

Ceremony 2
Academic Oration
Monday 21 November 2011 at 1630hrs
JESUITS' CHURCH – VALLETTA

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I would like to start by extending my heartfelt congratulations to all of you graduands and your parents and loved ones – Congratulations - for all your own hard work which is today culminating in this happy occasion for you all, the University and indeed for Malta. Our country can feel proud and fortunate to have a much-needed new cohort of graduates in the many fields being represented here. We are today honouring postgraduates from the Faculty of the Built Environment, the Faculty of Engineering, the Faculty of Health Sciences, the Faculty of ICT, the Faculty of Science, and the International Institute of Baroque Studies. I am certain that behind your successes lie many sacrifices, a support system of families and friends, and difficult decisions about priorities. However, this is all behind you now. I hope that today you have all come to believe that it was all completely worthwhile. I congratulate you once again on your hard-earned success.

Allow me now to go back in time to 1997, that is, some 14 years ago, when as a returnee to the University of Malta, after a long stint abroad, I was on this same podium, although at a different venue, addressing the graduands of what was then the Institute of Health Care. I had then expressed my hope and faith that today's realities would indeed come to pass.

The Institute of Health Care was, in fact, conferred Faculty status last year under the title of the Faculty of Health Sciences. It has ten Departments, an increased number of full-time lecturing staff, new premises at Mater Dei with state-of-the-art teaching laboratories for the various health professions, and is responsible for producing graduates across the range of health care professions and disciplines, primarily to man Mater Dei hospital. It is with great satisfaction that I can say that the Institute and now the Faculty has responded to the needs of the country through the hard work of all Faculty members and the support of the University authorities and the Department of Health.

The Faculty of Health Sciences is now embarking on a new parallel journey – a journey which will consolidate our research efforts – an ambition we fully share with all Faculties, Institutes and Centres at the University.

As I did 14 years ago, I will share today my optimism and my views and hopes for the foreseeable future, but today restricting myself to the topic of Research.

Research is after all what makes true academics of us all, just as it defines a University and most importantly distinguishes it from other educational institutions. The vital link

between research and teaching should be cultivated actively. Most academic employment contracts require staff to undertake dual roles of lecturing and research on the premise that these are interlinked. Without research, which helps sustain the highest level of teaching required, a University is not such. This University has, over the past few years now, made more visible the research activities undertaken by members of staff, especially since Malta joined the European Union, a step which has made possible our participation in EU framework programmes, by no means an easy process.

In our pursuit of academic excellence, we face many challenges mainly because of lack of resources, and therefore participation in EU-funded programmes becomes vital. But this is by no means automatic.

One way of consolidating our research efforts and enhancing our chances of being successful in bids for EU funding is the creation of Centres of Excellence built on themes. The secret behind successful research in a small university is the concentration and collaboration of the best researchers at different stages of their career working alongside one other in a team effort which creates the milieu for the exchange of ideas that is so essential to achieving research excellence. This exercise can happen across faculties, institutes and centres, and is especially relevant in the sciences where critical mass and capacity are vital for the setting up of Centres of Excellence. Some key areas of research require multi-million euro facilities and it makes sound scientific and economic sense to provide such facilities centrally where collaboration between researchers in different departments and faculties. Potential users would benefit from being networked together to ensure that opportunities for collaborative use of facilities are followed through. A cross-departmental and interdisciplinary approach is more than just highly beneficial, but indeed necessary, and this not only for mega euro projects. The concentration of resources and sharing of equipment, together with the creation of an open research environment where ideas are generated and cultivated, and discussed by top researchers is definitely one step towards the successful creation of Centres of Excellence. The University can thus increase its research output, and research excellence defined by reference to the European and International levels. A later step might be that some such Centres would in time form part of a University of Malta Postgraduate School, by offering new interdisciplinary postgraduate and research degrees.

This has in fact already started to happen. One example is the inauguration of a new laboratory for biomedical engineering, and the subsequent creation of the Institute of Cybernetics within the Faculty of Engineering – other faculties involved are the Faculty of Medicine and Surgery, Faculty of Health Sciences, Faculty of Knowledge Science, among others. Also, an interfaculty laboratory of Biomedical Sciences is in the process of being built. This will house the many researchers from the various departments within the Faculty of Medicine and Surgery, the Faculty of Health Sciences and others. ERDF funds have been made available for these important initiatives.

It will be a great day indeed when the first cohort of postgraduate students emerges from such interdisciplinary institutes and centres.

I must return to the issue of funding. Modern research requires considerable funds. When I look back to the 80s, when as a young research fellow attached to a Research Institute in Cambridge, UK, we used to pride ourselves on the fact that our research costs were minimal. Our laboratory was a small extension set in the gardens of a big house which had been donated to the University to be used as a hospital for rheumatic diseases. We took a certain pride in performing minor miracles against the odds, through sheer determination and a commitment to excellence. Another feature of the times was that idealism was rife – biomedical research was solely for the good of humanity, ideas were exchanged freely between researchers. There was no patenting of ideas, no pre-conceived aim to set up companies - just sheer hard team work for the love of science, that helped keep us in employment as researchers and gave us great satisfaction from the knowledge that our research was helping to explain how disease develops and unlock the secret to a cure. Things have changed considerably now. Research has become very expensive. State-of-the-art equipment, which requires considerable funds, is a must to survive in a very competitive world, while, of course, the incessant desire for scientific discovery is still the main purpose of all university research efforts.

Once areas of excellence and related projects are defined and located then such areas should ideally be funded on a 3- to 5- year budgetary basis for medium- to long-term plans to be made possible, and to make the potential for outside funding and commercialisation a reality. This could follow a national policy by which the University would receive funds to manage 3- or 5- yearly budgets, thus making possible the funding of research projects. The most serious current obstacle is the annual funding process. The new system would allow for a strategic plan to be developed and acted upon by the University, and would encourage long-term projects, allocated on a competitive, open and meritocratic basis, to be properly funded for their duration. The award of scholarships to Ph.D. students, some funded by the Maltese government and others by the EU, is definitely helping University departments, but the creation of postdoctoral appointments linked to long-term projects is needed to boost the quality and relevance of university research.

An institutionalised research agenda, that including dovetailing with the national research policy, points more towards Applied Research, eg air pollution, climate change, water etc. However, this must never mean that Basic Research be sidelined, especially if there already are the germs of excellence to be found in that sphere. Indeed, we should always give prominence to Basic Research, which is after all the seed of Applied Research. The University should not be made by financial constraints to focus solely on current “hot spots”. There should be a sound, broad-based research capacity across all areas to be able to respond to future demands. The difficult truth is that an exponential increase in

research funds must be forthcoming, if the University is to take its place among its European partners.

This brings me to another issue – that of the time constraint. Conducting research of international standard requires period of uninterrupted time apart from financial resources. Research is not something one can do strictly on a part-time, couple of hours a day, basis, and this applies to all types of research but especially to science research. Some flexibility on teaching loads is an important part of research strategy. Of course, it is important for professors to teach, but to a lesser degree, and perhaps postgraduate students only. Some Faculties might opt for the Oxford model, a model that insists that eminent professors do some core teaching with undergraduates. The “one cap fits all” approach, however, needs to be avoided. Every case needs to be considered on its own merits.

Official university policy should continue even more to support quality of output and avoid the pitfall of going for quantity. International standard research requires time, but the system should become more flexible and allow those who can to do good research.

We must in addition continue to aspire to excellence in R&D and knowledge transfer. Business-University links are to be strengthened, and perhaps this still requires some soul-searching on both sides to determine how to improve the situation in Malta even further and then show more creativity in the finding of solutions.

One could start by acknowledging the main obstacles to healthy business-university collaboration. It could very well be that the challenge here lies on the demand side. But knowledge transfer activities are in essence “two-way” and depend heavily on interactions between business people and academics. To be sure, there is already communication between the two, as witnessed in the area of Engineering, ICT, Science and Pharmacy, but more is definitely possible. Speaking of partnerships, only last month the launch of the Life Sciences Centre was held. This is a Malta Enterprise initiative with collaboration with the University and Mater Dei Hospital - an initiative which promises to secure employment opportunities to science graduates, and stands to entice researchers back to the island who could use their skills for the benefit of the Maltese economy.

For such knowledge transfer partnerships, there should be more structures and incentives for individuals to move as freely as possible between the University and industry. Some academics already act as consultants to industry. Also, studentships offering placements in industry on the lines of those recently announced for Pharmacy students and Actavis are definitely an important step in the right direction. Such studentships provide the link between academia and industry, with knowledge transfer activities leading, wherever possible, to commercialization and IP. Such knowledge transfer is becoming part of the University’s strategic planning, since I am given to understand that the setting up of a knowledge transfer office is in the pipeline with funds obtained from the European Structural Fund. This calls for substantial, consistent and sustainable funding to support

knowledge transfer activities. Industry could contribute to new streams of business-relevant research funding.

Thankfully, perhaps, we have the external prodding of the EU (Barcelona) objective of increasing expenditure in R&D to 3% of GDP. Malta is still a long way from meeting this target, and more needs to be done to create a financial environment in which business will be encouraged to increase investment in R&D – and not just in-house. One of the key needs is to manage the process of innovation into production inside companies and the University can play a key role in helping this happen. Tax incentives would surely help.

In all this, it goes without saying, but perhaps it is better said, that the fundamental purpose and role of the University must continue to come first, even with all the above in mind, for education, knowledge generation and knowledge synthesis, and the questioning of propositions in science, society and the cultural domains are vital in producing a range of useful and productive citizens and a healthy democratic and values-driven society. The Arts and Humanities must also be given full play in this regard. It is, then, up to the Government and other players, working with the University, to create the ideal environment for the proper and fullest creation and utilization of knowledge in the quest for national economic growth and development. Economic success, social cohesion, an educated citizenry, and a good society depend on this great partnership.

Lastly, I exhort all you Graduands today to take your research experiences, at whatever level, with you as you go into the world of work, to continue to build up your knowledge and talents through the application of your research skills, and when you are fulfilled as citizens of this nation, to always remember your Alma Mater.