The University’s Silver Jubilee

Below: Tony Kelly and Peter Leggett cut the celebratory cake marking the University’s Silver Jubilee and the centenary of the laying of the foundation stone of Battersea Polytechnic.

Right: Physicist Alf Adams (left), Tony Kelly and Gwyn Brown, Dean of International Students, with the flag that marked the Queen’s Award for Export Achievement in April 1991. The Award recognised the University’s overseas earnings from teaching, advanced technology-transfer contracts and research programmes.

Left: A history – Surrey: The Rise of a Modern University – was published to mark the Silver Jubilee. Its author, Roy Douglas, a noted historian of 19th - and 20th-century politics, taught at the University and at Battersea for thirty-five years.

Bottom right: The University’s honorary doctors pictured with the Chancellor and Vice-Chancellor in Guildford Cathedral.
The University reached its twenty-fifth anniversary year in good heart. A decade of hard work was now beginning to reap its rewards. Student numbers were rising year by year, and in 1991/92 passed the 5,000 mark for the first time. The proportion of the University’s income generated by research and contracts was increasing steadily. In 1990 this income represented 23.4 per cent of total recurrent income – only at Oxford, London and Cambridge was the proportion higher. The Research Park was flourishing, and so too were the University’s satellites; the fifth was launched in July 1991.

Tangible acknowledgement of the University’s success in pursuing its aim of providing ‘an enterprising knowledge and ideas base for wealth-producing commerce and industry’ came in several forms. In April 1991 the University was awarded the Queen’s Award for Export Achievement in recognition of its overseas earnings from teaching, advanced technology-transfer contracts and research programmes. The Duke of Kent, the University’s Chancellor, presented the award on behalf of Her Majesty The Queen when he visited the University on 5 July to preside over the degree ceremonies. Six months earlier a Sunday Times survey had shown that Surrey was the most successful university in terms of graduate employment; less than 1 per cent of Surrey graduates were still seeking a job six months after graduating. Most important of all, the 1992 Research Assessment Exercise clearly established Surrey as a successful research-active university. Two areas – Electrical and Electronic Engineering, and Toxicology – received the top quality rating (5, indicating research of international excellence), and twelve other areas were judged to be carrying out research of national excellence (4).

The first royal visit

The high point of the Silver Jubilee year, 1991/92, which also marked the centenary of the laying of the foundation stone of Battersea Polytechnic (see page 172), was the visit by Her Majesty The Queen on Friday 20 March 1992 – the first visit by a monarch to
either the University of Surrey or Battersea College. The day was a full one, and gave the Queen a comprehensive overview of the University’s work. First of all, the Queen met staff and students of the new Centre for Satellite Engineering and switched on a specially designed hologram to inaugurate the Centre. She also received a message from one of the University’s satellites and exchanged messages with President Chiluba of Zambia. Leaving the Centre, the Queen walked through Senate Square and the Forum to the Great Hall, where she toured an exhibition of the University’s work. Among the projects that caught her attention were contact lenses for horses (developed by the Department of Chemistry) and natural, environmentally friendly antibiotics to protect seeds (School of Biological Sciences). After a lunch hosted by the Chancellor, the Queen attended a Service of Thanksgiving in the Cathedral, which was packed with students, staff and friends of the University. She then went on a walkabout, giving members of the Guildford community as well as staff and students another opportunity to greet her. The Vice-Chancellor, Tony Kelly, expressed the feelings of everyone who had participated when he summed up the visit: ‘Today has gone superbly well. Everyone has done their best to make it a happy day, and I think Her Majesty thoroughly enjoyed it.’

**A new Vice-Chancellor**

After nineteen years as Vice-Chancellor Tony Kelly retired on 30 September 1994 - though the concept of ‘retirement’ hardly applies to a man of such intellectual vigour - to return to research at Churchill College, Cambridge. He had guided the University through some of its most difficult years; he had conceived the idea of the Research Park and seen it grow to fruition; and he had been rewarded, during his last years at Guildford, by the University’s increasing academic reputation and financial strength. Among many tributes, perhaps the most significant came from Professor Graeme Davies, Chief Executive of the Higher Education Funding Council for England; speaking at a formal dinner held in honour of Tony Kelly and his wife Christina on 20 July, he said of the Vice-Chancellor that:

> [He] has had the vision to set about one of the most difficult tasks in higher education — to change irreversibly the culture of an institution. This requires adherence to a carefully thought through long-term strategy. It is my judgement that during the thirty years since the Robbins Report only two of the enhanced status universities [the former Colleges of Advanced Technology] have made it into the top grouping of our best research universities. These are Surrey and Bath. This has been achieved... through a long-term relentless pursuit of research excellence [which has been] led with single-mindedness of purpose by Professor Kelly.

Different times require different leaders, and for the new Vice-Chancellor Council sought a scholar of international standing, who could guide the University through the increasingly complex relationships between government and higher education, and who could also exploit the University’s collective expertise in the world beyond Stag Hill. There was considerable competition for the job. The candidate selected,
The first visit to campus by Her Majesty The Queen, 20 March 1992
Professor Patrick Dowling, came to the University after long service at Imperial College, London. A distinguished structural engineer, he had been British Steel Professor of Steel Structures since 1979 and Head of the Department of Civil Engineering since 1985. He also had significant research expertise, had hands-on experience in major construction projects, including North Sea oil platforms and the Thames Barrier, and had long played an active role in the professional and academic associations of engineers. Alongside his world-class academic profile (which he has maintained at Guildford through continuing involvement in research), he had gained considerable experience of strategic planning at Imperial College. Above all, Patrick Dowling possessed the essential qualities of leadership: belief in the University; the vision, strategic skills and determination required to move the institution forward on many different fronts simultaneously; and the personal qualities necessary to empower and enthuse colleagues at every level to contribute to the University’s development and success.

The changing context of higher education

More than ever before, universities became subject to fluctuations in government policy throughout the 1990s. Declining funding was the main issue. Between the mid-1970s and the mid-1990s, while public funding for higher education increased in real terms by 45 per cent, the number of students more than doubled, and the unit of funding per student fell by 40 per cent. Public expenditure on higher education, as a percentage of gross domestic product, remained static during this period. Funding fell particularly sharply from the late 1980s onwards. At first, universities were able to sustain their income by admitting additional students in line with the Government’s de facto policy of increasing the participation rate: the number of full-time students in higher education doubled between 1988 and 1994. Surrey was no exception to this trend, although the increase was slightly smaller than the national average – from 3,006 full-time undergraduates in 1988/89 to 4,459 in 1994/95, a rise of just under 50 per cent. In 1993, however, the Government capped any further growth in student numbers (at Surrey undergraduate numbers remained level, at just over 5,000, from 1995/96 for the rest of the decade). This decision had major financial consequences for universities, especially since the Government withdrew almost all funding for capital expenditure, and also implemented a further reduction in funding over the next three years.

This was the difficult situation confronting Patrick Dowling as he took up the vice-chancellorship. The need for a mechanism to allocate resources equitably across the University had already become apparent in the early 1990s. This was one of the main developments initiated by Professor Peter Butterworth after he joined the University in 1990 as Senior Pro-Vice-Chancellor, although his work did not come to full fruition until after Patrick Dowling’s arrival. The Resource Allocation Method (RAM) evolved by
Patrick Dowling had worked on major construction projects such as the Thames Barrier.

Professor Dowling meets the Queen at Buckingham Palace to receive The Queen’s Anniversary Prize for Higher and Further Education. Professors Martin Sweeting and Barry Evans were also present.

Professor Dowling with Albert Reynolds, the former Irish Prime Minister.
Peter Butterworth was designed to provide a structured and transparent process for allocating funding to Departments (and later to Schools). Peter Butterworth explains:

> The tuition fee received for each individual student of course follows him or her to the School concerned. Similarly, research grants are specific to a particular School. However, the University also receives a substantial block grant from the Higher Education Funding Council for England [HEFCE]. This grant can be used as each university considers best to support its teaching and learning and its research activities, and is therefore a major resource for sustaining and improving the quality of teaching and research and for developing individual specialisms and centres of expertise. At Surrey the HEFCE block grant, which represents roughly 25 per cent of total income, is a vital factor in enabling the University to plan ahead and to establish a distinctive profile.

The complex calculations that underpin the RAM allow a fair allocation of the entire grant to Schools. Schools in turn pay, on a formula basis, an infrastructure charge for the services – the registry, library, computing, and other administrative and support operations – that the University provides centrally. The model Peter Butterworth developed proved robust and flexible, and was able to accommodate without difficulty changes in funding arrangements, such as those that followed the introduction of tuition fees paid directly by students (see page 107).

At the same time Patrick Dowling created a Planning Department that introduced an effective annual planning academic process based on rigorous management information. The formation of Schools (twelve initially) in 1997 provided a more responsive structure for forward planning than the previous system of very large faculties and relatively small departments. As far as possible, planning is School-based – i.e. it is ‘bottom-up’, reflecting the belief that Schools understand the changing trends in their own subject areas and how best to respond to them, whether it be through new undergraduate or postgraduate courses, building new partnerships with industry, or developing new areas of research expertise. Planning and financial devolution to the Schools does, however, impose considerable demands on them, and the Schools have had to respond to this by extending their leadership and management skills; the roles of the Head of School and of the School Manager have become increasingly important.

While the Schools are the engines of the University’s development, the University’s central management retains a crucially important strategic role in defining the University’s overall academic direction, responding to external initiatives, and ensuring that the plans of individual Schools respond to the University’s broad strategic guidelines. The introduction of structured academic planning linked to financial planning was largely the responsibility of Patrick Dowling and Peter Butterworth, supported by Wyn Davies, the University Secretary and Registrar, who joined the University in 1992 from the Department of Education and Science and introduced greater management control in running the central administrative services. A central strategic development fund enables the University to initiate new developments and to support strategic initiatives that are beyond the financial scope of individual Schools. The extension of the scope of law studies in the
School of Language, Law and International Studies is one example; another is the introduction of a virtual learning environment in the Surrey European Management School.

Soon after arriving at the University, Patrick Dowling launched an ambitious process of discussion and consultation to reach a new Vision Statement. He explains the background to his thinking:

*There is a danger in any institution that new developments and new areas of work will be taken on ad hoc, without stopping to consider whether they are really important in the long term. We needed to work out where we are going as an institution, how we see ourselves, and how we present ourselves to the world outside. In other words, we needed to decide, collectively, what makes Surrey unique and special, what distinguishes us from other universities. Doing this – and I tried to get everyone in the whole University community involved – would give us a focus and direction for our future development in both our internal planning and our external relationships.*

The document that emerged two years later contained a concise definition that, by eschewing the high-flown and imprecise vocabulary that can sometimes accompany such statements of corporate intent, neatly crystallised the University’s core values:

*As a university of real international standing, our vision is to work in partnership with industry, commerce and the professions, as well as with other institutions, for the benefit of the world. We will achieve this goal by providing scholarship attuned to the particular needs of our technological society, by developing leading-edge research and by creating a rich and varied learning environment for our students.*

The statement also set out four principles on which the vision is based, and these serve to demonstrate the way in which the University aims to develop:

- Working for the world
- Taking the lead in research
- Enriching the value of learning
- Building productive partnerships.

Four years on, Patrick Dowling says that ‘the vision statement has already proved its worth as a key reference point for important strategic decisions.’

At the same time a corporate identity was created for the University under the UniS logo, which appears on all corporate documents, signage and so on. Patrick Dowling explains:

*We needed to be more recognisable as a single institution rather than as a collection of disparate units. We also needed to make a more up-to-date impact that would demonstrate that our focus is firmly on the contemporary world, but that we remain proud of our historic roots. The combination of the clean lines of the modern UniS logo with our traditional coat-of-arms, which also refers back to our origins in Battersea, achieves this.*
Students model the new corporate identity on the Geodesic Dome.
International brand consultants Wolff Olins played an important role in developing both the Vision Statement and the visual identity, which itself was the work of Pentagram, the distinguished design consultancy.

Challenges multiplied during the late 1990s. The Dearing Committee (formally the National Committee of Inquiry into Higher Education, chaired by Sir Ron (later Lord) Dearing) published its report in July 1997, just two months after the general election in which the Labour Party won a landslide victory. But any hopes that the new Government might be more favourably disposed towards higher education were soon disappointed. The previous Government’s expenditure plans were to be maintained, which meant a continuing decline in the unit of funding - 6.5 per cent over the two years 1998/99 and 1999/2000 - despite the Dearing Committee’s observation that a reduction of this scale would damage both the ‘quality of the student experience’ and the ‘research base’. Although there has been additional investment in higher education since 1997, from which Surrey has benefited considerably, this has been linked either to specific initiatives or to specific expansion schemes; core funding for existing teaching and research has not increased.

Nor did the Government accept the Dearing Committee’s recommendation that ‘maintenance support for students’ should be improved. Indeed it moved in exactly the opposite direction, replacing student maintenance grants with a system of student loans and introducing, in 1998, tuition fees paid directly by students (or their parents) rather than by their local education authorities. This proved something of a disincentive to students to embark on higher education. The number of UK undergraduate university applicants fell by 2.7 per cent in 1998 over the previous year, and by a further 0.8 per cent in 1999, although applications have since recovered. Universities increasingly found themselves competing among themselves for students, a situation that is likely to intensify when the restrictions on the numbers of students each institution may recruit are lifted in September 2002. This will allow the stronger universities, and the stronger subject areas within individual institutions, to build up undergraduate numbers and to enrol the more able students, while the less popular universities will find recruitment more difficult. For the first time ever, the supply of places in higher education will exceed demand. This will force universities to look even more closely at the whole student experience that they offer - at the quality of their teaching, student support services, accommodation, library, IT, and leisure and sporting facilities.

The new Government also set important national targets for higher education. In 1999 about 72 per cent of young people from social group A (professional) were studying in a higher education institution, in contrast to about 13 per cent of those from social group E (unskilled). The challenge to universities is to narrow the participation gap between the most and least affluent groups and to improve the participation, retention and progression of specific social groups. In the words of Estelle Morris, Secretary of State for Education, ‘I want to end the link between social class and educational attainment... Universities are not the birthright of the middle classes.’ (The Vice-Chancellor outlines the University’s commitment to widening participation on page 10.)

This, then, was the external agenda facing the University of Surrey during the late 1990s. The rest of this chapter outlines the many ways in which the University responded.
One important step was the realisation that the University needed to strengthen its appeal to students by broadening its portfolio of courses. Even in so affluent an area of the UK as the south-east, undergraduate students are increasingly choosing to study in their local region. The days when significant numbers of students travelled from one end of the country to the other to study have vanished; now the typical ‘travel-to-study’ area is about 100 miles. In 2001, 83 per cent of the University’s UK-domiciled student population came from London and the south-east; a recent survey showed that 62 per cent of young people living in Surrey study in the south-east, 21 per cent in Greater London, and only 17 per cent in the rest of the UK. Changes designed to make the University’s curriculum more attuned to the subject preferences of local students include developing law-related degrees in the School of Language, Law and International Studies; expanding the number of students in computing and creating a new course in computing and communications; launching a new undergraduate course in generic business management in the School of Management Studies for the Service Sector; expanding nursing places in the European Institute of Health and Medical Sciences; and creating a single new School of Engineering that will produce engineering graduates better equipped to meet the needs of industry in the 21st century. Joint courses, such as financial mathematics, and engineering and business, will also help to meet the needs of the London (and especially the City) job market.

These changes are designed not only to make the University more responsive to the preferences of potential students but also to help it to achieve financial robustness. These are also the aims of the three major strategic reviews initiated during 2001 into the future academic strategy and shape of the University, the University’s senior management and decision-making structure, and the effectiveness of the support services and administrative processes. The main recommendations of the first of these, the Academic Strategy Task Group, include the reorganisation of the University into a smaller number of larger Schools; the creation of a coherent strategy in health and medical sciences so as to forge stronger partnerships with the NHS; a greater focus on interdisciplinary research and teaching; and a broader and more pro-active approach to developing teaching methods and technologies that will lead to more effective learning.

Local and regional partnerships

When he arrived in Guildford in 1994, Patrick Dowling set himself the task of rekindling relationships with the town and its citizens. The enthusiasm and pride with which Guildford had welcomed the new University in the late 1960s had dwindled. Although the University and the Research Park were making a substantial contribution to the local economy, both ‘gown’ and ‘town’ lacked a sense of common identity. Nor was the potential of the University to contribute to the development and quality of life of the local community being fully realised. David Watts (who had succeeded Eric Twyford as Chief Executive of Guildford Borough Council in 1984) recollects that ‘there was a feeling in the town that the University was up there on the hill, rather remote and self-contained and divorced from the life of the town.’

Patrick Dowling changed all this, becoming one of the University’s principal ambassadors to Guildford. He is active, for instance, in the work of the Cathedral and
Guildford’s theatres, he has supported the town’s two (sadly unsuccessful) bids for city status, and he encourages his University colleagues to contribute as well. (His sense of fun and enjoyment of life have helped enormously - he has, for example, willingly dressed up as a prisoner, complete with ball and chain, in aid of charity, and joined staff and students in the ‘Giant Jump,’ designed to explain the science of seismology.) The result is, according to David Watts, ‘a much greater sense that the town and the University are equal partners. Relationships are now very cordial and close, and have become increasingly so during the last few years.’

Speaking at the annual dinner of the University and Guildford Borough Council one year into his job as Vice-Chancellor, Patrick Dowling described the relationship between the University and the Borough as a ‘strategic partnership based on mutual understanding and interest’. This partnership, he said,

[is] crucial in meeting the challenges presented by an era of rapid change, particularly in education and business... It was a shared vision which originally brought [the] University to Guildford, and our predecessors worked well together with a view to securing the long term future of this area... It is acknowledged that staying at the forefront of science and technology is vital to ensure competitiveness in the global economy. Working together - the Borough, the University, the business community - we can create a force for innovation which will give Guildford a pole position within this new business environment.
Guildford has been rapidly transforming itself into a regional capital - an economic, commercial and cultural centre for Surrey and the surrounding counties. The establishment of the Government Office for the South East in Guildford in 1995 and, more significant in the longer term, the decision by the new South East England Development Agency (SEEDA) to locate its headquarters in the town were soon to make Guildford the regional capital for government and administration as well. The new Labour Government gave a high priority to regionalisation, and Guildford became the hub of a range of national and regional initiatives and agencies designed to promote economic development in the south-east through partnerships between public-sector agencies, private companies and institutions of higher education.

The University has played an important role in shaping the regional economic strategy and as an agent of economic growth. The University is an active member of the Surrey Economic Partnership, whose aim is to maintain Surrey’s leading position in the regional economy, and played a leading role in the formation of Higher Education South East, which helps the twenty-five higher education institutions in the region to realise their potential contribution to the economy and society of the south-east.

The University is also closely involved in activities designed to achieve economic growth. The Business Skills Unit (BSU), funded by the Higher Education Funding Council’s HEROBAC scheme (Higher Education Reach Out to Business and Community), provides a valuable interface between business and the University. Its role is to identify the skills and training needs of business, especially small and medium-sized enterprises, and to find ways in which the University can meet them through courses delivered on or off campus or as distance-learning packages and through specialist consultancy expertise. The BSU now forms part of UnSdirect, which provides the interface between the University’s academic work and the business community. The aim is to make the University the first port of call for businesses in the south-east that require research, training or consultancy and also to develop an entrepreneurial culture within the University, encouraging academic staff to exploit the commercial potential of their work. UnSdirect’s many activities include an Innovation Forum, which facilitates networking between the University and business via an annual programme of stimulating interactive seminars, and a Higher Education Innovation Fund Business Hatchery, designed to assist nascent entrepreneurs to bring knowledge-based business ideas to market. UnSdirect also has substantial venture capital funding available to assist spin-out businesses as a result of the University’s successful bid (in a consortium with Brunel University, Royal Holloway University of London, and Reading and Sussex Universities) in the 2001 University Challenge competition organised by HEFCE and the Department of Trade and Industry.

In 1991 the University founded, with Godalming and Farnham Colleges, the Surrey Higher Education Compact. John Hobrough, Dean of Students and Director of the University’s Educational Liaison Centre, explains the thinking behind the venture:

We realised that we needed to create ‘progression routes’ to university - in other words to ease the path for students with the aptitude to study for a degree but who would not succeed in getting to university by the conventional route. To begin with
this was mostly for personal reasons, but it soon became clear that even in prosperous Surrey there were a number of disadvantaged young people in socio-economic terms. In many ways the barriers to continuing to study were even greater for them here in Surrey than in London and other big cities, where the problem was recognised and a variety of different access routes were being established.

The Compact expanded rapidly. The original partners were soon joined by twenty other sixth-form and further education colleges in Surrey and the surrounding area, by thirty-five schools and by a further six higher education institutions: Farnborough College of Technology, Surrey Institute of Art and Design, North East Surrey College of Technology (NESCOT), Royal Holloway University of London, St Mary’s College, and the University of Surrey Roehampton. Every student involved in the Compact is guaranteed an interview for his or her higher education place, and, if this seems appropriate, is given specially adjusted entry targets. In 1991 just two students from all seven sixth-form colleges in Surrey enrolled at the university; ten years later 11 per cent of the entire first-year intake came from the Compact community. John Hobrough describes the Compact as a ‘community of learning’. Staff development activities bring together teachers from higher and further education and from schools to share expertise, and young people benefit from a variety of outreach activities, such as residential taster conferences.

This substantial achievement meant that the University and its sister-institutions were well placed to respond to the Government’s drive in the late 1990s to widen participation in higher education. The Compact community, joined by the University of Reading and by Kingston University, successfully bid for funding to develop a regional ACCORD, which is designed to build and recognise progression routes into higher education on a regional basis. The ACCORD partnership has been active in regional research and has contributed to national thinking on the widening participation agenda. Sharing practice within the partnership has also supported the strategic planning of the individual institutions involved, and it is expected that the partnership will continue to help to achieve the expected targets within the region.

Alongside the Compact, the University runs two imaginative mentoring schemes. Schools Without Walls organises a small number of University students to support Guildford sixth-formers who are themselves working in primary schools. In a larger scheme, which also includes the Woking and Aldershot areas, University students commit to spending two hours a week in local schools (mostly primary, though some secondary schools are involved) working with individual pupils. John Hobrough points out that this is very much in the Surrey tradition of volunteering.

The students are carefully monitored, and receive accreditation, so they finish up with something to put on their CV, it is true. But we ask for a significant time commitment from students, and most of them find the experience rewarding in its own right and find that it extends their whole outlook on life.
The creation of the Federal University of Surrey

Top: Senior academics and administrative staff from the University and Roehampton Institute sign the Instrument of Accreditation in 1991. This permitted the Institute to approve taught courses for University of Surrey degrees. The late Stephen Holt, Roehampton’s Rector, is to the right of the Vice-Chancellor.

Above: Professor Dowling, Roehampton Rector Dr Bernadette Porter and HEFCE Chairman Sir Michael Checkland pictured with the Deed of Federation in 2000.

Above: The mural in the Students’ Union painted in the 1980s by Roehampton students.

Top right and right: The Thanksgiving Service held at Westminster Abbey in March 2000.
The Federal University and the University’s Associated Institutions

On 1 January 2000 the University of Surrey and the former Roehampton Institute, now renamed the University of Surrey Roehampton, entered into a federal partnership. This was emphatically not a takeover of the one institution by the other, nor a merger, but a much rarer development: a voluntary agreement by two freestanding institutions to work together in ways that will build on their complementary missions. (Roehampton Institute already had much experience of such collaboration, being itself a federation of four colleges, three religious and one secular, founded in the 19th century for the training of teachers.) The Federation was marked by a Service of Thanksgiving and Dedication at Westminster Abbey on 17 March 2000 attended by 1,800 staff, students and friends of both institutions.

The two institutions were not strangers. The University of Surrey started to validate Roehampton courses in the late 1970s. In 1991 Roehampton took over delegated responsibility for most its degrees. Two years later, with the University’s help and support, Roehampton was granted the power to award taught degrees. When in 1998 it won the power to award research degrees, it could have pursued university status independently, but instead decided to explore federal status with Surrey. There were immediate advantages for each partner. Roehampton could become a university considerably more quickly by this route. Surrey gained an important presence in the capital, and could celebrate a return to its roots in south-west London.

This is to be federation with a ‘light touch’, each institution remaining independent in terms of staffing, admissions, finance, property and so on. The emphasis is on developing a strategic academic alliance that will strengthen both institutions in the longer term. Their respective areas of academic expertise complement each other well. Each has specialisms that the other does not offer at all or only to a limited extent; at Roehampton this applies to, for example, humanities, education (notably initial teacher training), and creative arts and design, at Surrey to physical sciences, engineering and technology, mathematical sciences, and law. In other areas, such as computing sciences, social, economic and political studies, and biological studies, greater overlap provides the potential for collaborative courses and research.

During the first two years of the federation, considerable joint discussion and planning took place, and this is now starting to show results in the form of joint courses and research and plans for a joint marketing approach. An imaginative pioneer initiative is a federal degree in English local history. This draws on distinctive strengths in both institutions to create a course that combines the traditional discipline of history with an interdisciplinary approach, for a good local historian must also be a demographer, geographer, economist, archaeologist, social scientist and vernacular architect. Plans for collaborative activities in languages and for professional development for science teachers are also advancing well.

The federal model also provides a framework for future regional collaboration, which the Government wants to encourage in both higher and further education. Together the two institutions form the focus of a regional network of educational bodies all offering award-bearing courses of the University of Surrey. Some, with long
experience in this field, are given considerable autonomy; known as Accredited Institutions, these include St Mary’s, Strawberry Hill, Wimbledon School of Art, and Farnborough College. Associated Institutions are more closely guided and monitored. These include Guildford College; Guildford School of Acting; HMS Sultan, Gosport (Nuclear Department); King Edward VII Hospital, Midhurst (Department of Staff Development); NESCOT; the Pre-Retirement Association; SHL, an international human resources and management consultancy; Southern Theological Education and Training Scheme, based at Salisbury; St John’s Seminary, Wonersh; and Westminster Pastoral Foundation; together with seven organisations primarily concerned with the training of schoolteachers. The list continues to grow, and Carshalton College has been approved for membership and will join once its programmes have been validated.

Together the University and its Associated Institutions provide a full portfolio of courses, including the new Foundation Degrees, for Surrey and the surrounding area. Many of the Associated Institutions have teaching and research expertise in areas that the University itself does not cover. One example is Wimbledon College of Art, which offers full- and part-time degrees in theatre and fine art disciplines. One staff member at Wimbledon is the sculptor Allan Sly, whom the University commissioned to produce the statue of the Surrey Scholar (see page 210) which stands at the foot of Guildford High Street. Patrick Dowling awards an annual prize to final-year students at Wimbledon, and also purchases a piece of work for the University’s art collection. St Mary’s College, which celebrated its 150th anniversary in 2000, has a long tradition of teaching and research, notably in areas such as historical, social and cultural studies, theology and religious studies.

Nearer home, in 1981, the Guildford Institute – which opened in 1843 and provided evening classes, a library and other facilities for self-improvement – became the
University’s base in Guildford town centre. The University invested some £1 million to repair and improve the Institute’s building, and currently an additional £2 million upgrade is planned; this will transform the Institute into a major educational centre, with attractive meeting and function rooms suitable for local societies and professional organisations.

Continuing education, always an important aspect of the work of the School of Educational Studies, has developed considerably in recent years. In 2000/01 7,235 students undertook continuing professional development provided by the University, or pursued other courses in the University’s Open Studies programme not leading to an award. The Combined Studies programme, launched in 1999, enables adults of all ages and backgrounds, whether they have formal qualifications or not, to study part-time for a BA or BSc degree; classes are held at the University and at Guildford Institute and around the county.

**Strengthening research**

One major task for Patrick Dowling when he became Vice-Chancellor was to continue to build the University’s research profile:

> The foundations were strong, stretching back to the Battersea days, and a great deal had been achieved over the previous ten years or so. But much remained to be done to achieve real excellence consistently across every area of the University’s work. I wanted to create more confidence, both within the University and outside it, in the quality of our work, and to get as much public recognition as I could for the University as a whole and for individuals within it.

The impact of the Research Park now began to make itself felt across the University. In Patrick Dowling’s first year, the Investing in Excellence programme was established to bring exceptional young lecturers and researchers to the University. The twenty new posts created were largely paid for by the Foundation Fund, which allocates much of the income from the Research Park. Three Foundation Fund professors were also appointed; low teaching and administrative loads enabled them to concentrate their energies on research. A further twenty-one Foundation lectureships were advertised three years later, in January 1998.

Additional top-class post-doctoral researchers have come to the University via the Surrey Scholars Scheme, initiated by Patrick Dowling and launched in March 1997 at St James’s Palace. The Scheme creates a genuine partnership between industry and commerce and the University. Each Scholar is sponsored by a particular company or organisation and works on a key problem in his or her area of activity. Over £1 million of sponsorship has been received from blue-chip companies such as Corus, Fina and PetroFina, National Grid, Philips, Unilever and Vodafone, and from other organisations such as Guildford Borough Council and the Lattice Foundation. A private individual has also provided sponsorship for a student.

Even more important was the development of in-depth research expertise in specific fields. In the early 1990s Tony Kelly had identified four growth areas: satellite engineering (see
The multi-disciplinary Centre for Environmental Strategy (CES) opened in October 1992, with Professor Roland Clift, who had previously been Head of the Department of Chemical and Process Engineering, as its Director. From its inception, the CES brought together the range of academic disciplines - from engineering through natural and social sciences to economics and philosophy - needed to address environmental problems and the agenda now known as sustainable development. Two years later the National Power Environmental Flow Research Centre was opened to carry out research into fluid flow and pollutant dispersion in the Earth’s atmosphere and oceans; its research facilities, unique in Europe, were funded by a mix of public- and private-sector bodies, with additional support from the University’s Foundation Fund. At the same time the Centre for Environmental Health Engineering, part of the Civil Engineering Department, was developing an innovative, multi-disciplinary approach to monitoring environmental hazards.

The European Institute of Health and Medical Sciences, established in 1995, broke new ground in providing education and health training for health and medical professionals together; it united the expertise of the University’s Department of Nursing and Midwifery with three healthcare colleges that previously formed part of the NHS. At about the same time, the Centre for Neurosciences was inaugurated to bring together cross-disciplinary expertise in fundamental and applied neuroscience research to work on research programmes investigating mammalian brain function at molecular, cellular and whole-body level. Close links were established with clinical neuroscientists in regional hospitals and with pharmaceutical companies. The Centre drew its members from four University Departments – Biological Sciences, Physics, Psychology, and the Robens Institute of Industrial and Environmental Health and Safety – and demonstrated the way in which cutting-edge research was increasingly taking place at the frontiers of traditional academic disciplines.

The University, and Battersea Polytechnic before it, had long been known for expertise in hotel, catering and tourism management. In 1985 The Times had commented that ‘Surrey is among a handful of top academic powerhouses in tourism, mentioned in the same breath as Cornell in the United States and Lausanne in Switzerland.’ By the 1990s the Department had long since completed its shift from its original craft orientation to a focus on management issues, and was widening its scope to retailing and to the service sector as a whole. In 1989 the University diversified into general management with the establishment of the Surrey European Management School. By 1992 the School was offering MBA programmes on campus and also through a growing number of international centres which were pioneering distance learning techniques.

Similar centres of multi-disciplinary research expertise continued to be formed across the University in increasing numbers during the 1990s. These included the Digital World Research Centre, the UK’s first academic centre dedicated to providing organisations with interdisciplinary research into how people interact with digital technology; the Centre for Vision, Speech and Signal Processing; and the Centre for Research on Ageing and Gender, which examines, from a social and economic perspective, the impact of gender and age on individuals, families, and society.
Dr Lesley-Jane Eales-Reynolds, winner in 2001 of one of twenty prestigious national teaching awards.

Ravi Silva, possibly the youngest-ever Professor of Electronic Engineering in the UK.
perspective, the different ageing experiences of women and men. Another recent innovation is the formation of UniMaterials, which unites the University’s materials-related activities from a variety of disciplines, including engineering, physics, chemistry, electronics, and biomedical and life sciences. Space does not permit a full list of such research centres and groups to be given; pages 146–65 provide brief accounts of recent and current developments in each of the University’s Schools.

The commitment to strengthening the University’s research culture gradually paid off. The results of the 1996 Research Assessment Exercise (RAE) showed considerable progress. Electrical and Electronic Engineering’s rating rose from a 5 to the new top 5* rating, placing it among the top five departments in the country; Toxicology retained its 5 ranking, and Sociology moved up from 4 to 5. Eight departments maintained their 4 ranking, and four others moved up to 4 for the first time; only three departments lost ground compared with 1992. Overall 22 per cent of the University’s research-active staff were in departments rated 5* or 5, which signify world-class research activity.

The research momentum increased steadily in the late 1990s, and the results of the next RAE, in 2001, provided the crucial evidence that Surrey had secured its place in the select group of top research universities. Three Research Groups achieved the new maximum 5*A rating: Electronic Engineering (which includes Computing), Subjects Allied to Medicine, and Sociology. (Subjects Allied to Medicine embraces the research activities of the School of Biomedical and Life Sciences, the Postgraduate Medical School, the Human Psychopharmacology Unit, and the European Institute of Health and Medical Sciences.) An impressive 34 per cent of the University’s research-active staff belonged to these groups – a higher proportion than in all but four other UK universities. No fewer than seven other areas achieved a 5 rating: Psychology; Physics; Applied Mathematics; Statistics and Operational Research; Chemical Engineering – Environmental Strategy; European Studies; and Russian, Slavonic and East European Languages. This means that a remarkable 60 per cent of the University’s research-active staff now work in areas rated as ‘world-class’. Most other departments improved their rating, and only two fell back on their 1996 score.

There was of course considerable, and justified, satisfaction at these results. Patrick Dowling called them ‘absolutely tremendous – a triumph of the University’s long-term investment strategy to achieve research excellence’. In terms of the percentage of staff in 5* graded departments and also in terms of funds won from HEFCE (see below), Surrey is now a major research university, rated in the same league as Oxford and Cambridge, Imperial College and the London School of Economics. The results also demonstrated the validity of the University’s long-standing policy of working closely with the outside world of commerce, industry and government. Chris Fife-Schaw, Head of the Department of Psychology, commented on his Department’s result: ‘We have struck a good balance between doing policy-relevant psychological research whilst still addressing core academic research questions.’

There was much pleasure too at the recognition that the RAE results gave to the talents and achievements of the University’s researchers. Commenting on the results, Professor Bill Gelletly, Head of the School of Physics and Chemistry, spoke for his colleagues throughout the University:
It is very pleasing that the RAE Panel has recognised the high quality of the research of our mainly young staff. Their work is imbued not only with the true spirit of intellectual enquiry but with an entrepreneurial spirit as well, in tune with the ethos of the University. This is the platform on which Surrey’s Physics Department will go from strength to strength and contribute not only to our understanding of the world around us but to improvements in the quality of life of all our fellow citizens.

Funding follows research excellence. A substantial proportion of the University’s research funding comes from the Higher Education Funding Council (HEFCE). The University’s excellent RAE scores were reflected in HEFCE’s funding allocation for 2002/03, announced in March 2002, in which the University was awarded £14.2 million in research funding. This was an increase of 21.5 per cent on the previous year; the research proportion of the University’s recurrent HEFCE grant now amounts to 43 per cent. Another indicator of research strength is the University’s total income from research grants and contracts. In 2000/01 this amounted to almost £20 million, in contrast with just under £15 million in 1995/96 (an increase of 33.5 per cent) and just over £10 million in 1990/91.
In describing the University’s research record, it is all too easy to concentrate on the quantitative – RAE scores, funding allocations and so on – and to overlook the achievements of individual members of the University’s staff. Their intellect and their efforts underpin the University’s collective success. One important form of recognition comes through election to learned societies, which Patrick Dowling has been keen to foster. Election to the Royal Society is regarded worldwide as a sign of the highest scientific achievement, and real pride was felt throughout the University when Alf Adams was elected to a Fellowship in March 1996. The honour was in recognition of his invention of strained quantum well lasers in 1986. These lasers are now used for all the optical communications that drive the internet, for optical storage data in computers, for laser printers and in products such as CD players and DVDs. About 1,000 million are made annually, representing a value of about £10 billion – which almost certainly means that they have had the largest commercial impact of anything developed at the University. Alf Adams’s FRS was the first awarded for work done at the University of Surrey, although Joseph Kenyon, Head of Chemistry at Battersea Polytechnic, had been recognised some sixty years earlier (see page 180). Patrick Dowling was elected to a Fellowship at the same time – one of the relatively few engineers honoured in this way – and so too was Professor John Pickett, Head of Biological and Ecological Chemistry at the Institute of Arable Crop Research, who had been a student at the University. (A full list of Surrey Academicians appears on page 213.)

Other academic honours are too numerous to list in this book, but a sample for the year 2000/01 indicates their breadth. In that year the Vice-Chancellor was appointed Chairman of the Engineering Council, which is responsible for developing professional standards for engineers; Professor Martin Sweeting became a Fellow of the Royal Society, and Professor Josef Kittler, Director of the Centre for Vision, Speech and Signal Processing, a Fellow of the Royal Academy of Engineering; Professor Michael Kelly, Director of the Centre for Solid State Electronics, was appointed Vice-President of the Institute of Physics and joined the Council of the Royal Society; Professor Roland Clift, Director of the Centre for Environmental Strategy, was elected an Honorary Fellow of the Chartered Institute of Water and Environmental Management; Professor Ugur Tüzün became the only scientist from outside the US to serve on the NASA panel selecting research projects for the space shuttle; Professors Peter Buckle and David Stubbs of the European School of Health and Medical Sciences were both honoured by the Ergonomics Society; Dr Joe Keddie of Physics and Chemistry was awarded the Paterson Medal and Prize by the Institute of Physics; Professor Alf Adams was elected a member of the US Institute of Electrical and Electronics Engineers (a first for the University); and Professor Richard Farmer and the late Professor Ken MacRae of the Postgraduate Medical School were elected to the Faculty of Pharmaceutical Medicine of the Royal College of Physicians.

The University is also becoming more and more influential at the important interface between academia and policy-making in government, international organisations and non-governmental organisations. Patrick Dowling has served on the Council of Universities UK (the former Committee of Vice-Chancellors and Principals) since 2000 and since 1998 has chaired the Business and Industry Strategy Group, which is
Some of the many staff who have contributed to Surrey’s evolution into one of the UK’s top research-led universities
especially concerned with the way in which links between universities and industry can contribute to the development of the modern knowledge-driven economy. Professor Robin Middlehurst of the School of Educational Studies made a significant contribution to thinking and policy in the same area in her report *The Business of Borderless Education*, published in March 2000 and sponsored by Universities UK and HEFCE. Her argument, supported by extensive research, is that growing internet access worldwide and the potential of multimedia developments in learning are presenting a major challenge to traditional teaching methods and to traditional universities. The report led directly to the Government’s announcement of the formation of a UK e-university. Professor Middlehurst co-directs the Top Management Programme for Higher Education, which provides training for vice-chancellors and other senior officials, and is a member of the Public Sector Leadership Development Forum and the Council of the Central Government National Training Organisation, which is responsible for manpower planning and training for the civil service; she is also an adviser to UNESCO. In the same school, Professor Stephen McNair, formerly a Higher Education Adviser to the Department for Education and Skills, served in 2001/02 on the Academic Advisory Panel of the Cabinet Office’s review of national workforce development policy and strategy.

In the mid-1990s the Government’s Technology Foresight Programme carried out important work in helping the business community, scientists and engineers to cooperate to exploit emerging opportunities in new markets and new technologies. Five Surrey staff members (Professors Roland Clift, Barry Evans, Nigel Gilbert, Michael Kelly and Martin Sweeting) were members of Foresight panels in their areas of expertise. Barry Evans, now Pro-Vice-Chancellor for Research and Enterprise, has also served as Adviser to the Director-General of OFTEL, the regulatory body for the telecommunications industry, and advised the EU on its research programmes. Both he and Michael Kelly are members of Engineering and Physical Sciences Research Council strategic advisory teams, for information technology and computer science, and for materials respectively; Michael Kelly also advises the European Commission and the Ministry of Defence. Roland Clift, Director of the Centre for Environmental Strategy (CES), has served on the Royal Commission on Environmental Pollution since 1996, an unusually long period, was a founder member of the UK Ecolabelling Board (1992-98), and also advised the European Commission on ecolabelling; the CES currently provides all training on environmental matters for the Foreign and Commonwealth Office.

Professor Jim Bridges, then Head of the European Institute of Health and Medical Sciences, was one of sixteen independent scientists to serve on the European Commission’s Scientific Steering Committee, which was closely involved in monitoring the safety of British beef; at the same time he chaired the EU Scientific Advisory Committee on Toxicology, Ecotoxicology and the Environment, which advised the Commission on a wide range of topics, from the safety of children’s toys to risks from mobile phones. Professor Sara Arber, Head of the School of Human Sciences, has acted as an adviser to the World Health Organization on the provision of care in relation to gender and ageing in developing countries; and Professor Graham Bird, Director of the Surrey Centre for International Economic Studies, is a leading adviser to a team evaluating the impact and operation of the International Monetary Fund.
New buildings

Above: The Duke of Kent Building, home of The European Institute of Health and Medical Sciences.

Far right: The new Advanced Technology Institute, to be known as the Daphne Jackson Building.

Right, top to bottom: New student accommodation – the opening of Twyford Court; Millennium House (nicknamed ‘the Train’); and the opening ceremony for Millennium House.
New buildings

During the 1990s universities became modest but influential architectural patrons, despite the constraints imposed by public-sector cost restrictions on new buildings. University buildings fulfill a variety of diverse functions, as Brian Edwards, Professor of Architecture at the University of Huddersfield, writes in his book *University Architecture*:

*Universities have a higher mission... [which] gives the design of buildings a cutting edge to which few other areas of architecture aspire. It is the fashioning of a dialogue through bricks and mortar, or more likely steel and glass, with intellectual mission in the broadest sense. Universities have the almost unique challenge of relating the built fabric to academic discourse... The university environment is part of the learning experience and buildings need to be silent teachers.*

The form of George Grenfell Baines's original design for the University – a concentrated, urban community broken up by a variety of pedestrian spaces – had survived remarkably intact; but the buildings themselves, designed and constructed to restricted budgets, had not worn so well. In the words of Stephen Baker, the University's Development Director, ‘the quality of an institution's buildings is a reflection of the quality of the institution itself.’ It was time now to create new buildings that would give physical shape and significance to the University’s ethos and educational vision at the end of the 20th century, and that would also renew the campus’s distinctive sense of identity.

The most celebrated of the new buildings is the £12 million Duke of Kent Building (completed in autumn 1999 and formally opened the following March), which houses the European Institute of Health and Medical Sciences. Nicholas Grimshaw & Partners (architect: Christopher Nash) won the competition to design this major building, which stands on the edge of the campus, where Stag Hill falls away steeply to the railway and the town centre. Its dramatic silhouette makes the building both a literal landmark for the University and a metaphorical one, for it houses the teaching and research subjects that, perhaps more than any others, bring the University into close contact with Guildford and the surrounding area. The building also marks the pedestrian route between town, University and Cathedral, and so acts as a gateway for townspeople and the University’s staff and students.

The new building was generally well received in Guildford. There was some criticism, inevitable with any non-traditional building, but broadly speaking townspeople seemed pleased with the addition to the skyline, and it was adopted as the town’s millennium symbol. It also won several prestigious awards, including the Guildford Heritage Award and the Guildford Society Award.

Reviewing the building, *Building Design* wrote that

*Its prow, thrusting from the hillside below the Cathedral, has become a new landmark, visible from the town centre, the railway and the A3. Its shiny, corseted silhouette is fashionably sexy... The site is one of the last substantial pieces to be
slotted into Building Design Partnership’s sixties masterplan for the University… and the institute, engineered by Alan Baxter & Associates, maintains the building line of these blocks higher up the hill.

The form of the building is complex. Teaching and administrative areas occupy the principal block, whose forward-thrusting, zinc-clad prow allows progressively larger lecture and seminar spaces on each floor. On the top floor, at the outermost point of the prow, pride of place has been given to the staff commonroom; the views are stunning. Laboratories are housed in a low, curvilinear building immediately to the west; the public garden on the roof is designed to create an attractive meeting-place. Glass cladding on the north and south façades of the main building maximises natural light, and two atria draw daylight into its heart. To encourage collaborative working and interaction, offices (largely open-plan) for teaching and administrative staff are grouped around the atria. The internal materials – principally concrete and timber – provide a warm and light effect, with drama added by concrete columns.

The second of the trio of innovative turn-of-the-millennium buildings is the Advanced Technology Institute. This landmark building, at the western entrance to the campus (the one most used by visitors, staff and students), represents the University’s commitment to exploiting the potential of its research strengths in high technology. Designed, like the Duke of Kent Building, by Christopher Nash of Nicholas Grimshaw & Partners, it will house the School of Electronics, Computing and Mathematics and will also provide flexible accommodation for six Research Groups, thus encouraging cross-disciplinary research; these are Microwave Subsystems, Lasers and Optoelectronics, Large Area Electronics, Ion Beam Applications, High Pressure, and Biosensors. The glass elevation allows passers-by to see what is happening inside the building, and equally reminds researchers of the world outside the laboratory: a symbol perhaps of the University’s commitment to working with the world.

The campus has never had a focal-point for visitors – there is no obvious place to start your visit or to find out where to go. Lack of a ‘way in’ affects perceptions of the University’s accessibility, of how genuinely welcoming and open it is as an institution. The new £11 million Management School Building, designed by Caroline Buckingham of HLM Architects and due to be completed in autumn 2002, will create a real arrival-point for visitors, with auditoria for public lectures and a restaurant and coffee shop. The University’s two centres of management expertise – the School of Management for the Service Sector and the Surrey European Management School – will occupy most of the building. A footbridge will provide a link with the adjacent Austin Pearce Building, completed in 1997. Patrick Dowling feels that management, and especially the School of Management for the Service Sector, is one of the University’s ‘unsung heroes’.

For long enough the subject struggled to achieve academic respectability here and in the academic world generally. Our specialists have long since understood the importance of the service sector in the national and international economy. Now the rest of the world has caught up, as it were, and the subject, with its developing research profile, has a brilliant future.
The main feature of the triangular building, which will include a training kitchen, food science laboratory, and the ‘Lakeside’ training restaurant, will be a magnificent three-storey central atrium and a 400-seat lecture theatre, the biggest in the University.

The new building will also demonstrate the University’s genuine commitment to the ideas and practice of sustainable development expounded in many of its lecture theatres and seminar-rooms. An Environmental Policy Statement commits the University to recognising ‘its obligations to contribute to the resolution of global and local environmental issues by reducing its environmental impacts and by taking a leading role in promoting environmental good practice’. This will be a landmark low-energy development, consuming 40 per cent less energy than required by government best practice targets, which in turn require a significant reduction in energy consumption from current levels. The two keys to achieving this target are renewable energy and minimising unwanted heat exchange to and from the building. Renewable energy comes in the form of free cooling from the air outside and from the nearby lake, supplemented with recovered energy from the University’s combined heat and power (CHP) system. The building itself is designed to allow optimum use of daylight and of natural ventilation, to keep solar heat gain in warm weather as low as possible, and, in cold weather, to minimise heat loss and maximise the benefits of solar gains and internal gains (from lighting, equipment and so on).

When the Management Building opens, the development of Stag Hill will be almost complete. One further postgraduate hall of residence, whose design mirrors that of the Advanced Technology Institute, will provide accommodation for students in 2003. It is fitting that the final buildings should be of such high quality.

One consequence of the University’s history, and of the remarkable efforts made to create the new campus on Stag Hill, is that much of its estate is now in need of refurbishment. The main academic buildings - constructed so quickly, and to so tight a budget, in the late 1960s and early 1970s - have proved remarkably flexible: each was designed on the same modular principles and can be used for virtually any purpose. They were also remarkably innovative for their time. For instance, the design included district heating on to which the University has grafted its combined heat and power unit, whereby waste heat is recycled: 25 per cent of the campus already uses the lake within its cooling system. However, financial constraints meant that standard maintenance and improvements were not undertaken for many years; nor was the estate regarded as an important University resource. In the early 1990s Surrey was one of the first universities to undertake a condition appraisal; this identified a large and expensive backlog of work. Since the mid-1990s, with support from HEFCE, the University has invested many millions of pounds on its residential and academic buildings in order to improve facilities and comply with current legislation; this level of investment, currently running at £2 to £3 million per annum, is planned to continue for the foreseeable future. The systematic renewal of window systems and the replacement of flat roofs, to take two examples, will never rank among the most dynamic of the University’s activities. But such investment is crucial to the quality of the University’s fabric and also to the well-being of staff and students alike: people work more enthusiastically and productively in a well maintained and pleasant environment.
The Research Park

The 1990s were years of continuing growth for the Research Park. By 2001, 82 per cent of the Park had been developed, and just two sites remained to be constructed. Occupancy rates remained consistently high - generally over 95 per cent - throughout the decade, and the depression of the early 1990s virtually passed the Park by. In 2001, 110 companies employing some 2,750 people were based in the Park.

These few statistics hint at the Park's remarkable economic impact on Guildford and the wider region. Jobs on the Park pay very well; in 1997 the annual average salary was £37,000 - 30 per cent above the Surrey average for male non-manual employees, which itself is well above the national average. High salaries and high turnover per employee generate a high level of economic activity - between £300 million and £350 million in the year 2000 alone. The Park also creates substantial employment - on-site, of course, but off-site as well; by 2001, according to conservative estimates, the Park had created 3,000 new jobs. Many of these were filled by local people; of the 1,150 new jobs created by companies moving into the Park in 2001, almost 60 per cent were taken by Surrey residents. Nearly half the tenants are inward investors in Surrey; these are principally from the USA, but also from Canada, India, Japan, Sweden, Finland and Iceland, and some 12 per cent are UK companies relocating to Surrey.

The impact on the University has been equally significant in both economic and intellectual terms. During the 1990s the Research Park passed some £26 million to the University. Approximately half of this was used to support new building projects and half to support academic initiatives, including the Digital World Research Centre, new professorial and lecturer posts, and the Surrey Scholars (see page 115). The Park's market valuation of over £75 million also adds to the financial security of the University and provides access to funds by supporting borrowing for major capital projects.

There has been significant co-operation between the University and companies based on the Research Park. Collaboration between BOC Gases and the University's chemical and process engineering specialists resulted in the development of innovative freezing techniques for the food-processing industry. The Canon European Research Centre developed new products with technical assistance from several University Research Groups, including Materials Science, Engineering and Music; and, in cooperation with the School of Biological Sciences, AGROL began the process of developing superbugs to turn agricultural waste into ethanol.

The Park's 'Incubator Centre' (The Surrey Technology Centre) plays a major role in helping innovative technology businesses achieve the sometimes difficult transition to commercialisation. Efficiently run premises, access to the University's human and material resources, and the collegiate 'high-tech village culture' on the Park all make it easy for young businesses to recruit the best talent and find their feet in a commercial environment. The original Technology Centre, opened in 1986, soon proved highly successful. In July 2001 the Duke of Kent opened a £4.5 million extension that more than doubled its size. The Centre is now renamed the Anthony Kelly Development to honour the person who, more than any other, inspired the Research Park. Several Technology Centre tenants have already achieved commercial success. One example is

Dr Malcolm Parry, Director of the Surrey Research Park.
The opening of The Surrey Technology Centre in 2001, named after Professor Anthony Kelly.
Cleansorb, a biotechnology company that developed an environmentally friendly technique for repairing oil wells damaged by drilling that uses enzymes to create vinegar in the borehole; previously, large quantities of dangerous and environmentally harmful hydrochloric acid were used. The potential market is worth at least £1,000 million a year. The Technology Centre also helps inward investors to establish themselves in the UK. For instance, InCROM, Japan’s biggest clinical research organisation, undertook a joint investigation with the University into how patients’ racial characteristics could alter the effectiveness of medicine prescribed for them.

The incubator function of the Technology Centre is a vital one. However, the large majority of companies on the Research Park are established operations, with significant clusters in information communications technology, mobile phone technology, software (including synthetic environment companies involved in computer games), biomedicine and biotechnology. Two arrivals during 2001 were Syngenta and Disperse Technologies. Syngenta, a global agribusiness formed by the merger of Novartis Agribusiness and Zeneca Agrochemicals, relocated its 200-strong European Regional Centre to the Park. Disperse Technologies develops technologies for manufacturing creams, lotions and similar products in the pharmaceutical, household goods and food industries. The winner of several innovation awards, the company is currently targeting the US market with considerable success.

**Small satellite missions**

The world over, when experts in spacecraft and communications think of small satellites, they think of the University of Surrey and Sir Martin Sweeting – although Sir Martin is the first person to pay tribute to the work of his colleagues at the Surrey Space Centre, which now employs 130 engineers and support staff. During the 1990s Surrey Satellite Technology Ltd (SSTL – see page 83) continued to develop microsatellites, started to build smaller nanosatellites and larger minisatellites, and also worked on a wide range of subsystems for other satellite missions (SSTL is the only non-US supplier to NASA’s Rapid Spacecraft Acquisition Programme). By early 2002 SSTL had launched twenty satellite missions and its order book for 2002/03 was worth over £35 million; export sales over the previous two decades totalled some £60 million. Income generated by SSTL sustains the University’s satellite research activity at the Surrey Space Centre, which is recognised as the European centre of excellence in cost-effective space engineering.

Further recognition came with two coveted awards. In 1997 the Surrey Space Centre won the Queen’s Anniversary Prize, for excellence in teaching and research in satellite engineering and communications (which also honoured the University’s Centre for Communications Systems Research); and, two years later, it won the Queen’s Award for Technological Achievement for the development of low-cost lightweight satellites. This latter award was presented by Her Majesty The Queen on 4 December 1998 when she made her second visit to the University, accompanied by HRH The Duke of Edinburgh. At the same time she opened the Surrey Space Centre’s newly extended building; the visitors put on sterile clothing to enter the clean room, where they saw the three newest satellites under construction. The Duke of Edinburgh also inaugurated the Surrey Space
Developments in satellites

**Left:** Wearing sterile clothing, the Queen visits the clean room in the Surrey Space Centre.

**Above:** US astronaut the late Alan Shepard during a visit to the University in 1994.

**Left:** Athena launch vehicle takes the University’s PICOSat into orbit from Kodiak Island, Alaska, on 30 September 2000. PICOSat is a 67kg micro-satellite developed for the US Air Force by Surrey Satellite Technology Limited.

**Below:** One of a seven-satellite constellation designed to monitor global disasters.
Club (see below). Their visit included a tour of an exhibition in the Austin Pearce Building of the University’s work. The Queen spoke to schoolchildren and onlookers in Senate Square as the royal party made its way to Senate House, where she signed the visitors’ book. The Queen also met local dignitaries and University high-fliers, including its four medal-winners at the Commonwealth Games held in Kuala Lumpur three months earlier.

Technology transfer is one of the developments of which Sir Martin is most proud: ‘Small satellites give developing countries access to space and enable them to develop national expertise in space technology at an affordable cost.’ Surrey Space Centre has run in-depth training programmes for Pakistan, South Africa, South Korea, Portugal, Chile, Thailand, Singapore, Malaysia and China, and is currently working with Algeria, Nigeria and Turkey. Scientists and engineers spend twelve to eighteen months in Guildford, sharing offices and responsibilities with colleagues from SSTL and playing an intimate role in the whole satellite life-cycle, from mission analysis through design, build, test, launch and commissioning to orbital operations. Some seventy engineers have been trained in this way, and over 600 students have studied at postgraduate level.

One natural outcome of international collaboration was the formation of the Surrey Space Club. The Club provides a forum for international partners to share new ideas and stimulate collaborative research, and there are plans for members to build constellations of small satellites together, co-ordinating low-cost launches and helping each other with long-term national planning. SSTL has long promoted the concept of constellations of small satellites – a cluster of nanosatellites can replicate a large satellite at a fraction of the cost.

The Space Centre’s greatest impact has been on observing the Earth from space. Microsatellites produce image quality comparable with that obtained from conventional large satellites weighing twenty times more and costing up to a hundred times the budget. The Disaster Monitoring Constellation is a novel international application of SSTL’s ability to produce high-quality Earth observation satellites. This Surrey-led partnership between the UK, Algeria, Nigeria, Turkey, China, Thailand and Vietnam consists of a network of seven small satellites and groundstations. Each satellite, and the images it produces, are owned by a participating nation. However, at times of natural or man-made disaster, the partnership collaborates to provide daily Earth observation images of any point on the globe, so bringing vital information to relief teams on the ground. The first satellite in the constellation, AISat-1 for Algeria, is due for launch in autumn 2002. A study is also underway to develop a low-cost small geostationary communications minisatellite to support a diverse range of data, telephone, television and radio services. This will use cost-effective commercial technologies, so giving customers the opportunity to own a dedicated communications satellite providing real-time services at a much lower price than with a conventional satellite.
In 2000 SSTL launched its smallest-ever satellite: the SNAP-1 nanosatellite. On board is a four-camera machine vision system, GPS navigation and a tiny butane propulsion system for manoeuvrability in orbit. Because of their low cost and lightweight build, future applications will include remote ‘inspectors’ in space attached to a ‘mother-spacecraft’, to be used for external inspection of other spacecraft in orbit. Beyond this, a five-year research programme is underway to build complete satellites-on-a-chip. Swarms of 2 cm chips - intelligent and adaptable, failure-resilient and providing coherent communications - will fly in tight formation.

The next advance for SSTL promises to be one of the most exciting yet in its eventful history: a lunar mission. SSTL will be playing a leading role in Europe’s first mission to the moon, planned for the end of 2005. The mission’s primary aim is educational, and students worldwide will be able to follow the project and take part in it via the internet. Using SSTL’s minisatellite design, propulsion engineers at Surrey are developing systems that will take their small satellite further into space to reach a lunar orbit. Another of the mission’s objectives is to image the south polar region of the moon, where it is believed that there is evidence of water ice.
Her Majesty The Queen’s second visit to campus on 4 December 1998. The signature is from the University’s Visitors’ Book.
The wider world

The University, and Battersea before it, has always been an institution conscious of the world beyond the UK and positively welcoming diverse cultural and educational attitudes and experiences. The experience of Fiona Wareham, President of the Students’ Union in 2000/01, is typical of many students:

The multicultural atmosphere on campus generally, and especially in the residences, adds enormously to student life. Just coming to university and learning to live and work with other people teaches you a lot. Here you are also having to get along with people from every part of the world, and this makes the whole experience much richer.

Attitudes towards overseas students changed radically during the 1980s. Before then the University had certainly welcomed those who had applied and been admitted, but it had never gone out of its way to recruit from overseas, and in general overseas students were viewed as subsidiary to the mainstream of UK students. In this respect the University of Surrey was no different from its fellow universities throughout the UK. Finance was the main spur, at least to begin with. In 1981 the Government subsidy to overseas students was finally removed, and universities were compelled to charge full fees. The number of overseas students fell sharply. Gwyn Brown, Dean of International Students since 1986, recalls how the University responded:

It was soon realised that overseas students paying full fees could provide an important source of non-government income at a time when the University was trying to reduce its dependence on central government funding. Two further factors were of great importance. The University really felt the lack of overseas students – it simply became a less diverse, and therefore less interesting, place – and we started to appreciate the positive contribution overseas students made both culturally and academically. In addition we realised how much Surrey had to offer students from overseas, who generally view the decision to travel abroad to study as an investment in their future career. Our vocationally focused courses would therefore have enormous appeal to such students.

Tony Kelly took the enlightened attitude that academics were the best people to promote the University abroad. In 1982 – well in advance of most other universities – he created the post of Dean of International Students, and in 1991 established an International Office to manage the University’s promotional activities abroad and to oversee the welfare of overseas students currently at the University. Numbers of students from abroad increased, slowly at first, then more rapidly, from 320 in 1981 to 607 in 1990, and 2,111 in 2001 (of these, 815 are from other countries in the European Union, and 1,296 from elsewhere). The highest proportion of non-EU students comes from the Far East, notably Thailand, Singapore and China, the second highest from Europe outside the EU, especially Cyprus, Norway and Russia. Approximately one-third have won national scholarships, while the other two-thirds are self-financing. Many have borrowed heavily to pay for their studies in the expectation of substantial earnings after
graduation, and also because they feel that studying overseas will prove an enriching cultural experience. Surrey academics regularly travel to recruit students, lecturing at feeder institutions, exploiting academic links such as joint research projects, and working with the British Council and other agencies responsible for marketing British higher education abroad.

A successful exchange scheme with Michigan State University began in 1973; since then, similar exchange programmes have been established with other US universities, with Nanyang Technological University, Singapore, and with La Trobe University, Melbourne. However, the number of students taking part in such exchanges rarely exceeds twenty each year; British students generally are not enthusiastic about spending a year abroad, which for Surrey students – most of whom in any case spend one year working in industry – can be especially disruptive. The language departments, many of whose students spend a year abroad (on either work or study placements) as an integral part of their course, have their own exchange schemes (many involving staff as well) with universities in France, Germany, Russia, Spain and Sweden.

Between 1984 and 1991 the University regularly received twenty-four Soviet teachers for twelve-week study visits under the auspices of the Anglo-Soviet Cultural Agreement. In the same period Professor Bert Pockney, Head of the Department of Linguistic and International Studies, set up an exchange arrangement with the Lenin Pedagogical Institute in Moscow, whereby Surrey students studied in the USSR and the Institute’s students, who were training to be English teachers, came to Guildford. Margaret Westwood, who was Course Director for the Soviet exchange programme, recalls these visits:

In the first few years, the Russian students were closely monitored and chaperoned. They worked diligently, but scarcely asked questions in classes, and carried out all their visits in groups. Then came the period of glasnost, and quite quickly attitudes became much more free and easy. The exchange students started to become more like ‘normal’ students. They would cut lectures or trips, which they would never have dared do before, and became much more vocal and relaxed.

These exchanges came to an end when the USSR broke up and the complex financial arrangements unravelled.

The international sharing of expertise and knowledge has been a feature of life at Surrey, as at every other university, for decades. This process has accelerated recently through EU programmes such as Erasmus, Socrates and Tempus, which support European student mobility and academic partnerships, and through programmes designed to encourage technology transfer and capacity-building. Examples abound, but contacts within electronic engineering with the Technical Universities of Prague and Warsaw have proved particularly fruitful. The Guildford Consortium, a non-profit-making partnership of educational institutions and businesses, was formed in 1990 to build education and training capacity in Russia and Eastern Europe. The involvement of businesspeople alongside academics is crucial to the work of the Consortium, which operates from the University’s Educational Liaison Centre (ELC). Successful projects include working with the Nizhny Novgorod Federal Commercial Institute of Higher
Campus life in the 1990s
Education to set up a small business advice centre and to update curricula in business studies; and reporting on the potential for developing small businesses in the White Sea area of Russia. Alongside the University, the most active members of the Consortium are Farnborough College, Godalming College, Guildford College and the University of Surrey, Roehampton, plus some twenty businesses, mostly small or medium-size enterprises. More recently the ELC has been actively involved in the EuroMOVE Consortium, which promotes the mobility of skilled people who are unemployed, working with higher education partners in Denmark, Finland, Germany and Ireland.

The University is continuing to build longer-term relationships with higher education institutions and industry in Finland and the Baltic States. Here some thirty active links have already been established, notably in the complementary areas of medical science, IT, environmental science, toxicology, food and nutrition, and medical care. One of the most important of these is with Nokia, the mobile communications company; Surrey is one of three universities that form part of Nokia’s Global University network. In June 2001 a four-way Memorandum of Agreement was signed by the University of Kuopio, the Technology Centre Teknia, the University of Surrey and the Research Park. For Professor Jim Bridges, the University’s Dean of International Strategy,

The agreement with the University of Kuopio is the first crucial step in the establishment of a network of carefully targeted universities in the European Union and beyond. This network is intended to provide a sustainable base for large multidisciplinary projects in research and postgraduate education.

Student life

New buildings aside, the biggest single visible change in the University during the 1990s was the number of students. Successive governments gradually increased the number of higher education places, and Surrey received its share. Total student numbers were 11,267 in 2000/01 compared with 4,504 ten years earlier. Perhaps more revealingly (since the 2000/01 figures are swelled by the substantial number of part-time undergraduate students pursuing programmes in Combined Studies - see page 115), the number of full-time undergraduates increased by 64 per cent during this period and the number of postgraduate students tripled. Of the latter, almost three-quarters were studying for taught postgraduate qualifications, reflecting the enormous increase in demand for high-level professional qualifications.

Funding constraints limited the expansion of residential accommodation in the late 1970s and 1980s. Hazel Farm, the University’s residences at Worplesdon, was built in stages between 1978 and 1989, adding 355 places in all. The initial stage of University Court, opened in 1989, was the first on-campus accommodation since Guildford Court, completed in 1975. Since 1989, however, the University has invested substantial sums in its residences and has added just over 1,000 places in nine separate developments on and off campus. Now the University can provide places for half the students who need housing; one-third of the students in residences are postgraduates - recent developments have included flats for couples and families - and overseas
students are guaranteed accommodation throughout their time in Guildford. In addition, the University has some 300 properties in the town on its books.

The early University residences were based on relatively large groups of students, twelve or fourteen, sharing facilities. The more recent developments are based on groups of five or six, and, while the shared kitchens and social areas remain, shared washing facilities have now vanished - all the new accommodation is en suite. In addition, every room now has a telephone and computer link.

According to Richard Paxton, the University’s Director of Accommodation, these improvements reflect changing expectations among students:

*The smaller groups may be less sociable, but they help us to deal with a number of potential difficulties. As a generalisation, in the 1960s and 1970s university students were drawn from a much more smaller and more homogeneous sector of society, and Surrey’s were no exception. Our students today come from a very wide variety of backgrounds and have had a much greater variety of life experiences, and all kinds of personal, social and medical factors affect how people live communally.*

Originally the residences had a reasonably balanced population, with maturer final-year students helping to dampen the occasional excesses of younger first-year
In April 1974, two years before his death, Ernest Shepard, the renowned illustrator of Winnie the Pooh and Wind in the Willows, came to the University of Surrey in order to present to the Vice-Chancellor the residue of his drawings, manuscripts, papers, diaries and memorabilia. As Shepard had lived for fifty years in Guildford he felt that his papers should be housed in what was then the ‘new’ University. This gift was carefully stored and made available to research students upon special request.

In 1993 the University Archivist, Arthur Chandler, was handed this unique collection, and he immediately set about finding its true content (and incidentally its true value). It soon became obvious that such a special and valuable Collection needed its own section of the University Archive. At University expense, such an area was created into which the Shepard Archive was moved in April 1998.

It was found that the Shepard Archive consisted of:
- Fifty-three handwritten diaries
- Manuscripts for his two autobiographies, two of his own children’s story books and other minor works
- School exercise books, notebooks and sketchbooks covering seventy-nine years
- Over 3,000 letters
- Photographs of his family and his war service in Italy
- Over 400 drawings from Punch
- 300 pencil sketches
- 250 pen and ink drawings.

At this point the University was offered the opportunity to stage a major exhibition in the prestigious Dulwich Picture Gallery in South London. After two years of preparation, this exhibition was opened by Dame Norma Major on 4 December 2000. On the same day, a book by Arthur Chandler, based on the information from the Archive, was published. Both exhibition and book were called The Man Who Drew Pooh and both were extremely successful – the exhibition had over 19,000 visitors during its seven-week run, and the book had its first reprint within six weeks of publication and is now in its third reprint.

Interest was immediately aroused in the art world. Broadcast interviews and television programmes quickly followed and requests were made for Shepard exhibitions to be shown elsewhere. Since June 2001, eight exhibitions have been staged at various venues in the United Kingdom while abroad there is a semi-permanent exhibition in Winnipeg, Canada, and a travelling exhibition in Japan until April 2004. In November 2002, an exhibition opens in
Rotterdam for six weeks and in June 2003 another opens in Stirling, Scotland, for five months. There was also a book launch in Perth, Western Australia.

These events help the University to produce an income to conserve and catalogue its contents – a task that could well take three further years to complete. Academic research is already taking place. During 2002 a sixth-form student from a local school has been studying E. H. Shepard as her special subject in her A-Level Art History and a postgraduate student in English from the University of Nancy in France has been researching for her Masters degree.

Arthur Chandler retired as University Archivist, after fourteen years of service, in July 2001. However, he was appointed Shepard Archivist on the following day, enabling him to concentrate on the conservation of this collection, which is the greatest source of information on Ernest Shepard in the world.

The Shepard Archive is now located in a refurbished home on the fourth floor of the University Library.

*Left:* Ernest Shepard.

*Below:* Dame Norma Major and Desmond Shawe-Taylor, Director of Dulwich Picture Gallery, at the opening of the exhibition *The Man Who Drew Pooh* at the Gallery.

*Left:* Illustrations to mark royal occasions: the coronation of Queen Elizabeth II and Queen Victoria’s Golden Jubilee.

*Above:* Pooh, Christopher Robin and Punch: three of Shepard’s most enduring images.
students. Nowadays many final-year students decide not to live in the residences; having lived independently during their professional year and enjoyed it, they choose to continue doing so in a shared flat or house during their final year.

The presence of so many students from outside the UK gives the residences a cosmopolitan atmosphere. Most of the time this works positively, but there can be stresses. ‘This can be something of a shock for some first-year students, though only in the short term,’ Richard Paxton comments. ‘After all, one of the purposes of a University is to broaden people’s experiences and most students adjust and quickly find they enjoy the mix of people.’ Each residence has a warden who, among many other things, plays a key role in maintaining behaviour and a good social atmosphere and, most important of all, provides a sympathetic and independent ear for students, many of whom are away from home for the first time. Wardens have full-time jobs in the University – several current senior members of the University served as wardens – and return ‘home’ to deal with the often complex and challenging situations that occur in large communal residences.

Adam Jakeway, President of the Students’ Union in 2001/02, describes the campus community as ‘easy-going – most people make the effort and get on well with others. The multicultural aspects are something I really enjoy about life at Surrey, and of course these culminate each year in the International Week.’ The most dramatic test of harmonious relations in the University came in the immediate aftermath of the attack on the World Trade Center on 11 September 2001. Staff, Students’ Union officials and students worked together to ensure that neither individuals nor faith or ethnic groups were stereotyped or victimised; counselling and support was available for anyone in need. ‘Everyone was immensely shocked at what happened,’ Adam Jakeway recalls, ‘but it did not result in any kind of repercussions in the University, and that’s a sign of its maturity and tolerance as a community.’

Caroline Royle, who has worked in administrative posts in the Students’ Union since the early 1980s, contrasts students then and today. ‘Even here at Surrey students were quite radical in those days. There were marches and debates, and many students were engaged by some of the political issues of the day.’ Nowadays priorities have changed, and many students have their eyes firmly set on their careers. Tony Kelly recalls that, well before he retired, student attitudes had altered enormously. ‘In the late 1970s, we struggled to fill our places, and many of our students were not very motivated. Ten years later, students were realising the value of a university education.’ Adam Jakeway admits that most students are ‘pretty apathetic’. There are currently no political societies, nor is there much interest in ‘single-issue’ campaigning on, say, the environment or human rights – putting the world to rights has fallen off the agenda. According to Fiona Wareham, President of the Students’ Union the year before Adam Jakeway, this partly reflects the wider political climate, which is failing to engage young people generally, and partly the nature of the University: ‘our scientific and technological basis makes students much more work-oriented.’ Adam Jakeway is, however, emphatic that student funding is a major issue:
It impacts on every aspect of student life, and certainly affects the effort students put into working for their degree. A lot more students have to work part-time to survive financially. This in turn affects their willingness to participate in student life. I must admit that we do find it difficult to get students out to demonstrate for grants to be restored. Either they can afford the present system, or they are too busy working to have time to make their views felt.

According to John Hobrough, who as Dean of Students is concerned with student progress, development and support, the average shortfall in students’ income is £40 per week, which means ten hours’ work each week. ‘We try to help students make the best use of the fact that they have to work, by developing transferable skills such as team-working and customer care.’

Links between the Students’ Union and the University’s management remain positive. From her unique vantage-point, Caroline Royle comments that ‘the relationship has always been quite good, but has grown much stronger over the past two or three years.’ Adam Jakeway agrees: ‘People listen to the student input. There is student representation on every major committee, and I and my fellow-officers can go up and see the Vice-Chancellor whenever it’s necessary.’

The Students’ Union itself has grown over the years into a major business with a turnover of about £2 million in 2000/01 – one of the largest in the country per capita. There is a full-time staff of thirty-five, plus over a hundred part-time student workers. The Union’s commercial activities – six bars and food outlets, up to four club nights each week – subsidise the non-commercial activities, such as welfare and advice services, societies (more than sixty of them), and sporting activities. Adam Jakeway is eager to diversify the Union’s activities so as to appeal to more students:

Until recently we have been quite mainstream. We’ve needed to get away from the bar and night-club culture and be seen as a conduit for student activity across the board. There are quite a few students who won’t go into the building because alcohol is served there. I want to channel more activity through sports and societies. Everyone has an interest, and that way we shall be able to reach out to more students and make the Union a one-stop shop for all their needs. During the academic year 2001/2002 we have begun to take real steps to reposition the Students’ Union for the next decade - to modernise and evolve with our membership and to take a lead in helping to develop the Federal University.

Finale

When the University came to Guildford, it acquired two areas of land: Stag Hill and, on the west side of the A3, Manor Farm. While the University received planning permission to develop both sites, the decision was taken to build the campus on Stag Hill, nearer the town. Manor Farm continued to be farmed. For technical reasons during the 1980s, the land at Manor Farm was returned to the Green Belt. In the early 1990s, when it became clear that Stag Hill would soon be utilised to its full capacity,
My Time at Surrey...

Peter Kench
Materials Science and Engineering, 1994-2001

It all started with a packed car park, full of boxes, TVs, saucepans, teddy bears and more boxes. This was it: Freshers’ Week, which sort of passed in a haze. My first real introduction to unlimited alcohol without having to face the parents on your return after last orders! Then it was into it, WORK, and lots of it. Looking back, this is the strongest memory of my degree. It really annoyed us, not the fact we had to work, but the quantity: we really had to do a lot of work. I was studying materials science and engineering. Engineering was the key word. Through the years we all realised that engineering was the problem – all degrees with engineering in the title had a solid timetable, nine till five. My flatmates never saw the morning: psychology, sociology, hotel and catering all required a lot of thought and rest, apparently.

So it was work that I remember, the assignments, and then the extended assignments (these were the worst – almost a thesis had to be written!). The amount of work culminated in the most hectic time I will ever know, packed with five extended assignment deadlines. So, while our psychology compatriots were sunning themselves on the grassy bank opposite the library, we were in our dark rooms working feverishly to meet the deadlines. Although our finals were in only two weeks, these were forgotten. I am not sure how much I slept. But I remember spending a fortune in the Coca-Cola machine opposite my room, doing all-nighters, meeting my mates at five in the morning to check answers! With that hurdle passed, a quick breath, then bang, straight into Finals.

Was that it, all over, and into the big wide world? Not so fast, I thought. During my degree, in what spare time I had, I became quite proficient at cycling: road racing, like the Tour de France, but round the Surrey lanes dodging horse-boxes instead! Races were often more than 100 miles long, so the training for this was quite extensive. After discussions with a professor in the Department, I realised that a PhD required flexible working. Excellent, I thought: train on my bike during the day and, as I was used to it, work through the night! Three years passed, during which I became a bit handy at cycling, so much so that I managed to secure a sports grant from a collaboration formed between the University sports centre and Guildford Borough Council. This was topped off by recognition from the Vice-Chancellor and the award of University Colours for winning the British Universities Sports Association cycling road race championship in 2000. Oh, and I also got a PhD for my troubles!

Peter Kench joined the University as an undergraduate and completed his PhD, on light-emitting nitrides, seven years later. He hopes to work in industry after his current post, as a Research Fellow in the School of Engineering, comes to an end. He still cycles, and in 2001 represented the south-east as part of a team riding the nine-day, 800-mile Irish Milk Race against international professionals.
the University started to look towards Manor Farm for further expansion. Working in close co-operation with Guildford Borough Council, a proposal was put forward to modify the Guildford Local Plan to remove Manor Farm from the Green Belt and so allow the University to develop there. In October 2001, following a lengthy scrutiny, the Independent Planning Inspector supported the University’s case, which had been ably presented in great detail by Patrick Dowling and Peter Butterworth. In many ways the wheel had come full circle. Four decades previously, the University’s earliest advocates had had the foresight to realise the economic, social and cultural contribution a university would make to Guildford and to the south-east region. Now the force of their arguments was once again recognised, and the way was opened for a new chapter in the University’s life.

In just thirty-five years, the University has travelled far. Hard work, a fiercely loyal staff, imaginative research, enthusiastic students, a welcoming and supportive local community, and a fair measure of good luck – all helped to build a successful world-class university. Now, its future secure, the University can look forward with justifiable confidence to the next thirty-five years, and beyond.