UNICE
THE VOICE OF BUSINESS IN EUROPE

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COMMISSION COMMUNICATION

"MORE RESEARCH FOR EUROPE-TOWARDS 3% OF GDP"
(COM 499 dated 11 September 2002)

UNICE COMMENTS

1 INTRODUCTION:

In order to enable Europe to compete successfully, the European Commission has proposed increasing the ratio of R&D investment to GDP to 3% by 2010, with the intention that such investment will enhance European innovation – and hence strengthen competitiveness and economic growth, as well as provide the research base and new scientific knowledge necessary to respond to Europe's social, health and environmental needs.

European Union R&D investment is particularly weak compared with the USA - or even Japan and South Korea. The US has 50% more researchers per thousand workers than the EU and this gap is steadily widening. Thus, US business increasingly dominates global R&D in the industries of the future. Along with the 3 % goal of Barcelona, politicians should take into account measures to increase efficiency of R&D and to ensure an effective transfer for research results to the market.

Generally, UNICE considers, that the Commission's Communication is a good basis for identifying the policies and priority measures that need to be developed by Member States and the EU.

A supportive environment for industrial R&D:

Creating a transparent, stable and reliable fiscal and legislative environment in which companies can take R&D business decisions with the expectation of a reasonable return on investment.

A coherent approach across the EU:

For EU R&D to grow, there must be:

- Coherence between the R&D policies of the 15 Member States as well as the EC - across research funding agencies, universities, research institutions, etc.

- Greater thought must be given to ensuring that EU R&D policy relates to other policies such as competition and education.

2 A SUPPORTIVE ENVIRONMENT FOR INDUSTRIAL R&D

If one is to be realistic about increasing European R&D investment, a number of facts have to be faced:

- The great majority of R&D is industrial development work rather than scientific research; thus, the major expansion of R&D will have to be development-focused.
- Development work is "directed towards the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes". It is totally geared to developing marketable products and services. If a company is unsure of being able to enter and allowed to develop markets – European as well as global - then levels of development work falls and R&D investment is low. Or a company may seek to relocate its R&D activities elsewhere. Equally, as R&D becomes more global, industry will acquire its technology from wherever it appears.

When needed, industry accepts ambitious and transparent standards and regulations. Indeed such requirements can stimulate research investment. An unclear or unstable regulatory environment, however, restricts industrial R&D investment decisions because companies are uncertain whether they will secure the permission to produce new products and to execute new services. Industry's R&D investment decisions are also driven by the demands of the market. In that context, the powerful role of government public procurement in shaping and providing incentives for R&D and for introducing new technologies to the market must also be considered.

RECOMMENDATION 1

A legislative and regulatory environment attractive for private R&D investment.

- The creation of a transparent, coherent and stable regulatory environment to encourage industrial research investment.
- The reduction of barriers to market development: inappropriate standards, regulations and legislative requirements, which slow or prevent access of newly developed products and services to markets across the EU.

While regulatory clarity and market access are key issues in the sustainable increase of development work, the fiscal environment is also important – the more so since US government support to industrial R&D exceeds EU support to its own companies by nearly 50%. This is the key to meeting the 3% Barcelona objective.

- Direct government-funded R&D is important in catalysing industrial R&D investment. As such, it should be carefully targeted to leverage increased innovation, as much as gross R&D investment. Equally, the EU regulations on State aid for research need to be reviewed in order to make state aid in Europe more effective in stimulating R&D in a globally competitive environment. For example in the next revision for the block

exemption regulation for industry, the Commission should extend it to state aid for R&D. Public authorities have a range of financing instruments at their disposal, in particular fiscal incentives, guarantee schemes and public support for venture capital. A mix of instruments is needed, as no single instrument is able to provide the full range of required incentives.

- Indirect mechanisms, such as tax relief, in those Member States where appropriate, have an important role to play in encouraging innovative R&D investment.

- Cooperation between industry and universities and other research labs is very important. Most national financial instruments for R&D are limited to national cooperation. Therefore these schemes should be extended to partners in any member State.

RECOMMENDATION 2

Financial instruments for the promotion of private R&D investment

- The Commission should engage Member States in an analysis of direct and indirect financial instruments for the promotion of R&D. Appropriate and effective measures to enhance investment should then be implemented with Commission support.
- National financial instruments for R&D should be extended to R&D undertaken by institutes in any EU Member State.

3 A COHERENT APPROACH ACROSS EUROPE

3.1 Coherence across Europe in research: the 15 Member States and the EC

Currently, each Member State, as well as the European Commission, operates its own independent, differentiated research policy. This means unnecessary duplication is taking place and opportunities for major synergies are being lost. It is important to strengthen the opportunities for the Member States to benefit from more coherent research policies across Europe and from direct cooperation, when appropriate. The European Research Area will be an important platform for such activities and it might be strengthened by the direct involvement of the Competitiveness Council.

It is proposed that Member States, on an annual basis, should circulate their research programme priorities and budget distribution to the Competitiveness Council "for comments" The objective would be to alert Member States to unnecessary duplication (duplication will always be necessary for developmental and competitive reasons) and to provide for concrete discussions in appropriate areas for bi- or multi-lateral cooperation. Circulating research policy "for information" or "for discussion" is seen as insufficient to involve Member States actively in the process.

RECOMMENDATION 3

The coordination of research policies across the EU

- Member States, on an annual basis, should circulate their research programme priorities and budget distribution to the Competitiveness Council "for comment".
- While calling for coordination of public research at regional, national and European levels, UNICE wants to remind the limitations imposed by the subsidiarity principle; e.g. academic research in universities often backs high scientific education which is under the responsibility of the Member States.
- Bottom-up co-ordination initiatives both from the public and the private sector should be preferred to top-down prescriptions and encouraged by the Commission in order to find the right balance between avoiding unnecessary duplications and fostering useful emulation between research groups working on similar topics.

3.2 Coherence between research policies and other related policies

To be effective and sustainable, increased R&D efforts must be coherent with other related policies.

-Horizontal policies such as education and regional policy have major implications for boosting R&D investment. For example, increasing R&D spending implies increasing the number of available researchers by training more within the EU and opening up research positions to non-EU researchers. The realigning of funding in regional policy and the structural funds with developing industries of the future, for example, would have a major impact on R&D investment. Equally, in innovation policy, R&D investment must be supported by an appropriate and responsive Intellectual Property Rights (IPR) environment.

Overall, there is a need to ensure that new polices do not restrict or undermine R&D investment. To support the process of improving coherence between research policy and related policies, a regular dialogue between the ministries concerned should be established.

RECOMMENDATION 4

Coherence between research and related policies

- Reorient existing EC, Member State and regional budget expenditures towards areas, such as education and research, which will provide for innovation and future economic and employment growth, and away from traditional consumption, *status quo* spending patterns.
- As policies are generated in other areas (e.g. transport, health, energy, environment), an assessment of their implications for R&D policy, as well as for economy and entrepreneurship, should be made. The R&D implications of specific laws, regulations and directives - positive and negative- should be clearly signalised to the research community in industry and academia. The Commission should initiate the development of such mechanisms in Member States as well as in the Commission itself.

4 A STRONG AND VIBRANT PUBLIC RESEARCH SECTOR

As has been said, all successful nations have a strong, well-established public science research base. The universities and research institutions in the research base are a source of highly trained researchers, as well as a major factor in the R&D location decisions of companies.

- Universities have an essential role in undertaking quality research and research training. There must be an emphasis on the importance of strengthening university management, developing performance measures, the opportunities for universities to achieve research excellence, and improving and creating innovative links between academic and industrial R&D. It is essential that Governments support such developments.

It is generally agreed that mobility of young scientists is essential. However, migration tendencies are more often "one-way" from the EU to the US, resulting in a brain drain away from Europe. The driving force of human behaviour is opportunities. This one-way migration contributes to the lack of researchers entering industry and research in EU.

The potential to solve this problem exists:

- It is necessary to reverse the flow of researchers and to turn the "brain drain" into a "brain gain".
- We must use potential which has been, so far, poorly used in the EU, i.e. attracting non-EU researchers, especially science graduates from Asia, and better representation of women in research.

In the past, the US has been far more successful than Europe in attracting foreign skills. Europe should identify the motivations of EU scientific emigrants, and benchmark US initiative(s) to more successfully decrease the brain drain and redirect the flow of researchers from the US into Europe.

RECOMMENDATION 5

Supportive actions for public research and human resources

The Commission should initiate with Member States

- Strengthening the education role of universities to overcome the potential bottlenecks in various research disciplines.
- Strengthening the education role of schools and universities to overcome the potential bottlenecks in various innovation-related disciplines in particular nature sciences and engineering.
- Increasing levels and efficiency of university-industry cooperation - including public-private partnerships.
- Create means to reverse the brain drain and increase human resources

IN SUMMARY

If we are to increase R&D investment to 3% of GDP we must ensure:

1. **A supportive environment for industrial R&D:** Not only must inappropriate barriers to R&D based innovation be removed, but also a forward-looking, stable, regulatory environment must be established. A financial environment must also be developed which supports industrial R&D investment both through direct and indirectly measures, which will permit EU firms to compete at a global level.

2. **A coherent approach across the EU:** A concerted research policy should be developed across the EU through the submission of Member States' annual research budgets to the Competitiveness Council "for comments". There is also a need for coherence between research policy and other related policies, at a Commission and Member State level.