

Editorial

ENGINEERING EDUCATION BOOM IN SMALL COUNTRIES

WHILE TRADITIONAL industrial nations such as Germany, France and the USA are experiencing difficulties in filling all student places in engineering departments, as well as job shortages, there are other countries where the need for engineers and their future prospects are booming. Two of these countries are Ireland and Israel. In some ways they have similar backgrounds, conditions and some history parallels. Both countries are small with a population of 5.9 million in Israel and 3.5 million in Ireland (excluding Northern Ireland). Ireland has a relatively high birth rate and Israel a high population growth due to a large influx of immigrants. Ireland and Israel are experiencing large GDP growths, with Ireland having the highest growth rate in the European Union. Both countries have a large sympathising expatriate, or ethnically related population who are citizens of the USA. Both countries are considered to have high educational standards. Both have recently established an impressive record of computer-based high-tech industries with an investment source mainly from the USA. Ireland with Hewlett-Packard, Dell, Intel, Gateway and others and Israel with Intel, IBM, Motorola and others. As we report in *Engineering Education World* in this issue, massive efforts are being made in both countries to increase the number of qualified technical and engineering personnel. One may wonder why these two small countries are so successful, where the bigger industrial nations are stagnating. Several reasons can be surmised, but are hard to prove. One reason is the dearth of natural resources in both countries and the necessary reliance on human capital and education. Another reason could be the widespread use of the English language. Furthermore, the bureaucratic and tax barriers for investments in Ireland and Israel are less prohibitive than in some larger countries. The sequence of events is that availability of skilled and educated human resources has brought overseas high-tech investment. As a consequence, a shortage of highly skilled technical personnel threatens. This is now being combated by an educational expansion in technology areas. It will be interesting to see how these two new economic tigers will succeed in building up their technical education to cope with the demand for engineers and technologists.

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Note: The introduction of name and password access to our website is being implemented starting from this volume (Volume 15). Full access will now be limited to issues published in previous volumes. However, general access will still be available to view the contents of all issues.