



CONFERENCE CONCLUSIONS FROM

The Knowledge Triangle

Shaping the Future Europe

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The knowledge triangle refers to the interaction between education, research and innovation, which are key drivers for knowledge based society.

European higher education institutions should play a central role in the knowledge triangle interactions by creating and disseminating knowledge valuable for society and businesses as well as by linking education, research and innovation through collaboration with the wider community.

Member states should adapt policies and steering mechanisms with the objective of encouraging interaction between universities, research institutes, businesses and public institutions within the knowledge triangle. The funding of higher education, research and innovation activities should not be negatively affected by recession but rather be increased in times of economic crisis.

The political and executive governance of the European Union institutions should take into account that structures and programmes for education, research and development as well as innovation must relate to each other. At the same time, pluralism among Europe's university and research systems should be considered to be an asset.

These measures will make Europe an even more attractive place for students, researchers, entrepreneurs and innovators, who are the key players in the knowledge triangle, and be a benefit for all citizens.

The global challenges facing the international community can not be successfully addressed without the contribution of knowledge-based innovations drawing on all areas of education and research including humanities, social sciences and the arts. The conference on the knowledge triangle aligns with the Lund declaration, setting a new focus for European research in line with the EU Vision 2020, as well as with the EU modernisation agenda for Europe's universities.

The concept of the knowledge triangle relates to the need for improving the impact of investments in the three activities – education, research and innovation by systemic and continuous interaction. Higher education institutions must be given a central role in building a Europe where the impact of knowledge building can be measured in terms of social and economic progress.

European culture, its respect for democratic values, fairness and equal opportunities for all individuals, fosters new generations of innovative and entrepreneurial young Europeans. These young individuals demand an education that develops their talents and skills. They count on educational programs that are research oriented and which broaden their horizons, that fit to their needs in content and skills and that focus the teaching to reach their expected personal learning outcomes. They also expect to train their entrepreneurial skills in learning by carrying out projects, which are science and/or business related.

The EU landscape of higher education institutions and other public research organisations is changing quickly with reforms to increase institutional autonomy and accountability. In addition to increased cooperation, there is increased competition between institutions for talent and funding. New forms of networking and partnerships among universities and with other research institutions and business are emerging. In several Member States, universities are merging and pooling resources with public research organisations to create critical mass and enhance their education and research quality.



The knowledge society has many stakeholders and contributions from all of them are needed to form the knowledge society not only as an idea but in an operational way. The knowledge triangle is thus a way of understanding and promoting the role that strong interaction between education, research and innovation can play for society and business advancement as well as for higher education and research. It is not a normative model. It is a dynamic and flexible way to manage knowledge. It encourages and creates diversity in the way universities are organized and operate. It allows and justifies different missions for higher education institutions.

Entrepreneurship plays an important role for the realisation of the knowledge triangle with implications for entrepreneurship education, entrepreneurship in research and in business innovation.

Higher education institutions

Autonomy for universities is an important prerequisite for the knowledge triangle to be realized. Autonomy allows universities to develop their missions, profiles and business models, be it regional, national or international, reflecting the relative strength of each side of the knowledge triangle.

Higher education institutions should focus their activities and develop their governance and management structures to better integrate the three sides of the knowledge triangle and use the triangle to its full potential. A distinct institutional leadership with clear objectives is needed.

Higher education institutions would need to develop strategies to tackle a number of obstacles, such as well entrenched academic attitudes and lack of mobility of staff between academic and industrial and other societal sectors. When considering teachers and researchers for recruitment or career advancement, higher education institutions should regard mobility between the three sides of the knowledge triangle as a merit.

In the long term higher education institutions would be expected to develop programmes and curricula at all levels relating to the need for interaction between education, research and innovation and in a life long learning perspective. Research and innovation need to feed back into curricula development and educational practice. Higher education institutions should especially be encouraged to include the three sides of the knowledge triangle in graduate and doctoral programmes, inspired by the European Institute of Innovation and Technology (EIT) and the Knowledge and Innovation Communities (KICs).

The role of doctoral candidates in the knowledge triangle should be emphasized. They are an important link between education, research and innovation, a role that can be strengthened through improved working conditions, funding mechanisms and relations to industry.

The creation of new communities where universities, research institutes, businesses and public institutions take a shared responsibility should be encouraged. The knowledge triangle can and should be enhanced through local, regional, national and international cooperation.

National level

Improved governance on the national level needs to be considered to support the realisation of the knowledge triangle. Policies and strategies for implementation and executive bodies must be aligned to the goal of systematic interaction between policy areas relevant to the knowledge triangle. National funding mechanisms should recognise initiatives that contribute to the realisation of the knowledge triangle.

Specifically, strengthening of the autonomy of higher education institutions is necessary to allow them to develop their missions and different profiles. The national funding mechanisms should recognise and



support different profiles of institutions. Equally important is the recognition of higher education institutions developing excellence in co-operation with external partners focusing on bringing innovations to realisation in various fields in society.

European level

The pluralism among Europe's university and research systems should be considered to be an asset. Europe can benefit from its diversity if support structures promote the interaction in the knowledge triangle.

Closer integration between the European Higher Education Area (EHEA), the European Research Area (ERA) and initiatives in the innovation area, notably the Broad based Innovation Strategy, and the future European Innovation Plan should be sought for on the European level to pave the way for a stronger integration of the three sides of the knowledge triangle. A European strategy for knowledge building institutions should reflect this relation.