

New prospects

R&D INVESTMENT CAN BOOST ECONOMY, SAYS ACADEMIC

By **Demetra Molyva**

Investment in research and development can help Cyprus's economy and open up new prospects for young professionals.

That was the message from the President of the Max Planck Society, Peter Gruss ahead of his Nicosia lecture tonight on "The Benefits of Science to Society".

In an interview with The Cyprus Weekly, Munich-based Gruss said: "Such investments can help to put the economy on a broader base, thus ensuring stable growth and prosperity."

"For young, well-educated professionals, a knowledge-based economy opens up new prospects in their home country. In the past few years, Cyprus has increased its commitment to research and the country should continue on this path for the good of all Cypriots," he added.

On the basis of several studies showing the importance of science for the economy and prosperity, the professor said Europe was missing out on significant opportunities by investing a little more than 2% of its GDP in research and development.

He pointed to the US, where research and development is around 2.8% of GDP, in Japan 3.4% and in Korea 3.7%, while China and India are also gradually catching up.

"In 2000, the EU heads of state and the heads of government set themselves the goal of channeling 3% of the GDP into research and development by 2010 - unfortunately in vain."

"The European Commission has now renewed this goal for 2020 and is expecting an increase of 3.7 million new jobs and nearly €800b of the annual GDP by 2025.

"But in order to achieve this, all member states and not just the EU, must play their part," said Gruss.

He strongly believes that everyone benefits, at least indirectly, from investment in science because in the long

term it strengthens the economy and, in turn, prosperity.

He referred to an "interesting" survey based on patent specifications in the US, which found that approximately half the publications cited were the result of publicly-funded research.

"So, without promotion of research, a large part of these patents would not even exist. The remarkable thing is that scientists from their own country are cited two or four times more often than scientists working abroad."

For Gruss, the strength of national science is an important pre-requisite for a country's technological performance. He believes that applying knowledge effectively requires close ties between the scientific and business worlds, as the Lambert Report in Great Britain has shown.

"Small and medium-size enterprises working together with universities are significantly more effective in opening up new markets, improving the quality of what they have to offer and reducing labour costs, than their competitors who have weaker links with science."

The professor pointed out that it is also not surprising that locations incorporating a number of academic institutions are particularly successful in economic terms.

"A few years ago, researchers calculated the economic growth for the Boston region in the US, where with the elite universities MIT and Harvard, almost 86,000 people owe their jobs to academic activities.

"The significance of the research institutions for the regional economy is estimated at \$7b."

Gruss believes scientific research is worth more than the €237b that is currently spent in the EU.

He referred to Robert Solow, Nobel Prize Laureate in economics who found that technological advancement, rather than labour and capital, is the driving force behind economic growth in industrial countries.

"The introduction of new technologies accounts for up to 80% of gross





Who is Peter Gruss?

Peter Gruss is the President of the Max Planck Society, a renowned German research organisation with over 80 research institutions worldwide. He is also a member of the Board of Trustees of the Cyprus Institute. He became a Scientific Member of

the Max Planck Society in 1986, when he was appointed director of the Max Planck Institute for Biological Chemistry in Gottingen. He earned his PhD in biology at the University of Heidelberg and is honorary professor at the University of Gottingen.

domestic product.

“Knowledge gained from basic research is a key factor and generates what the economist Schumpeter termed 'breakthrough innovations' - completely new products and processes that create demand by offering new opportunities.” He gave the example of the transistor and the Internet.

“Without transistors, no computers or indeed any kind of economic control system would function today - neither in industry, nor in mobile phones. In 1947, Bell Labs applied for the first practi-

cally effective patent, and during the course of the 1950s, transistors conquered the world.

“Another example is the Internet. The basis for the worldwide web, in other words the technology to link contents, was developed by the CERN research centre in Geneva, initially for internal use.”

Professor's Gruss' lecture is at 6.30pm at the Goethe-Institut, Nicosia. It is organised by the Cyprus Institute, the Cyprus Employers and Industrialists' Federation and Goethe-Institut.

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