate and permanently reproduce innovating capabilities; as most of the industrial jobs are still in the less glamorous industries, innovation policies must be designed to include these sectors too.**

6. Innovation and managing change

The EMF wants to especially stress the importance of and need for organisational and social innovation in managing restructuring where it has generated its own competencies, both in the framework of the overall management of ongoing change and in the framework of companies going through and adjusting to that change.

Trade unions are one of the best-suited actors in the field - and "agents of socially responsible change"- if wanted. It should be one of the priorities of the Commission to take this into account and give the social partners the task of innovating and developing new tools for the management of this challenge.

- **The EMF proposes that the Commission invite the social partners at central and sectoral levels to establish a European innovation framework for the socially-responsible management of change.**
 - **The EMF urges its Company Policy Committee to take the issue of innovation to the European Works Councils in the metal sectors and to develop tools for works councils to assess the innovative capacity of their companies.**
 - **The EMF asks the European Foundation for the Improvement of Living and Working Conditions and interested research organisations to conduct research focused on restructuring issues and to launch pilot projects on the management of change in those industry sectors experiencing fundamental changes like steel, the automotive industry or shipbuilding. In this context, the EMCC should be instructed to follow current developments in the field.**
 - **The EMF continues to back up and initiate trade union research projects in the fields important for the competitiveness of the European metal industry such as education and learning, health and safety at work, organisational development and productivity improvement.**
 - **The EMF is interested to know more about future development visions in the different metal industry branches. Our experts are already represented in various research platform debates under the European Commission's DG Research. This same principle should be extended to other respective research platforms and Commission bodies, projects and research programmes involving the metal industry, especially its future production technologies.**
 - **Furthermore, we believe that the intense relation between company restructuring, changes in the supply chain and the emergence of company networks deserve more profound analysis.**
 - **As innovation leads to change, the establishment of a framework for the socially-responsible management of change is needed. Workers' commitment to innovation and their support for company strategies can only be guaranteed in a climate of security and mutual trust. Therefore a pro-active approach to restructuring processes and labour market policies is very much needed. In order to cope with rapid technological progress and fast market developments resulting from the globalisation of the economy, there is a need for a flexible adaptation of labour markets. However this cannot be achieved without reducing workers' job security, which means that job security must be exchanged with employment security through targeted policies at company, national and European level. The EMF will launch an internal debate on how to reconcile active labour market policies with the workers' justified aim of security and stability, and thereby support a more innovative and competitive Europe.**
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