

## **Education and Knowledge as Strategic Resource for Nations in the Knowledge Society**

Since 2008 the European Union suffers the effects of the global financial and economic crisis, especially countries such as Greece, Italy; Portugal and Spain. This led to big reduction in the national budgets for education and research. However, politicians, managers, academics and the civil society are well aware of the importance of investing in education and developing strategic human capital for creating competitive advantages for companies and nations.

The European Commission recognises the strategic importance of the knowledge triangle (education, research and innovation) both in regional economies and social development. Universities and research centres play a pivotal role in the creation and deployment and transfer of knowledge. They can be major players in the economic recovery of world economies.

There are several types of knowledge: human capital, relational capital and structural capital in universities and research centres. Human capital is the skills, knowledge and competences of the individual members of the university. Relational capital refers to the flow of knowledge among individuals within a network, that is, relations among academics, among academics and companies, among academics and society. Finally, structural capital represents the knowledge that remains behind in the university and research centres after the staff members leave after completing their working day: culture, routines and strategies of the university.

The European Commission proposed several possible reforms for overcoming the obstacles and challenges facing universities. They include in part :1) provide the right mix of skills and competencies that the labour market needs; 2) enhance interdisciplinarity and transdisciplinarity; and 3) activate knowledge through interaction with society and companies.

Four basic interdependent elements are present in the knowledge economy and society: 1) the production of new knowledge, 2) the transmission of knowledge through education and training, 3) the dissemination of knowledge via new information and communications technologies and, lastly, 4) the use of knowledge through new services or industrial processes. In all these actions the universities and research centres are key players with respect to achieving success.

This Special Issue is based on a selection of the best papers presented in the 4th World Summit on the Knowledge Society (WSKS 2011) held in Mykonos, Greece. They address a variety of current topics and offer new insights into engineering education and related areas of knowledge.

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