

Oxford University Society in Cyprus: Speech Rector
Innovation, Technology Transfer and Entrepreneurship in Cyprus
Academia
22 September 18.30, Tassos Papadopoulos, Amp.2

Dear members of the Oxford University Society,
Distinguished guests,

It gives me a great pleasure to extend to you all a warm welcome on behalf of the Cyprus University of Technology, and to say how grateful we are to support the Oxford University Society Annual meeting.

Let me start with some historical contextualization and comparisons between some Oxford University events and the chronologically equivalent Cyprus events.

When the historian, Gerald of Wales, gave a public reading to the assembled Oxford dons in 1188 and the arrival of Emo of Friesland, the first known overseas student, set in motion Oxford University's tradition of international scholarly links in 1190, it was the same time that Richard the Lionheart had landed in Cyprus and was fighting with Isaac Comnenus a battle that resulted in the conquest of Cyprus by Richard.

In the 14th century, while Oxford University was an educational center and point of controversy with scholars involved in religious and political disputes, Cyprus was ruled by the House of Ibelin and the Genovese

Merchants were becoming a dominant power at the expense of the Cypriot population.

When Edmund Halley, Professor of Geometry at Oxford, predicted the return of the comet that bears his name in the 18th century, and John and Charles Wesley's prayer meetings laid the foundations of the Methodist Society, Cyprus was already more than 200 years under Ottoman rule and the newly appointed Pasha had doubled taxes which created a rebellion of Greek and Turkish Cypriots against the Ottoman administration and in addition a terrible epidemic of plague, bad crops and earthquakes, drove many Cypriots to emigrate.

While the new Oxford University Museum was the scene of a famous debate between Thomas Huxley, champion of evolution, and Bishop Wilberforce in 1860, it was about the same time that Cyprus was changing from an Ottoman territory to a British Colony.

When women were admitted to full membership at Oxford University in 1920, the Treaty of Lausanne in 1923 had recognized Britain's sovereignty over Cyprus and the British administration was reformed and some members of the Legislative Council which was established in 1926, were elected by the Cypriots, but their participation was very marginal. The Legislative Council was abolished in 1931.

While Oxford is an established and recognized world renowned institution and Oxford Innovation was set up by The Oxford Trust (now operating as Science Oxford) founded by local entrepreneurs in 1987, and the

presence of ISIS Innovation (Oxford University Innovation Ltd) a separate entity has become the driving force in the creation of intellectual property, spinoff companies and a huge revenue for Oxford University and the British economy, it was just about the same time that the Cyprus Parliament was squabbling about the feasibility of establishing a University in Cyprus with some parliament members vehemently opposing to the idea of the presence of a University. The University of Cyprus was eventually founded in 1991.

Even though there are many more historical examples to present, this timeline comparison provides an historical perspective of the Cyprus situation in comparison to the progress achieved in Europe and the UK, which may provide the reasoning and origin for the problems we are facing in Cyprus today regarding the role of the Universities in our Society, the role in Research in our economy and the Universities as a driving force behind the reform of the Cyprus Economy.

Cyprus is a strategically located island at the edge of three continents which have made it susceptible to many occupants and conquerors. Today we want to present it and aspire to make it a regional center of commerce, education and other revenue generating activities for the island something achievable with the right strategy. Nevertheless, one aspect that holds Cyprus back, is its “cultural isolation” from mainland Europe and owing perhaps to its tumultuous history, people have the “island” culture and mentality that influences every aspect of life in Cyprus and bureaucracy and red tape slows down progress and economic reform.

Cyprus had managed one way or another to attract a huge amount of personal and corporate money from outside the country in the 90s and the beginning of the millennium and while Cyprus was viewed as a fiscal paradise and presented as a country with a robust banking system and a strong economy, there came the collapse of the banking system in 2013 and the default of the economy with 10 billion euro in debt that had resulted in the confiscation of the deposits and investments of many innocent depositors. The Cyprus government as you know had to go through a €10 billion international bailout by the Eurogroup, European Commission, European Central Bank and International Monetary Fund (IMF).

The 2013 Cyprus crisis was a huge alert to the Cyprus government that Cyprus needed a fundamental economy restructuring so that the economy would be based on a system of a healthy private sector with productive small and Medium size enterprises what we call SMEs like other European counterparts that should compete on the local and international level. It was then when politicians in the Republic of Cyprus had started to think seriously about understanding Innovation, Technology Transfer and Entrepreneurship, the strengthening of the private sector and the connection and synergies of Universities and industry to produce Intellectual property and marketable products and services.

Before 2013 the majority of the efforts in innovation and technology transfer were individual researchers and a small number of ambitious

companies whose efforts were usually crushed on the bureaucracy of the Cyprus government and the labyrinth of the Cypriot legal system.

A significant additional limitation of course is the lack of an “innovation” culture for the majority of the young people in Cyprus for the reasons I have mentioned before. As Cyprus had its first University in 1991 people are still trying to understand the role of a University in today’s society. Research is still not clear for many people in Cyprus what it can achieve and what it can offer. As a result, young people have not grown up in a research , innovation and entrepreneurship environment and have a hard time understanding the process of translating an idea or invention into a product or service and the transformation of scientific findings into real benefit for the market, the economy and the society.

In Europe of course, innovation efforts had started in several countries in the 90s predominantly with strong efforts in England, Germany, Switzerland and Belgium that originated at Oxford, Cambridge, Catholic University of Leuven and EPFL. Today more and more Universities in Northern European countries are starting to generate revenue from the royalties that result from their patents.

In the institution of European Union, innovation has recently been incorporated into two major policy documents: the EU 2020 Strategy for smart, sustainable and inclusive growth, and the EU budget, Innovation is depicted as the core element in Europe 2020 strategy to preserve and improve Europe’s competitiveness and its ability to create jobs and to tackle societal challenges. The EU with its investments into Small and

Medium Size Enterprises (SME) innovation is aiming at accelerating company development and growth, from the very early stage to market introduction, with direct and indirect complementary support measures foreseen at every step of the way, in particular under Horizon 2020 and COSME, the EU Competitiveness and SME program. Whereas COSME focuses on providing growth finance for relatively mature SMEs, the development of better framework conditions for SME growth in the context of industrial change – through clusters and in sectors of strategic interest, like advanced manufacturing – and access to markets, Horizon 2020 offers a series of integrated measures aimed at supporting SMEs throughout the innovation cycle, in view of promoting their growth and development. The provision of financial support to SMEs' innovation projects through the SME instrument and to SMEs that are engaged in the context of research and innovation projects with other types of legal entities are stepped up, as the overall level of budgetary commitments to support these activities is increasing.

So as you see, Europe has been trying to implement the US and Japan model, and essentially to be able to obtain research money from the EU, every proposal has to be an SME driven proposal today.

Another European initiative is the European Institute of Innovation and Technology (EIT). This is an independent EU body aiming at enhancing Europe's ability to empower innovators and entrepreneurs to develop world-class solutions to societal challenges and creates growth and skilled jobs by nurturing entrepreneurial talent and supporting new ideas. In this way, the network contributes to the competitiveness of Europe, its

sustainable economic growth and job creation by promoting and strengthening synergies and cooperation among businesses, education institutions and research organizations. To boost Europe's innovation capacity, action is needed to overcome the fragmented European innovation landscape as there are other countries for many different reasons that have the same problem as Cyprus in their innovation landscape. This is where the EIT comes in. The EIT brings together the 'knowledge triangle' of business, education and research to form dynamic cross-border partnerships; Knowledge and Innovation Communities (KICs). The KICs essentially develop innovative products and services, start new companies and train a new generation of entrepreneurs and implant innovation in regional schemes. As a parenthesis here, I have to say that one of our academics, Prof. Alexandros Charalambides was designated by the Cyprus government as the representative of Cyprus in the Member State Configuration of the European Institute of Innovation (EIT). He is currently participating in the Climate-KIC, the EU's main climate innovation initiative. As a result, our University organized the regional Climate Launch pad that involved an intensive Boot Camp & follow-up Coaching Sessions for young people who were interested to start a green business.

In a competitive Innovation ECO System in any given country, the Technology Transfer Offices are necessary components for the successful implementation of the conversion of research and knowhow into marketable products and services. TTOs cost a lot of money as they offer legal advice, patent searches help with finding Venture capitalists to fund the marketable idea and the creation of spinoff companies. These

organizations provide services to Universities, Research Organizations as well as the private sector.

As Universities are one of the cornerstones of Innovation in the triangle of knowledge, many Universities around the world feature their own TTOs as technology transfer is now the most prolific revenue mechanism for every modern University.

The enhanced freedom of universities to transfer intellectual property (IP) to the marketplace through conventional market mechanisms such as licensing of patents and innovative strategies has resulted in growing expectations that technology transfer will generate even higher amounts of university revenue. Some good examples around the world of Universities with significant income from IP are:

Stanford University TTO that receives more than 100M/year, the University of California (UC Berkeley) TTO that has had income from licensing and patent rights \$95M last year and in Europe, the annual data for 2011 of EPFL TTO report a total income from licenses > \$50M Oxford and Cambridge in the UK also report income from licenses of more than 50M Euro per year.

Coming back to Cyprus. I now have to tell you some more positive things. Cyprus in the 5th 6th 7th EU framework programs and the H2020 program has had a great success as a country to secure a significant amount of money in EU funded research programs from the industrial sector and from the |University/Research Organization sector predominantly from

Univ. of Cyprus, Cyprus University of Technology, Cyprus Institute and The Cyprus Institute of Neurology and Statistics.

So our critical step here is to become competitive in the creation, protection and commercialization of IP and several major challenges exist in the Cypriot landscape. We are a very young country in research and we are currently building our research culture. There is a small critical mass of researchers, there is a small internal market and a very the low national R&D Investment. The R&D activity in the business sector is extremely successful in securing funds but this is done by a small number of businesses. All these lead to a low performance in relation to the production, patenting and exploitation of research results in comparison with other member states of the EU. Systemic deficiencies such as the lack of an integrated and consistent National Research and Innovation Strategy a national TTO office and sustained policy commitment and the lack of important innovation support structures such as Incubators, technology parks venture capitalist groups make the problem worse.

Furthermore, I have to add that until recently, the founding law of public universities was also barrier to spin-off creation. Fortunately, recent legislature initiated by the Ministry of Commerce and Industry, the Ministry of Finance and the Ministry of Education in collaboration with all public Universities was passed by the council of ministers and is expected to pass by the parliament in the near future that allows the Universities to create spinoffs.

Another positive initiative from the government of Cyprus was the

hiring of Oxford University Innovation Ltd (former ISIS Innovation) which is the Technology Transfer Office of Oxford University, following an international tender procedure, for the provision of consulting and coaching services to the Universities in developing their own IP policies.

Recently the government has proposed the development of a central National TTO to support Academic Technology Transfer to be hosted by the Research Promotion Foundation, which will provide support to the academic and research institutions in Cyprus in relation to the protection and exploitation of their research findings and intellectual property. The Central TTO will be complemented by Units within the major academic and research institutions, which will undertake basic technology transfer activities and facilitate the communication between the institutions and the Central National Technology Transfer Office.

The Cyprus University of technology has been a pioneer in establishing an innovation strategy and has developed Policies and Procedures how to protect Intellectual property and its basic Technology Transfer. The Office of Innovation and Technology Transfer (INTENT) was established in 2015 and provides an opportunity to the Cyprus University of Technology students faculty and staff to develop their ideas into products and exploit the results of their research.

The mission of INTENT, is to promote the transfer of CUT technology for Cyprus and EU society's use and benefit while generating unrestricted income to support research and education. INTENT receives CUT faculty, staff and students invention disclosures, evaluates disclosures for their

commercial possibilities, decides and files for patent, negotiates collaboration, technology transfer agreements and licensing, encourages the creation of startups and collects royalties and other funding from IP.

So to conclude, I have to say that higher education in Cyprus has made strides in developing Cyprus innovative capacity, but we still have a lot of work in terms of a consistent national framework for the implementation of the technology transfer policy.

Moving forward, the Cyprus University of Technology will continue to work collaboratively with our partners in higher education and industry to implement the national action plan, to support and nurture university-based innovation and entrepreneurship. We will be constantly looking for ways to connect our research and students' education to emerging industry interests and continue to engage collaborating established companies to be our licensing partners. Some additional actions for the future are offering internships and externships, sharing facilities with startups, such as accelerators, and creating venture funds and incentive programs funded by industry, all of which drive increased innovation and product development by university students, faculty, and staff. Our ambition is to significantly facilitate greater collaboration and innovation, by opening up our facilities, faculty, and students to businesses to ensure that the CUT becomes an important component in the development of a restructured economy for Cyprus.

I close my speech with a quote by the US President Barack Obama, in 2010
“The key to our success...will be to compete by developing new products, by generating new industries, by maintaining our role as the world’s engine of scientific discovery and technological innovation. It’s absolutely essential to our future.”

Thank you all for being here.