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Internship and Research

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Europe has been at the forefront of industrial development and technological innovation since the industrial revolution, but in the XX century, it felt surpassed by the USA and Japan, particularly in the aftermath of World War II. In the last couple of decades, it regained momentum and all European countries have made substantial efforts for investing in the development of industrial competitiveness through engineering research and education. Industrial internships for engineering students play an essential role in the quality improvement of engineering education. It gives an opportunity for companies to follow the learning paths of future engineers and provide students with a prospective view of their profession. The internships in companies, during the course work and right after completion of studies, are an excellent tool to engineering schools to develop their relationship with industry and society, in general. Research in engineering provides the enhancement of curricula and of the capacity for graduates to promote innovation and competitiveness in the companies accepting the recent graduates. There are experiences of close cooperation between schools and companies concerning themes and financing of research. Some of the European sponsored programs have contributed to the development of these links university/industry. There are some cases of involvement of industry's views in the university curriculum development, after the implementation of these strategic partnerships between academia and industry. A clear example is the continuing professional development programs for engineers developed in cooperation between industry and university. These aspects of internships in companies and cooperation industry/university are essential for a better qualification and competitiveness of the engineering community in Europe.