



Education and Culture

# Linking the worlds of work and education through Tempus



# 1. Executive summary

Cooperation with the world of work is no longer an optional activity for higher education institutions. It has become a necessity.

Mass access forces universities to step beyond their limited role as guardians of the world's intellect. Mass access also forces higher education to look beyond the public authorities for funding, as these can no longer bear the brunt of this expensive education alone.

Globalisation, technological developments and the advance of the knowledge society mean that more higher education graduates are needed today than ever before. Concern for their employability obliges their educators to gain intimate knowledge of their future work places.

New trends in the labour market have changed the demands on university graduates and continue to change these in such a way that change itself is the only thing likely to remain the same in the decades ahead. Such change requires flexibility and a close monitoring of the labour market. It also creates a continuing need for training on the part of individual enterprises – a need that presents new opportunities for higher education.

Increased cooperation between higher education and the world of work can offer both new sources of funding and greater relevance for modern higher education. It can offer better human resources for the labour market and access to a great source of expertise for enterprises. All of this is much needed, which is why such cooperation is an imperative, and not something universities can choose to ignore.

Governments with a concern for social welfare and economic growth have an obligation to create an encouraging environment by adopting supportive legislation and offering financial incentives where they can.

Universities must take the lead in developing partnerships with the world of work, as it is they who have the principal responsibility for the employability of their students.

Enterprises must be made aware of the myriad mutual benefits of such cooperation and must be encouraged to engage in partnerships with the institutions that train their future employees.

Cooperation between universities and the world of work (university–enterprise cooperation) is a priority for the European Commission. Tempus is its main instrument of support to higher education in the neighbouring regions. The European Commission is therefore committed to maximising the contribution of the Tempus programme to university–enterprise cooperation in these regions. In order to provide effective support, however, it must have a clear overview of the current situation on the ground. To this end,

in 2005 the European Commission launched a study to map the state of affairs in university–enterprise cooperation in the Tempus partner countries<sup>1</sup>.

The study found examples of good practice in university–enterprise cooperation in all of the current Tempus regions, but it found these mainly in areas where higher education and research activities traditionally existed. It also found that the cultural obstacles blocking further cooperation are still significant.

Universities and enterprises do not recognise the full potential of cooperation. Universities seem to be lacking in entrepreneurial spirit and remain strongly academically oriented. Enterprises are generally focused on short-term results: most of them are very small and struggle to survive. They are looking for quick solutions, which universities usually cannot provide.

On both sides there is little awareness that economic growth and the need for increased competitiveness through innovation would further increase the demand for high-level qualifications.

The environment in which universities and enterprises operate does not encourage closer cooperation, and neither do internal structures at universities and enterprises. Existing legislation and strategies do not provide much support. Social partners have not yet taken up potentially pivotal roles.

All this is aggravated by a lack of financial incentives and a general scarcity of funds.

---

<sup>1</sup> In the Western Balkans: Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Serbia and Montenegro, Kosovo. In Eastern Europe and Central Asia: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine, Uzbekistan. In the Mediterranean region: Algeria, Egypt, Jordan, Lebanon, Morocco, the Palestinian Authority, Syria, Tunisia.

### **A sixfold return**

Top North American universities earn six dollars for every dollar invested in Technology Transfer Office staff, the Milken Institute wrote in a 2006 report on the practice of technology transfer. The report also found that for each additional year that such an office operated in one of the universities studied there was an average USD 228,000 increase in incremental licensing income generated for the university.

The *Mind to Market* report generally shows the importance of research to a university's – and indeed a whole region's – bottom line. This of course applies especially to universities that have a strong biotech component, a well-functioning office of technology transfer and proximity to companies that want to pay for their services.

'Universities around the world have expanded their mission beyond that of basic research and teaching to become places where knowledge fuels patent development, business collaborations and incubators for start-ups,' the report says.

To judge and understand this trend, the authors of the report compared university technology transfer processes around the world; studied the characteristics common to successful commercialisation; and measured the role of the university offices of technology transfer (OTT).

The report does not shun the controversial nature of technology transfer. The authors are aware that some believe a university should focus on basic research and teaching, not on trading its intellectual property. But they argue that commercially viable research discoveries teach universities that their work can be applied to benefit society at large, and that innovation costs can be partially recovered in the marketplace.

'Technology transfer reflects the delicate balance of a university's wider culture and is, in fact, an important by-product of its mission,' says Ross DeVol, Director of Regional Economics at the Milken Institute and the report's lead author.

'Universities that don't encourage the commercial application of their research assets will not assist economic development in their communities and contribute fully to national competitiveness.'

*Note: The Milken Institute is an independent economic think-tank. Its report is recommended reading for anyone interested in university-enterprise cooperation. It can be obtained from the Milken Institute's website at [www.milkeninstitute.org](http://www.milkeninstitute.org).*

A supportive environment needs to be developed, one that has the potential to break the dominant cultures at universities and enterprises and that could help to develop strategies for new ways of cooperating. Such an environment must comprise appropriate legislation, financial support, incentives, and support structures and mechanisms.

However, closer interaction between the worlds of work and education is so urgently needed that an unsupportive environment should never be a decisive obstacle that stands in the way of small-scale pioneering initiatives. As is illustrated in the following chapters, elsewhere in the world such cooperation initially also developed in adverse environments. But in this field legislation tends to follow practice, rather than the other way around.