ANNUAL REVIEW

2005-2006

University of Wales, Bangor
A word from the VICE-CHANCELLOR

The period covered by this annual review has been one of significant development, and we are now well positioned to move forward against some very tough competition from other universities within the UK and internationally.

Together, we have achieved a tremendous amount over the last year. Reflecting on some of these successes illustrates just how far we’ve travelled in such a short period of time.

Excellence is the overarching theme of our strategic plan, and we are investing heavily to achieve our aims. By careful management we have improved the University’s financial position during the last year and this has allowed us to invest in key areas.

During the year we advertised for 50 new academics (including 23 professors) as part of a £10 million package to strengthen our position as a research university of international standing, and also provide high quality teaching to our students. I’m delighted to welcome those who have already joined us, and look forward to further appointments over the coming months.

Following a scrupulous year-long assessment by the QAA, the Privy Council have informed us that our application for Taught and Research Degree Awarding Powers has been approved. The powers will be formally granted once the Privy Council has approved the required amendments to the UWB Charter. This is a considerable achievement for the University, and marks another very significant milestone in our history.

We have brought our academic schools together by creating six new Colleges, which will become a focus for greater collaboration in many areas, but especially research and teaching.

One of the biggest challenges we face is in relation to our estate. Our staff, students and visitors all expect high quality buildings in which to work and study, and we’re already well on the way towards making our facilities fit for the future. A number of ambitious developments are currently taking shape around the campus. Further developments are planned over the next few years as part of an ambitious Estates Strategy which will play an important part in attracting new students, staff and business to the area as well as improving the built environment of Bangor.

During the year we have succeeded in winning funding for a number of projects, the most high profile being £7.5 million from the Higher Education Funding Council for Wales to develop a Research and Enterprise Partnership with the University of Wales, Aberystwyth and to lead the Welsh Institute of Cognitive Neuroscience with Swansea and Cardiff Universities.

As these brief highlights illustrate, we have achieved a great deal during the last year, but to remain successful we must continually change and adapt. Our goal is excellence and to achieve that we have to raise our sights, set ambitious targets and invest. We are doing precisely that, and by working together we shall succeed in making Bangor a truly world class University.
As part of the largest academic expansion for decades the University is appointing over 50 new academics, including 23 professors, in what’s been described as one of the most significant steps for Higher Education in Wales over recent years.

University Vice-Chancellor, Professor Merfyn Jones said: “We’re investing a total of £10 million over the next four years in these new posts which will strengthen our position as a research University of international standing and also provide high quality teaching to our students.”

The posts are across a range of disciplines, including Chairs in Environmental Genomics, Environmental Systems, Marine Biology of Coastal Shelf Seas, Materials Chemistry, Electronic Materials and Devices, Cognitive Neuroscience, and Creative Writing.

...investing in excellence
Looking to the FUTURE

Go-ahead for research partnerships
Over £7.5 million has been awarded to the University under the Higher Education Funding Council for Wales’s Reconfiguration and Collaboration Fund.

A joint Research and Enterprise Partnership between Bangor and Aberystwyth sees both institutions sharing £11 million, marking a major change in the scale, ambition and operation of each institution’s research activities. Initially the funding will support four research centres spanning both institutions. Additional funding will support a new, integrated service to jointly support and manage research and its use in enterprise.

A Bangor-led project with Cardiff and Swansea Universities to establish a Wales Institute of Cognitive Neuroscience has resulted in Bangor receiving £2m out of the £5.17m allocated. The Institute will pool resources and expertise within Wales, working not only with academia but also with industry and the health sector. This enables Bangor to continue to compete with the best in the world in relation to cognitive neuroscience research.

“A joint Research and Enterprise Partnership between Bangor and Aberystwyth sees both institutions sharing £11 million.”
Estateset for expansion

The University has begun a series of major developments in relation to its estate. Work has begun on Bangor Business School’s Management Development Centre, an exciting £14m project funded by the Objective 1 European Regional Development Fund, Gwynedd Council and the Welsh Assembly Government. New programmes are already under development prior to the Centre’s Opening in September 2007.

Locally-sourced oak now clads the exterior of the flagship Environment Centre for Wales alongside Deiniol Road. The £7m standard-setting building will house environmental scientists from the Natural Environment Research Council’s Centre for Ecology & Hydrology and the University and provide a focal point for environmental science research and training in Wales.

Added to this, the University has embarked upon a £35m expansion and remodelling of its Ffriddoedd Residential site. In all over 1,000 new rooms are to be added, and older halls removed in an exciting remodelling of the site to create a ‘student village.’

With a view to the future needs of the University and community, the University has developed an exciting Estates Strategy spanning the next decade, to deliver teaching and research in an estate which is versatile, sustainable and fit for purpose.

“Locally-sourced oak now clads the exterior of the flagship Environment Centre for Wales.”
Excellence in STUDYING

Education to their ears!
New technology is helping students with their studying. iPods and other MP3 players represent the latest technology to be adopted to enhance student learning by the School of Psychology, alongside video and interactive websites.

Students are downloading the extra information provided by some lecturers at the School of Psychology to support their learning.

"We’ve been making podcasts of lectures which include images used in lectures," said Jesse Martin, Teaching Fellow at the School of Psychology. “Students can store these in their MP3 players to listen to or watch at a later date to help with their learning. We haven’t yet found an example of another university using podcasts in this way.”

The podcasts are proving a hit with students. "The podcasts are a truly excellent idea. No matter how hard you concentrate in lectures you never take it all in. For the last few weeks the only thing I have been listening to on my iPod is neuropsychology lectures!" said second year student, Isla Watson from Southampton.

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Studying science through the medium of Welsh
The shortage of bilingual scientists in the workplace is an established fact. In an attempt to improve the situation, Dr Pryor Williams has been appointed as a Teaching Fellow under the Welsh Medium Development Centre’s ‘Mantais’ scheme, which finances the enhancement of Welsh medium higher education provision.

Prysor gained his first and doctorate degrees in Environmental Sciences at Bangor, and is now working at the School of Environment & Natural Resources. He is one of a number of staff extending Welsh medium provision within the University. Part of his responsibilities includes assisting the development of Welsh medium science and geography modules. He will also be offering Welsh medium tutorial classes and re-establishing pre-existing bilingual modules.

As the numbers of bilingual scientists are low, another element of his work is to co-operate with other universities in Wales to create a network of bilingual individuals in the field of environmental studies, to facilitate future development. Through the co-operation of other staff at the College of Natural Sciences, it’s true to say that there will be great opportunities for future students who wish to study science subjects bilingually at Bangor.
Excellent report for teacher education

The School of Education, a major provider of teacher training in Wales, and of Welsh medium teacher training in particular, has received an excellent report on the Standards and Quality in Initial Teacher Training following a year long inspection by Estyn, Her Majesty's Inspectorate for Education and Training in Wales.

The report awarded a Grade 1, the top grade, for the effectiveness of the teaching, training and assessment of trainee teachers. Estyn describe this as being "good with outstanding features". The quality of teaching at the School was found to be good or very good in over 80% of the training sessions observed. In the best sessions, the University's tutors were described as being very effective role models, who had consistently high expectations of trainees and provided an appropriate level of challenge.

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Excellence in TEACHING

A dramatic dissertation!
Druids, shipwreck survivors, refugees, lovers and children were all portrayed as part of an unusual promenade performance on Menai Bridge’s Belgian Promenade, based on history, mythology and folk tales of the area. The performance represented a ‘practical’ dissertation option chosen by three Creative Studies students. Final year students Linzi Hanscomb, Shane Whisker and Ailsa Lynn, wrote, directed, produced and promoted Straeon yr Ynys, Stories worth following.

“The show has given us an opportunity to put the drama skills that we’ve honed over the last three years into practice. We applied a variety of styles and approaches to the different stories within the show. Although we’ve enjoyed creating the show, I’m not sure that it’s any less stressful than writing an extended essay!” said Shane Whisker.

“These students have followed a course which has, by its very nature, included a great deal of practical work. This option enables them to be assessed for part of their final degree on their production,” said Professor Densil Morgan, Head of the College of Arts & Humanities.
Unique accreditation an asset
High calibre postgraduate psychologists are being attracted to study the UK's only British Psychological Society (BPS) accredited Sport & Exercise Psychology MSc degree. Taught at the School of Sport, Health & Exercise Sciences, the postgraduate degree is one way towards becoming a Chartered Psychologist and a full member of the BPS, the representative body for psychology and psychologists in the UK.

The MSc is one of five MSc courses currently offered among the range of postgraduate qualifications available at the School. The recent completion of the rigorous accreditation process has already proved worthwhile, with the accreditation attracting a wider cohort of psychologists to the School.

The School has three accredited BPS sports psychologists on the staff and are delighted to be the first School to achieve the accreditation in the new BPS Sports Psychology section - as sports psychology is a relative young discipline when compared to the discipline of psychology.

This development sits well with a desire to increase the cohort of postgraduate students within the University community.

'Skills Lab' for Nurses
Step through one door at the School of Healthcare Sciences and you could be forgiven for thinking that you'd stepped straight onto a ward at Ysbyty Gwynedd.

All the equipment you'd expect to find on the ward is there. The School's new 'Clinical Skills Lab' is to all intents and purposes, a 'ward', kitted out with the equipment that a healthcare professional would expect to use in conducting various procedures. The clinical skills that can be practiced include nutrition and feeding, assistance with personal hygiene, basic life support, urinary catheterisation, hand washing, wound management, suture removal, and manual handling.

The Skills Lab complements two others at the University's teaching sites as Ysbyty Glan Clwyd and its Wrexham campus.

"Equipped to the same specification as regional hospitals, our latest Skills Lab brings the theory and practice of modern nursing closer together, providing our students with an opportunity to practice their clinical skills in a safe environment", commented Ruhi Behi, Head of the School of Healthcare Sciences.
Groundbreaking RESEARCH

Outward-looking English

Dr Tony Claydon of the School of History, Welsh History and Archaeology is approaching the end of a research project on national identities in the early modern period, which has received major funding from the Leverhulme Trust, and the Arts and Humanities Research Council. In the resulting book for Cambridge University Press, and several articles, Tony Claydon has argued that the English of the century after the Civil War (1660-1760) were not the insular and xenophobic people assumed by most historians. Rather, they were profoundly concerned for the well-being of Protestants beyond their borders, and still felt part of a ‘Christendom’ which transcended denominational boundaries and embraced people in Spain, Italy and France as well as northern neighbours. The English were thus very good Europeans in this period: a fact which invites comparison with the situation today!

Staff at the School are delighted at the prospect of new collaborations offered by the Institute of Medieval and Early Modern Studies, one of the new research ventures between the universities in Bangor and Aberystwyth, which brings together scholars of the centuries before 1750 in all disciplines.

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Plastic Electronics
First it was surround sound, next will be surround video, all-round mood-lighting from electrically-controlled luminous wallpaper and electronic newspapers at breakfast. These innovations are being made possible by rapid developments in plastic electronics.

The Polymer Electronics research group led by Professor Martin Taylor in the School of Electronics is furthering the development potential of plastic electronics, exploring ways of reproducing the fine features needed to define electronic circuits by using, for example, the facilities of spin-out company UK-LMC (see page 16). Under Professor Taylor’s guidance, PhD student, Francisco Gil-Martinez has successfully used lasers to make all-plastic transistors in which the smallest feature (1 micron) is about 60 times smaller than the diameter of a human hair! In other projects, funded by over £0.5M from the Engineering and Physical Sciences Research Council, the polymer group has been looking into why plastic transistors can go unstable, as well as making and testing plastic solar cells.

Older People Research
In an innovative and inclusive approach to research, older volunteers within Age Concern Gwynedd & Môn became researchers for the Centre for Social Policy & Development, framing a questionnaire and gathering responses from elderly people in some of the rural communities of north west Wales. The aim of the Big Lottery funded project was to find out about the difficulties faced by older people living alone or caring for spouses or parents.

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Standard Measure for Welsh Vocabulary

Language experts at the School of Psychology are applying their expertise to develop tests that can be used by a range of professionals to assess children’s spoken Welsh. The tests will provide a standard by which to gauge the language abilities of Welsh-speaking children.

Teachers, speech therapists and others working with children currently have few standard measures for a child’s vocabulary or grammatical development in Welsh. They have to resort to using translations of English tests, which are not appropriate to the Welsh language, or to their own intuitions and ad hoc tools when assessing a child’s language ability - to assess for example whether that child needs extra assistance.

A £90,000 grant by the National Assembly Government enables Professor Virginia Gathercole and Dr Enlli Thomas to develop the range of tests for children between the ages of 3-15. These will take factors such as the language of the home and medium of education into consideration and will provide an average against which children can be assessed.

“The tests will provide a standard by which to gauge the language abilities of Welsh-speaking children.”


**Law at work for wildlife**

Despite being the University’s newest discipline, Bangor’s **Law School** has been called upon to provide international guidance.

Lecturer Richard Caddell specialises in international law, with a particular interest the legal protection afforded to whales, dolphins and porpoises and the strengths and deficiencies in the international framework to regulate these species. One key block in this framework is a regional treaty called the Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS), which has been operational since 1995 and addresses threats to such animals in these waters.

Richard Caddell was commissioned by the World Wildlife Fund to evaluate the progress made under ASCOBANS and present his findings to the fifth triennial Meeting of the Parties composed of delegates from eleven countries, as well as leading members of the UN Environmental Programme. In particular Richard’s paper examined the various initiatives advanced under ASCOBANS to date and analysed the difficult legal position in attempting to adopt conservative measures within an area under the exclusive jurisdiction of the EU. The paper made a series of recommendations that will now be incorporated in the Agreement’s triennial work programme.

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Playing our part in the COMMUNITY

Music for all!

The University’s Music at Bangor programme provides an important classical concert series for north west Wales, bringing a wide range of classical and contemporary music within reach of audiences in the region.

Although the series attracts a dedicated audience, it was decided that the profile of the Concerts should be raised, to bring the series to the attention of new audiences. After a concerted campaign, audience numbers increased by 50% during the season, with the Spring BBC National Orchestra of Wales Concert being a complete sell-out two days before the concert.

The series was also broadened to include a wider range of musical styles including folk and a capella singing, bringing new members of the community into contact with the Music at Bangor series and the University.

‘TOP’ Scholars highlighted in UK report

The University’s work to encourage a more diverse range of young people to consider a university education was highlighted in a report, ‘From the margins to the mainstream’, published by UUK, the umbrella organisation for universities in the UK.

Under the spotlight, and described as a model for good practice is the University’s innovative Talent Opportunities Programme (TOP), which aims to raise aspirations and awareness of higher education among young people aged 14-16 from communities with low traditional take-up of higher education.

The Report says of the TOP Scheme: “There is clear evidence that this programme is opening up opportunities in higher education to talented young people who, without the scheme, would not have gone to university. One of the strengths of the Talent Opportunities Programme is the nature of the relationship developed with schools.”

Eight secondary schools across north Wales are currently ‘TOP’ partners, with over 1,200 pupils involved in a range of activities run by University staff and students.

“There is clear evidence that this programme is opening up opportunities in higher education to talented young people...”
Volunteering in Hell’s Mouth!

Instead of watching international rugby, twenty six dedicated student volunteers from Student Volunteering Bangor, part of the Students’ Union, spent a Saturday cleaning shipping and tourist waste from Porth Neigwl or Hell’s Mouth beach, near Abersoch, one of north Wales’ most popular beaches.

The students cleared an amazing 25 bin bags of glass, plastic, rope, and polystyrene which could cause harm to people and local wildlife. This was one of numerous volunteering projects carried out by SV Bangor during the year.

“Student volunteering is a vital feature of the University community. Volunteering projects enable Bangor students to give something back to the community in which they live. Volunteering can provide students with very positive experiences and opportunities to develop crucial skills. I would like to record my thanks to the students who take part in Student Volunteering Bangor activities,” said Vice-Chancellor, Professor Merfyn Jones.
Playing our part in the community

A small service
One of eight UK centres established to assist industry in adopting micro and nanotechnology is based at the University’s School of Electronics. The UK Laser Micromachining Centre or UK-LMC, is a spin-out company capitalising on ten years of expertise at the School and is also a recognised UK national Centre of Excellence.

 Barely a year since its formation, the UK-LMC has met all its performance targets, providing rapid turnaround and a confidential service to high tech companies. The company is rapidly becoming the leading UK provider of laser micromachining, with a growing international reputation.

Advantages for local companies
The School of Modern Languages has entered into a fruitful working relationship with major Welsh media production company, Ffilmiau'r Nant. The company, which produces familiar Welsh programmes, is working with the School on a PhD project which centres on developing the company website into a multi-lingual marketing tool. The project is one of many at the University financed by an Objective 1 bid to the European Social Fund.

Bangor graduate, Tegau Andrews, is using the project to examine issues surrounding the translation of web-based material from and into Welsh, an area which is of increasing importance for Welsh companies in a European market. Tegau is well-equipped to undertake such a study with an admirable command of six European languages! Already a native speaker of English, Welsh and Irish, she graduated in 2005 with a first class degree in French, Spanish and Italian. The School is particularly keen to develop this area of Modern Language studies and is planning a new MA in Translation to develop further links with industry, both locally and further afield.

“UK-LMC is a spin-out company capitalising on ten years of expertise at the School.”
Another Addition to the Technium Network
Wales’ latest Technium, Technium CAST is already proving its worth, attracting innovative companies who are creating new high skills, high value jobs.

Technium CAST was launched in May. Located on the outskirts of Bangor, Technium CAST is a joint initiative between the University and SERCO, with funding from the Welsh Assembly Government and EU. The project aims to maximise the technological advances of the University, uniting academia with commerce, to mutual advantage.

CAST focuses on two principal areas; R&D in two technologies, namely visualisation and communications, and economic regeneration.

At the launch, the £17.8 million next generation software and visualisation technology centre announced a partnership with IBM to provide state-of-the-art advanced software and visualisation technology facilities. This investment will provide a network development environment for the School of Computer Science and the University to attract researchers, students and new business to the area.

“The project aims to maximise the technological advances of the University, uniting academia with commerce, to mutual advantage.”
While others debated the issue, Bangor became the first university in Wales to impose a total ban on smoking in all University-controlled buildings and areas.

Dr Anita Malhotra, School of Biological Sciences, recently obtained a Royal Society International Joint Project grant to further research collaboration into pitviper systematics and biogeography in China. This will fund exchange visits between Bangor and Yibin University, Sichuan Province, China over the next two to three years. Bangor has already played host to Yibin’s Dr Guo Peng between November 2005 and September 2006.

Professor Nigel John brought an international award to the UK for the first time. Prof John was awarded the 2006 Satava Award, which recognises and rewards unique vision and commitment to the improvement of medicine with the use of advanced technology. Professor John leads the High Performance Visualisation and Medical Graphics research group at the School of Computer Science.

A successful International Evening was organised by the Student Services Centre as part of the Students’ Union Diversity Week. In another event, the University’s international student community met with the Right Hon Hilary Benn MP, Secretary of State for International Development. He later visited staff and students at CAZS Natural Resources.

The University dramatically improved its position in the Guardian University Guide by 30 places. The league table reflects quality of teaching and student experience, and placed the University 38th of 122 institutions in the UK.

Over £40,000 in Scholarship prize money was awarded to students embarking on their courses at Bangor.
Rosemary Cripps, a Marine Biology and Oceanography student, was awarded the Llew Rees Memorial prize; awarded to a student who has contributed to their sport at a national and university level. Rosemary’s chosen sport is kayaking, and her rise has been meteoric, having only begun serious competition just over a year ago.

A short film by two Bangor students, Sarah Louise and Zac Halbert, won a prestigious Ffresb Award for the Best Welsh Language Film. Ffresb showcases, celebrates and inspires students currently studying moving image degrees in Wales. The pair also had another film premiered at Barcud Studio, Caernarfon during the year.

Members of Bangor’s Mountaineering Society (BUMS) climbed to victory in the British Universities Sports Association Climbing Championships by getting the highest overall score. Bangor fought off stiff competition from 83 teams to grab the top spot in the mixed teams category.

In a paper published in the American Naturalist, Dr Daren Croft of the School of Biological Sciences and a research team from the University of Leeds suggested that female guppies (a popular aquarium fish) might risk their lives to avoid too much attention from males.

Neuroscientists at the School of Psychology successfully combined two different methods of measuring brain activity to develop a new means of identifying the specific area of the brain responsible for a particular function. The new method identified the site of short term memory processing and was reported in one of the world’s largest scientific journals, the Journal of Neuroscience.

Ian Gregson of the School of English rubbed shoulders with giant of contemporary poetry, Seamus Heaney, as a short-listed nominee for the Forward Poetry Prizes. Ian Gregson’s Call Centre Love Song was nominated in the First Collection category.
Honorary Fellowships are awarded to individuals who have made a great contribution in their chosen field and have a close link with the University, the region or Wales. Fellowships were bestowed on the following:

- **Elinor Bennett**, Harpist, for services to Music;
- **Goronwy Cleaver**, Managing Director Kroll (Cayman Ltd.), for services to the development of Law at Bangor;
- **Professor Sir Richard Friend FRS**, Physicist, for services to science;
- **Dr Raymond Garlick**, poet and former Bangor student, for services to literature (received on his behalf by his son, Iestyn Garlick);
- **Professor Russell Jackson**, Director of the Shakespeare Institute, Birmingham University, for services to the study of literature and film;
- **John Walter Jones OBE**, Former Chief Executive Welsh Language Board, for services to the Welsh language;
- **Hywel Williams**, historian, for services to history and journalism.

Eight lecturers were awarded Teaching Fellowships during the summer’s Degree Ceremonies, reflecting an increase in nominations received from lecturing staff and students. Teaching Fellowships acknowledge outstanding teaching and student support. The eight were:

- **Dr Pam Macdonald**, of the School of Linguistics & English Language;
- **Dr Carol Tully**, School of Modern Languages;
- **Dr Nia Whiteley**, School of Biological Sciences;
- **Dr Graham Clarke**, School of Healthcare Sciences;
- **Dr Bianca Ambrose Oji**, School of Environment & Natural Sciences;
- **Dr Enlli Môn Thomas**;
- **Dr Jesse Martin**, School of Psychology.