

## REPORT OF THE VICE-RECTOR (RESEARCH)

IN ITS VISION, STELLENBOSCH UNIVERSITY (SU) ENVISAGES BECOMING THE LEADING RESEARCH-INTENSIVE HIGHER EDUCATION INSTITUTION ON THE AFRICAN CONTINENT BY PURSUING EXCELLENCE IN ITS CHOSEN FOCAL AREAS, BY GAINING NATIONAL AND INTERNATIONAL STANDING THROUGH ITS GRADUATES AND RESEARCH OUTPUTS, AND BY REMAINING RELEVANT TO THE NEEDS OF THE COMMUNITY.

The University's excellence and leadership in its chosen focal areas were demonstrated by the output of its vibrant research community, which in 2010 comprised 10 044 postgraduate students (36% of the student body), 144 postdoctoral fellows and a body of 835 academics. The University is host to three Department of Science and Technology (DST) and National Research Foundation (NRF) Centres of Excellence, twelve SARChI (SA Research Chairs Initiative) chairs, a SANERI (SA National Energy Research Institute) Research Chair, the Harry Oppenheimer Chair in Human Rights and the SANRAL (South African Roads Agency Limited) Chair in Pavement Engineering. The University had 270 NRF-rated researchers in 2010, 14 of them A-rated and three P-rated. (A-rated researchers are regarded by their peers as world leaders, P-rated researchers as potential world leaders.)

In 2010, the official 2009 research output data received from the Department of Higher Education and Training (DHET) again confirmed SU's standing as the most research-productive academic institution at the national level. The weighted research output per SU staff member (journal articles, master's theses and doctoral dissertations) was 2,3 – the highest of all universities in the country for the third year running. In the four years to 2009 the average growth in research outputs at SU was 6%, with 2009 seeing a growth of 11%. What is more, there has been a significant rise in the number of publications in international journals and in the number of book publications recognised by DHET. In 2009, 69,8% of our accredited journal articles were published in international journals, and the DHET subsidy unit allocation to SU for books and chapters in books increased by 118%.

The relevance of the research outcomes is expressed in, for instance, the five themes and 21 initiatives of the University's HOPE Project, which seeks to serve the needs of the community of which we are part.

Overarching institutional support for the SU research community is provided by the Division for Research Development (DRD), the Postgraduate and International Office (PGIO), and the Library and Information Service.

### DIVISION FOR RESEARCH DEVELOPMENT

The Division for Research Development (DRD) is tasked with the institutional advancement, facilitation and support of research. One of the Division's main functions is to manage research funding: both externally sourced research funding, at the national and international levels, and research funding from partnerships with industry. The Division is also responsible for the formulation and implementation of policies that embody internationally benchmarked compliancy requirements for research; the aim here is to ensure ethical conduct of research and responsible management of research funds at SU. The Division also manages the dissemination of research information in various forms, including the reporting of research outputs to DHET for subsidy purposes.

The Division operates as four clusters with the following core functions:

- **Research Support** is responsible for the management of all internal and national research funding awards and grants (including the NRF), and for the support of the Central Analytical Facility. It also oversees the implementation of the institutional policy on research ethics and the management by the associated committees of the ethics clearance processes.
- **Research Capacity Development and International Funding** manages international research grants, the exploitation of international funding opportunities, and the facilitation of associated research networks. In addition, it manages all SU postdoctoral fellowships and oversees the development of the research capacity of SU staff through a structured research skills development programme.
- **Research Information and Strategy** is responsible for the management of research information, the promotion of the visibility of SU research through an annual research report, and the management of the NRF rating process. It is responsible, too, for the implementation of the institutional policies relating to research and for the facilitation and promotion of national research partnerships with a strong focus on the science councils and government departments. Finally, it is responsible for the advancement of the public understanding of science.
- The **Research Contracts** cluster manages all institutional research-related contracts. It also manages the THRIP research funding programme of the Department of Trade and Industry. In addition, it implements the institutional costing and pricing policy on grants and contracts, which includes providing support for the financial management of large research awards. Finally, it promotes strategic industry partnerships.

In 2010 the DRD sourced a significant amount of external funding from the Mellon Foundation to assist SU in achieving its goals for capacity development among young researchers. Firstly, that is, a joint grant of US\$800 000 was made to the DRD and the PGIO for postgraduate and postdoctoral bursaries. Secondly, a grant of US\$750 000 was made to the DRD for the establishment of a structured research mentorship programme. In addition, the DRD participates in a project to the value of €3 million funded by the European Union that is aimed at developing the capacity of research and innovation managers in Africa and the Caribbean.

A successful suite of skills development workshops was offered by the DRD, focusing on the development of generic research skills for postdoctoral fellows and academic staff. The annual institutional research report compiled by the DRD, *Research at Stellenbosch University 2009*, received the award for the best annual report in the 2010 MACE (Marketing, Advancement and Communication in Education) excellence competition.



## POSTGRADUATE AND INTERNATIONAL OFFICE

The Postgraduate and International Office (PGIO) was established in 2010 to support postgraduate studies and postgraduate student success in ways aligned to the institutional strategic goals. The PGIO thus aims to assist in increasing the number of postgraduate students and in enabling these students to complete their studies inside the minimum required timeframe. Its various sections are Postgraduate and International Enrolment, Postgraduate Student Funding and International Student Mobility; in addition, there is the Welcome Unit for international students and academics. Building on the former International Office structures, the PGIO seeks to expand support services to all registered postgraduate students in close collaboration and coordination with the faculties and the existing support functions.

In support of the institutional focus on student success, the PGIO made an inventory of postgraduate skills development opportunities. After international and national benchmarking the PGIO went on to develop its own package of services and initiatives, including a new virtual home for postgraduate students in the form of a dedicated postgraduate portal. This portal brings together the various services that postgraduates need in the course of their academic lifecycle, along with a web inventory of skills development opportunities and the on.track planner. This last is a tool to help master's students plan and structure their research projects by making full use of the mechanisms already in place at faculty level.

Thanks to a dedicated team involved in international student mobility, outgoing student mobility grew in 2010. This paves the way for a planned increase in especially postgraduate student mobility; mobility is a valuable dimension of postgraduate studies. Participation in summer and winter schools abroad increased; 51 students attended schools in Austria, Finland, Germany, France, Hong Kong, China and the USA. Through the Erasmus Mundus Action 2 projects (Stellenbosch is part of all three South African projects) and the Dutch SKILL programme, and with financial support from the University's own strategic funds, a framework has been created to enable more than 100 postgraduate students to study abroad for up to a semester while remaining registered at Stellenbosch University. Similarly, approval has been obtained for individual joint doctoral degree programmes with the *École Nationale Supérieure des Mines* in St Étienne (France), the *Vrije Universiteit Brussel* (Belgium), the University of Ghent (Belgium) and the *Friedrich-Schiller-Universität Jena* (Germany).

In 2010, 1 250 international students registered at Stellenbosch for non-degree purposes in a range of semester and short programmes, including our Winter School on Nation Building and Development. Two new short programmes for incoming international students have been developed: the North Carolina State University Raleigh Engineering students programme and the International Student Forum for Development.

The Postgraduate Student Funding (PGSF) section provides financial support for postgraduate students by administering

departmental and private bursaries, scholarships from national funding bodies (e.g. NRF, Medical Research Council) and substantial scholarships from the HB Thom Trust, Harry Crossley Trust and Wilhelm Frank Trust. R18,3 million was awarded to postgraduate students from central University funds, R2 million of which was earmarked for merit scholarships to support strategic research areas and to enable doctoral students to attend international conferences. R8,7 million was awarded as support scholarships based on financial need.

The Confucius Institute (CI) at Stellenbosch University celebrated its first year as part of the PGIO. Highlights included a Chinese New Year Festival, *tai chi* activities, a visit by Madame Xu Lin (Chief Executive of the CI Headquarters), and a visit by the renowned philosopher, Prof TU Weiming.

## LIBRARY AND INFORMATION SERVICE

The Library and Information Service consists of the central JS Gericke Library and the following five branch libraries: Theology, Engineering and Forestry, Music, Stellenbosch University Bellville Park Information Centre (USBI) and the Health Sciences Library.

The Library offers students, lecturers and researchers dedicated professional support for and services in reference, information and knowledge management. It also provides efficient specialist management of information resource collections (online and print).

The Library's mission is to provide the Stellenbosch University community with a world-class and innovative information service and learning space.

The highlights for 2010 include several key international events and collaborations, which emphasised the Library's strong leadership role at the local, regional and international levels.

The overlap of the Library's eleventh annual symposium with the Presidential Meeting in February of the International Federation of Library Associations and Institutions (IFLA) attracted much international interest and put the Library at the global centre of professional discourse. In all, 193 librarians participated in the symposium; they represented 21 different countries, including nine African countries and four of the five Nordic countries – Finland, Sweden, Denmark and Norway. The distinguished speakers included the Minister of Science and Technology, Ms Naledi Pandor.

The Library is proud to have successfully completed the construction of the Learning Commons and Research Commons in the JS Gericke Library. These contemporary learning spaces will offer specialised support and services to the University community and will encourage the development of information skills that support student retention and innovative research.

The University management has entered into a partnership with Elsevier, a world-leader in scholarly publishing. The aim was for the University to gain access to more journal and ebook content and activities that would support its research

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development agenda. Elsevier consultants ran several well-received workshops and presentations on campus. The key services and international expertise put at our disposal through the partnership with Elsevier mean that research support and development at Stellenbosch University are both benefiting significantly.

The acquisition of new electronic resources added considerable value to the University's academic and research programmes. The number of electronic journals rose from 43 800 titles in the collection in 2009 to 51 100 in 2010. Ebooks increased from 2 030 titles in 2009 to 7 600 titles in 2010. From 2009 to 2010 accessing of electronic journals and ebooks increased by 16,5% and 275% respectively.

SUNScholar, the University's institutional repository for research output by members of its research community, grew from 2 500 items in 2009 to 4 100 in 2010.

In October 2010, the Library facilitated the University's signing of the Berlin Declaration. The University thus signalled its commitment to share its research output with the rest of Africa and the world, and it has received wide international praise for this action. A seminar to commemorate the signing was hosted by the Library.

### CONCLUSION

The environment of the Vice-Rector (Research) remains committed to the University's vision. In support of the University's strategic goals the three divisions are working collectively towards rejuvenating and diversifying the research corps, towards strengthening the student support structures at the postgraduate level, towards securing sustainable resources and infrastructure for research, and towards broadening the University's knowledge base.



#### SU leaders honoured with National Orders

Mr Ernst van Dyk received the Order of Ikhamanga (silver) from President Zuma for his excellent performance in Paralympic sport and for being a role-model for all South Africans. The Order of Mapungubwe (bronze) was awarded to Prof Monique Zaahl, lecturer in Human Genetics in the Department of Genetics, for her contribution to genetics and her research on diseases linked to iron overloading. "I wasn't always the best in my class," said Prof Zaahl, "but I found my niche and built on from there. I believe that once you've found your passion, you're going to be successful."

