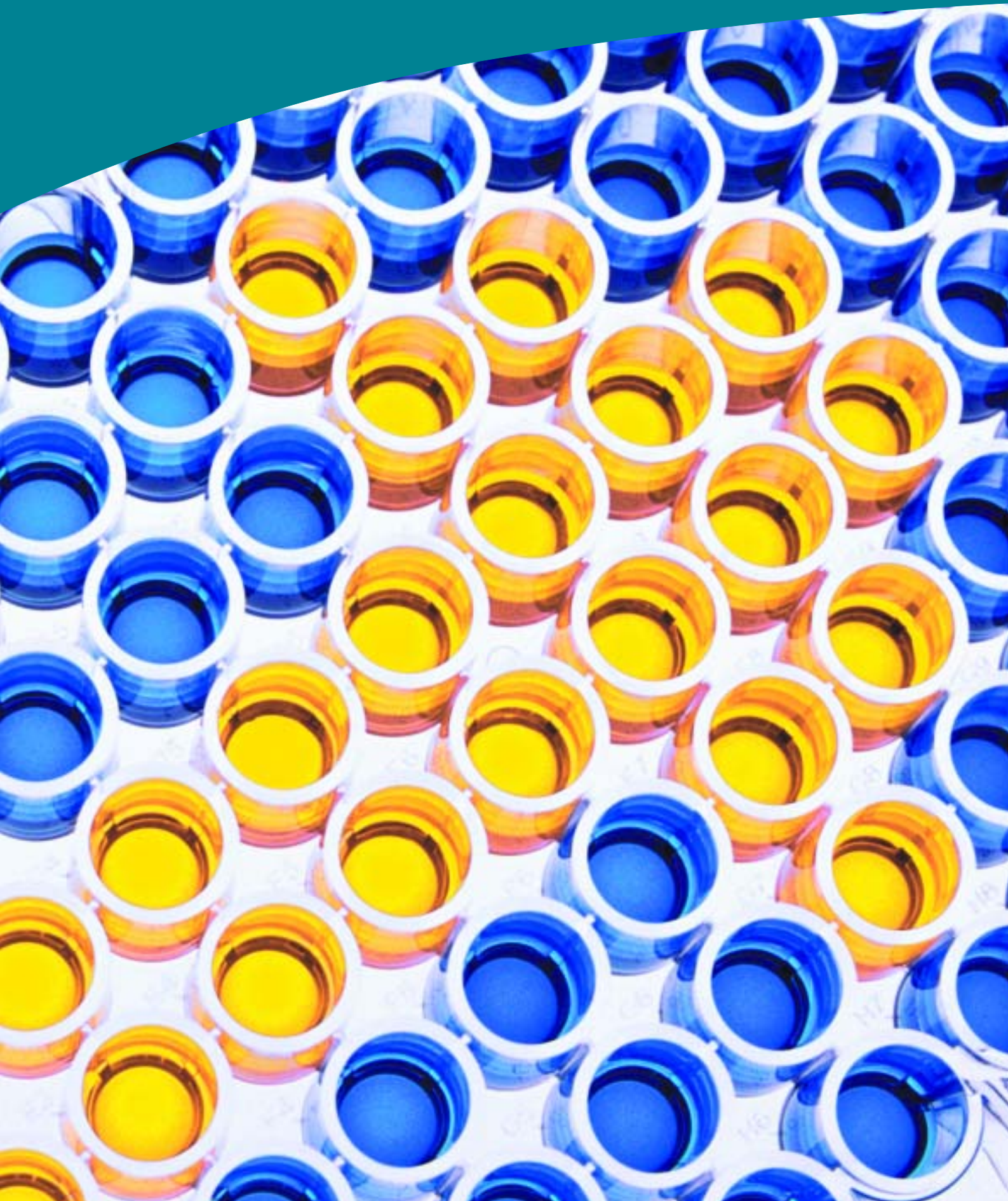




*Setting standards
in analytical science*

Report and Accounts 2003



Past, present

Sales have grown from
£15.5M in 1996 to £52M
in 2003.

1996

LGC, FORMERLY AN AGENCY OF THE DEPARTMENT OF TRADE AND INDUSTRY, IS PRIVATISED

BP CHOOSE LGC AS OUTSOURCE PARTNER FOR THEIR PETROLEUM GEOCHEMISTRY UNIT

1997

LGC ACQUIRES THE DIAGNOSTICS COMPANY, UNIVERSITY DIAGNOSTICS LTD

AGILENT ESTABLISHES ITS UK TRAINING CENTRE AT LGC

1998

LGC IS SELECTED TO MANAGE THE UK FORESIGHT LINK 'LAB-ON-A-CHIP' PROGRAMME

LGC'S NEW DNA DATABASE LABORATORY IS OPENED BY SIR PAUL CONDON, METROPOLITAN POLICE COMMISSIONER

LGC ACQUIRES ICI'S RUNCORN ANALYTICAL UNIT

1999

LGC OPENS PURPOSE-BUILT LABORATORY FOR FIVE YEAR CONTRACT WITH THE VETERINARY MEDICINES DIRECTORATE, SURVEYING RESIDUES IN FOODSTUFFS

COMPANY ESTABLISHED TO DISTRIBUTE REFERENCE MATERIALS IN SWEDEN

PHARMACOGENETICS JOINT VENTURE LAUNCHED WITH DUNDEE UNIVERSITY

t and future

Profit before tax has grown from £200K to £4.6M over the same period.

2000

REFERENCE MATERIALS DISTRIBUTION COMPANIES ESTABLISHED IN FRANCE AND SPAIN

LGC WINS PARTNERSHIP CONTRACT TO PROVIDE OUTSOURCED ANALYTICAL SUPPORT TO INFINEUM

LGC ESTABLISHES STRATEGIC ALLIANCES WITH ATCC AND USP, WORLD-LEADING REFERENCE STANDARDS PRODUCERS

2001

MEDICINES CONTROL AGENCY AWARDS TEN-YEAR OUTSOURCING CONTRACT TO LGC

LGC FORMALLY OPENS ITS REFURBISHED AND EXPANDED RUNCORN LABORATORIES

DEFRA AWARDS SCRAPIE GENOTYPING AND BSE CONTRACTS TO LGC

2002

LGC PROMOCEM, MARKET LEADER IN REFERENCE STANDARDS DISTRIBUTION, IS LAUNCHED AFTER LGC'S ACQUISITION OF THE PROMOCEM GROUP IN 2001

LGC WINS SIGNIFICANT CONTRACTS FOR DTI'S MEASUREMENTS FOR BIOTECHNOLOGY PROGRAMME

LGC WINS ROSPA PRESIDENT'S AWARD FOR OCCUPATIONAL HEALTH AND SAFETY

2003

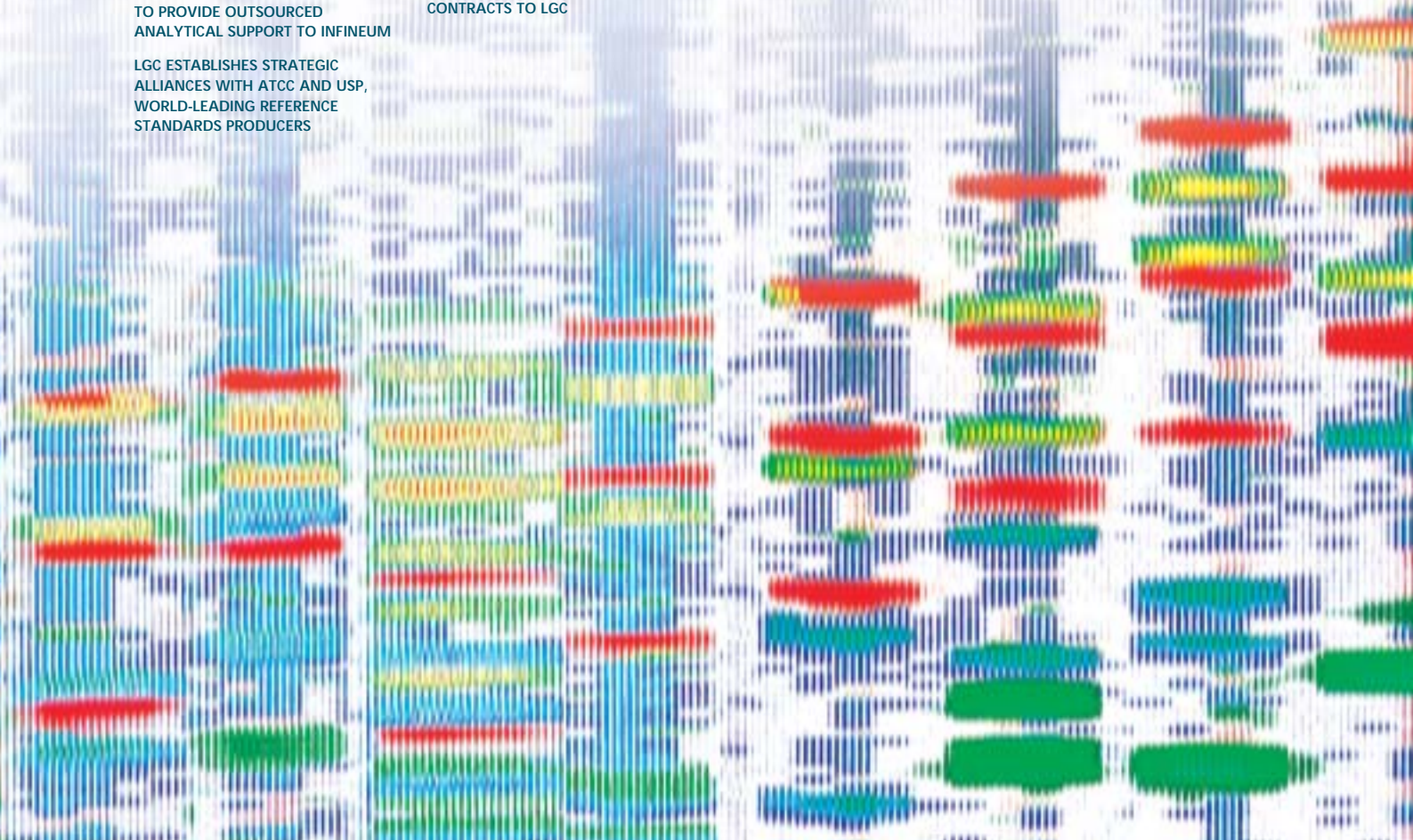
LGC EXCEEDS CORPORATE PLAN TARGETS: £50M SALES; £5M OPERATING PROFIT BEFORE INVESTMENTS

LGC EXPANDS NEW DNA CRIME SCENE LABORATORY AT TEDDINGTON

SUB-LICENCES FOR CYP2D6 PHARMACOGENETIC PATENT AGREED TO LEADING BIOTECH COMPANIES

LGC OPENS DNA FORENSIC LABORATORIES AT RUNCORN

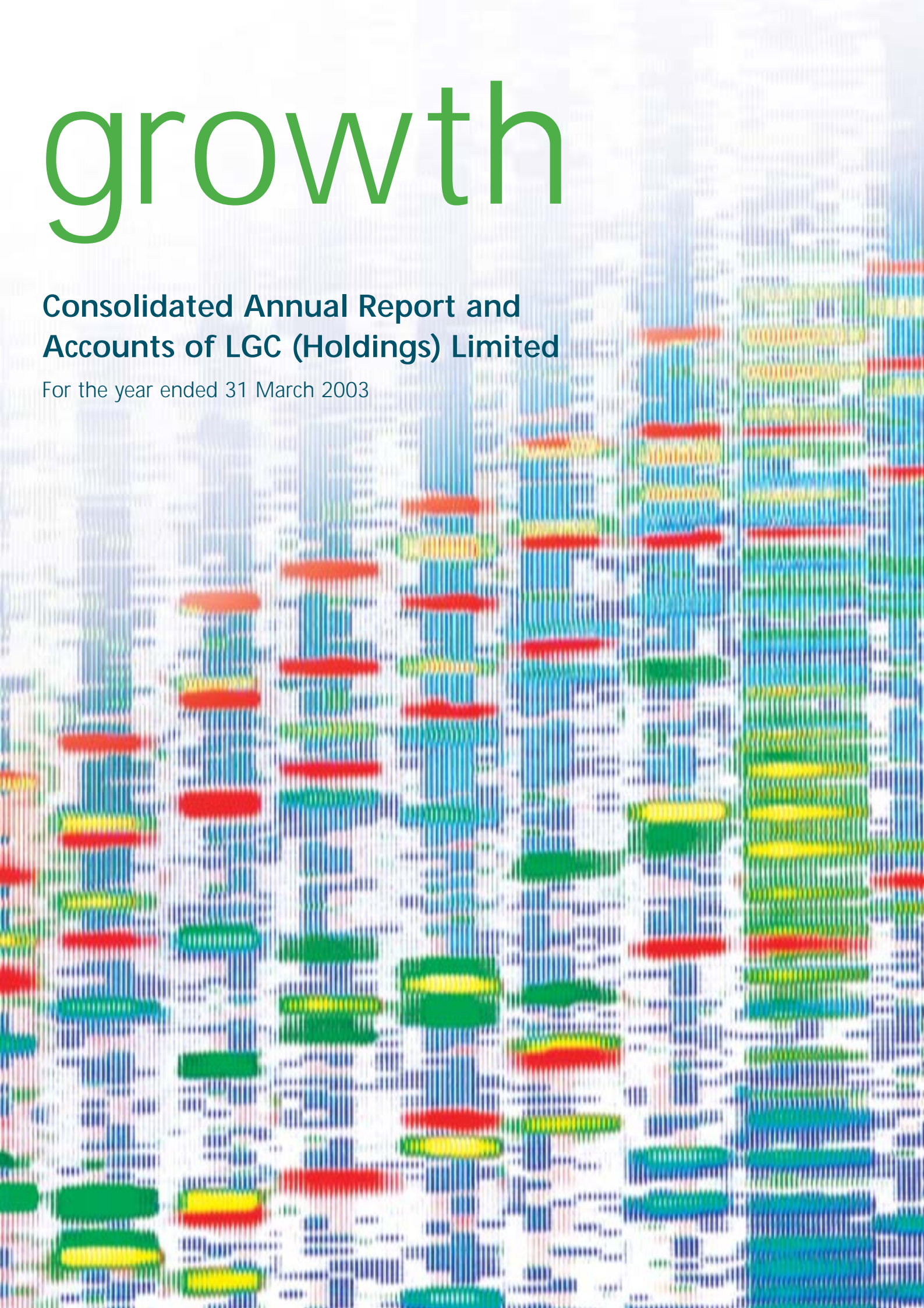
LGC INVESTS FURTHER IN THE EXPANSION OF BSE TESTING SERVICES



growth

Consolidated Annual Report and Accounts of LGC (Holdings) Limited

For the year ended 31 March 2003



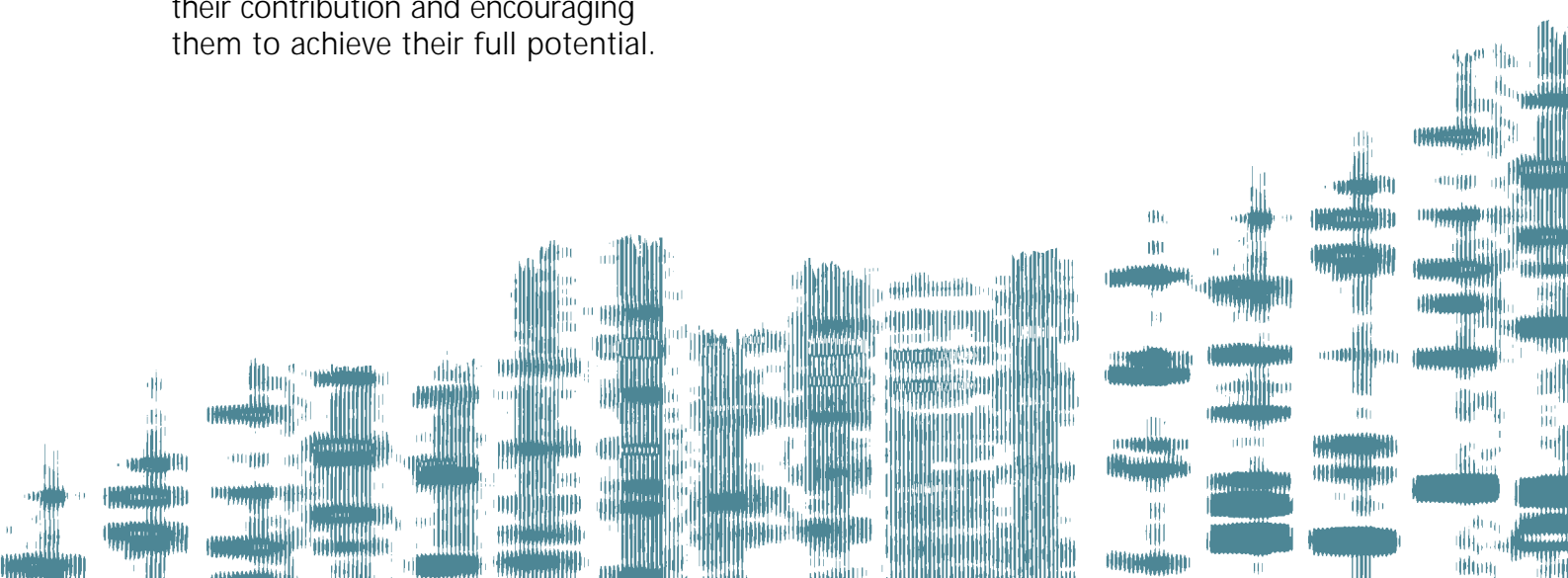
Our vision

To be an international business, recognised for setting standards in analytical science and providing best value products, services and solutions.

Our values

At LGC we seek to create value for our stakeholders, ensuring that our activities enrich society, science, staff and our shareholders. In so doing:

- We **promote** the value of sound analytical **science** in the UK and internationally, to enhance quality of life and industrial competitiveness.
- We focus on our **customers**, seeking to add value, ensuring quality in all we deliver and honouring our promises.
- We respect and develop our **people**, recognising and rewarding their contribution and encouraging them to achieve their full potential.
- We uphold high standards of business ethics and work with **integrity**, maintaining an independent and professional position.
- We foster a dynamic and **innovative** spirit, investing continuously to improve our processes and technology and to maintain our leading edge.



Chairman's statement



For the seventh year in succession, LGC has maintained excellent growth in sales and profits. Our target of achieving 25% of sales from outside the UK has been realised and we have laid the foundation for further substantial growth.

Ian Kent
Chairman

Despite the current uncertain climate for business and falling values of many technology companies, the markets for high quality and advanced technical services have remained strong. The UK government is committed to using the private sector, where it is appropriate to do so, and many corporations continue to outsource technical support which is not core to their business. LGC occupies an increasingly strong position in the provision of often complex analytical and diagnostic services to both public and private sectors. With an ever-increasing demand for quality, our reference standards distribution business, LGC Promochem, has many opportunities for growth across Europe, India and beyond.

LGC is committed to continuous investment to ensure the Company stays at the forefront of analytical and diagnostic science. We therefore welcome the tax credits for research and development in the UK which will support our continuing and substantial investment in technology.

We have continued to focus our business development and investment in food safety, genetic services and reference standards and this led to the disposal of two business operations: tobacco testing and our water industry consultancy, Pipeline Developments Ltd.

Like those of many other companies, LGC's pension fund has been affected by falling stock markets across the world and reduced interest rates. A recent triennial valuation indicates that our defined benefit pension scheme is 75% funded and the Company has accordingly decided to increase its contributions. Because of the young age profile of our staff, the FRS 17 calculations are particularly sensitive to discount rate

assumptions and we do not believe they fairly reflect the long-term position of LGC's pension scheme. We have introduced a defined contribution pension scheme for employees joining after October 2002. Increased property values, particularly in the UK, have prompted us to seek an independent valuation of our property assets. The freehold on the Teddington site has been valued at £14M above the net book value.

It is LGC's policy to maintain high standards of corporate governance. In this context the Board has examined the recommendations of the Higgs and Smith reports and will be considering relevant changes in the coming year.

The Company paid a special dividend for 2002/03 of £5.996 per 'A' ordinary share which was linked to the sale of RSC's shares and was waived by 3i. The Board recommends a final dividend of £267,770 on 3i's dividend share and proposes a dividend of 10p on ordinary and 'B' ordinary shares.

I am very pleased that many staff who were not previously shareholders had the opportunity to purchase shares in January 2003 and that further share option schemes were put in place. The success of the Company is due to the skills and dedication of staff throughout the Company and I am glad that they will have the opportunity to share in its future success.

During the year our Board was further strengthened with the appointment of Dr Nigel Law as Group Operations Director and Marion Sears as a Non-Executive Director. We welcome them to the Company.

Ian Kent
Chairman

Chief Executive's statement



Breaking through the £50M sales threshold has fulfilled our corporate plan targets. Last year sales grew by 26% to £52M and operating profit before tax by 83% to £4.6M. Profit, including exceptional items, amounted to £5.5M.

Dr Richard Worswick
Chief Executive

The early years of the Company were characterised by a drive to increase and diversify sales. With over 25% of our business now coming from outside the UK and 35% from outside the public sector, we have succeeded in creating a robust and secure core business. I am pleased that our profitability is now also improving, allowing us to invest further in equipping our laboratories and expanding our activities.

Our reference materials business, which a year ago we branded LGC Promochem, has been highly successful. Our companies throughout Europe have performed well and sales through our joint venture company in India have grown significantly. We are building on this success by setting up a new distribution company in Milan, Italy, and we have recently acquired an important supplier, Mikromol GmbH, which is based near Berlin, Germany. We have also purchased the minority shareholding in our Spanish distribution company. We are confident that these developments will further strengthen our position as the leading supplier of reference materials and biological cell standards in Europe and India.

During the first year of operation of our purpose-built BSE testing laboratory we reported the results of over 200,000 tests for the UK's Over Thirty Month Scheme. The UK testing regime is likely to change during the coming year and later in 2003 LGC will open BSE testing laboratories in Runcorn and Edinburgh to cope with the anticipated increase in demand. We have also been extending our R&D effort in this field. As part of the European Commission approval process, we helped evaluate a test for abnormal prion proteins (which cause BSE) developed by Nobel prize winner Professor Stanley Prusiner through his company InPro Biotechnology. LGC and InPro have now entered into a long-term agreement to enable this test to be made available across Europe.

Other recent notable achievements include:

- Our new laboratory at Teddington dedicated for use by the Medicines Control Agency (now renamed the Medicines and Healthcare products Regulatory Agency - MHRA) became fully operational during the year. It was formally opened by the then Health Minister, Lord (Philip) Hunt, who cited this ten-year contract as a model public/private partnership for the provision of technical support services to government.
- Having successfully completed the first full year of operation of our DNA crime scene laboratory at Teddington, we have built a similar state-of-the-art laboratory at Runcorn which will be coming on stream in summer 2003.
- We have further developed advanced mass spectrometric methods for the determination of veterinary drug residues, and major investment in additional LC-MS-MS instrumentation has enabled us to increase our service to the Food Standards Agency and service inspection of, for example, poultry products imported from South-East Asia and South America taken at ports of entry into the UK.
- LGC Promochem's new distribution agreements include an important collaboration with ChromaDex to distribute a range of phytopharmaceutical reference standards. Such materials are increasingly important as herbal pharmaceutical manufacturers strive to improve their quality standards.
- We have continued to sub-license worldwide a patent on CYP2D6, a genetic sequence which indicates whether the prescription of certain drugs is compatible with the genetic make-up of the patient.
- LGC is the core partner in InsightFaraday, a new £2.2M Faraday Partnership programme, supported by the Department of Trade and Industry and the Engineering and Physical Sciences Research Council, on High Throughput Technologies (HTT). The aim of InsightFaraday is to make HTT an integral part of new product and process development.



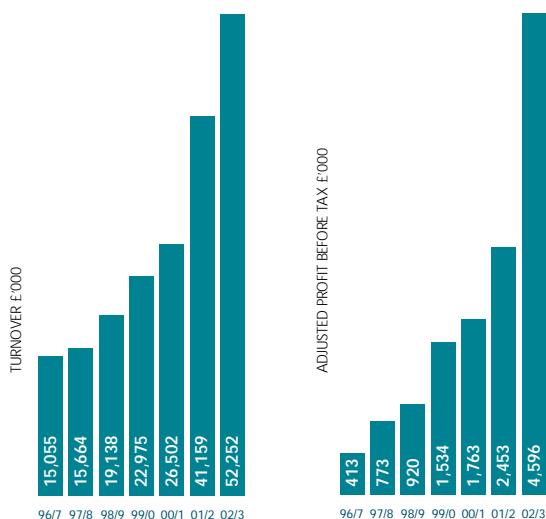
We continue to place great emphasis on management training and staff development. We have expanded our internal management skills development programme and are continuing our programme with Ashridge Business School. We are also pleased to have improved facilities for staff at Teddington, which already include a day nursery, with the opening of our new staff restaurant. Having adopted Cancer Research UK as our charity for the year, staff took part in many enjoyable and entertaining fund-raising events.

President's Award for Occupational Health and Safety for the second year running. Our companies in France and Poland have become certified to ISO 9001 and the scope of our accreditation to ISO 17025 has been further extended. Our pharmaceutical facility at Runcorn was successfully audited by the US Food and Drug Administration for current Good Manufacturing Practice.

1. The new staff restaurant in Teddington opened on 3 March 2003
2. Sir Robin Young, Permanent Secretary, DTI (centre), with Dr Derek Craston, Head of Pharmaceutical Services (left) and Clive Hall, Group Finance Director (right)
3. Jo Bloomfield, Head of Marketing and Communications (left), discusses the opening of the Milan office with Liz Bewick, General Manager, LGC Promochem (right)

We welcome large numbers of visitors to our sites in the UK and Europe and we are pleased that these have included Professor Stanley Prusiner, Ian Gibson MP and Brian Iddon MP, Chairman and Member of the House of Commons Select Committee on Science and Technology, Professor John Collinge, Head of Department and Director MRC Prion Unit, UCL, and Sir Robin Young, Permanent Secretary, DTI. We have contributed to science education in general, and analytical science in particular, through events in schools, colleges and universities and I am pleased that a number of our staff are taking part in SETNET, the DTI initiative to forge better links between schools and science-based organisations.

Our excellent performance last year was in large measure due to the efforts of our staff and I thank them for their dedication, professionalism and enthusiasm.

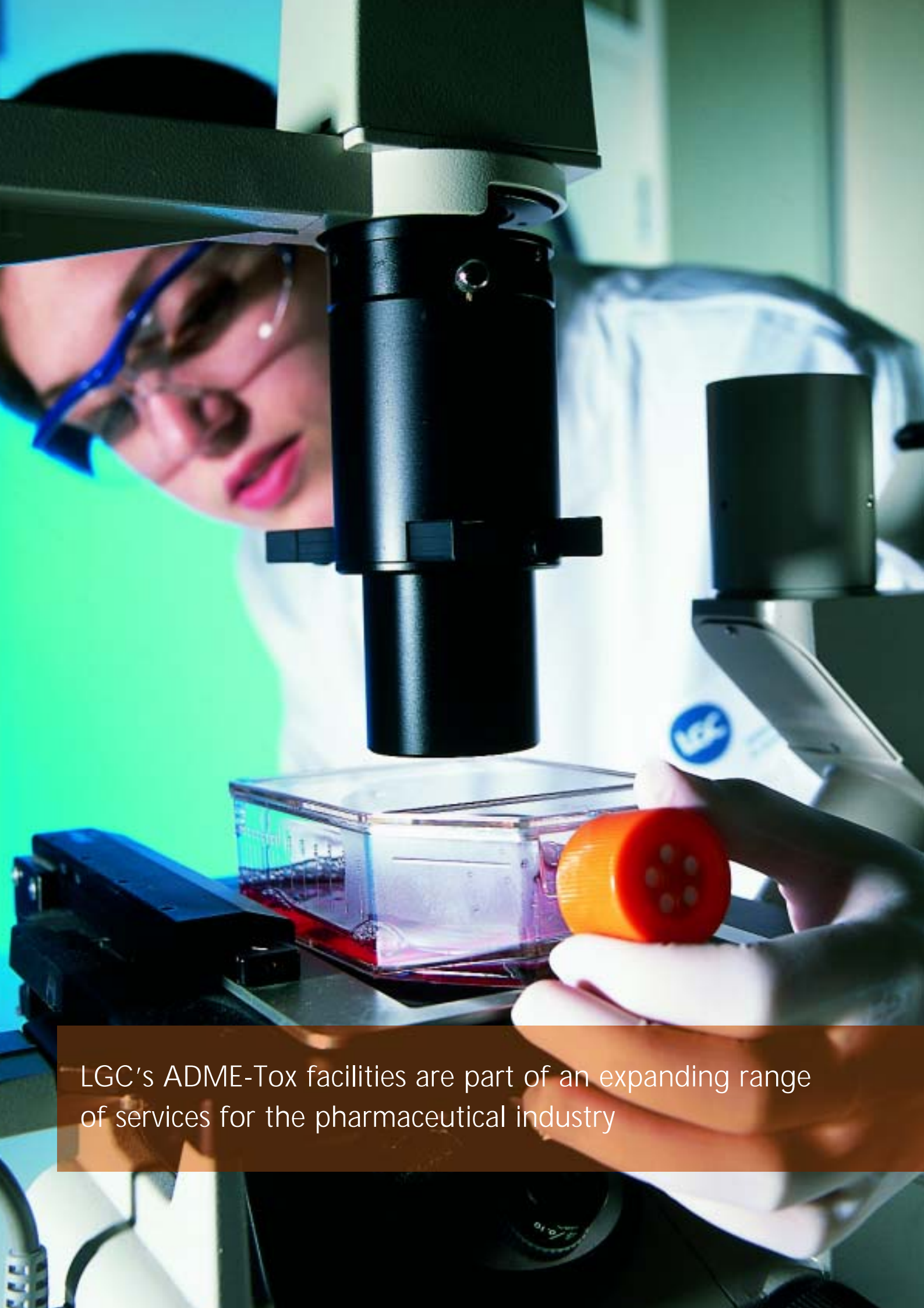


Turnover
Years ended 31 March

Profit
Years ended 31 March

Quality, safety and environmental performance underpin all aspects of our operations. We were pleased to be awarded the prestigious RoSPA

Dr Richard Worswick
Chief Executive



LGC's ADME-Tox facilities are part of an expanding range of services for the pharmaceutical industry

New ventures

Building our pharmaceutical services business

LGC is well known to, and has high credibility with, regulatory authorities in the pharmaceutical and other sectors. We are now expanding the services we offer directly to the pharmaceutical, healthcare and biotechnology sectors. We believe our rapidly growing pharmaceutical services business has enormous potential. In March 2003, we appointed Dr Sharon Alldrick, an experienced life sciences business manager, to develop this new business and we have recently promoted Dr Derek Craston, previously head of our BioAnalytical Innovation team, to take charge of this new business area. We will be building up the resources devoted to it during the coming year.

Estimates for the market for analytical services and clinical trials to the pharmaceutical, healthcare and biotechnology sectors vary widely but even at the lower end, the estimates are over \$5 billion worldwide. Our market research suggests that the CRO (contract research organisation) space is overcrowded. However, customers would welcome providers with specialist services and products capable of accelerating new product development and regulatory approval.

ADME-Tox

During the year we launched our new ADME-Tox service, which provides a comprehensive cell-based service for screening drug candidates. The service is supplemented by our extensive mass spectrometric capabilities for the characterisation of drug metabolites, through the use of LC-MS-MS and our

FT-ICR mass spectrometer with its outstanding resolution and mass accuracy.

Pharmaceutical impurities

LGC's recent acquisition of the German-based Mikromol, world leader in the synthesis and sale of pharmaceutical impurities and metabolites as reference materials, strengthens our position in that space between the regulators and the pharmaceutical and biotechnology industries. Fuelled by the growth of the generics market, which is predicted to grow substantially in the medium term, impurities have increasingly become the focus of attention by regulatory authorities. With the acquisition of Mikromol, LGC will be able to provide a complete custom synthesis and consultancy service to our customers, particularly in support of active pharmaceutical ingredient manufacturing and in compliance with increasingly stringent regulations.

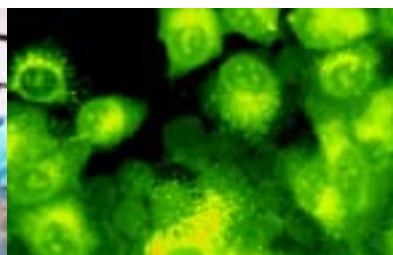
Reference materials are needed in the identification and quantification of impurities, an important stage in

LGC is well known to, and has high credibility with, regulatory authorities in the pharmaceutical and other sectors. We are now expanding the services we offer directly to the pharmaceutical, healthcare and biotechnology sectors.



From left: Amanda Eames, Group Marketing Manager, Dr Ray Ah-Sun, Director, Business Development, and Dr Sharon Alldrick, Pharmaceutical Business Development Manager

1. The MHRA laboratory at Teddington
2. Dr Keith Anderson, Cell Biologist, in the ADME-Tox laboratory at Teddington



drug development, and an essential component of regulatory submissions and of quality control in batch releases.

This range of products will be further enhanced by our existing arrangements supplying USP pharmaceutical reference standards and ATCC biomaterials across Europe.

Point-of-care technologies

LGC has developed a genetic technology (HyBeacons™) which enables a portable device to detect and distinguish variation in medically relevant genes in under 30 minutes from the taking of the sample. In addition, equally rapid HyBeacon tests have been developed to identify certain infectious micro-organisms. This technology can also be applied to pharmacogenetic diagnostics, potentially allowing the doctor or pharmacist to adjust medications to suit the individual's ability to utilise the drug. Further applications are possible including veterinary diagnostics and food hygiene services and a programme is to start evaluating the technology for forensic identification purposes.

New medical genetic services

LGC is actively developing new medically relevant genetic diagnostic services built on novel mass spectrometry methodology designed to characterize gene sequences rapidly. Many disease-causing genes can occur by a single DNA change at just one point in the thousands of coding chemicals that make up the gene. The identification of such changes is a major challenge to clinical laboratories. LGC is combining its strengths in mass spectrometry and DNA analysis to validate a new methodology that could provide diagnosis in days, rather than the weeks it presently takes.

Pharmacogenetics

Our collaboration with Dundee University has enabled us to conclude a number of major international licensing deals this year for CYP2D6, an indicator for the poor metabolism of certain medications. The field of pharmacogenetics is one which we believe will expand greatly over the next few years. Alongside this activity, LGC has seen growth in demand for genetic analysis to complement pharmaceutical clinical trial studies.

Medical and Healthcare products Regulatory Agency laboratories

During the year, we completed the commissioning of the Medicines Control Agency (MCA) laboratories, the MCA having since been incorporated in the Medical and Healthcare products Regulatory Agency (MHRA). The laboratories were officially opened by

The LGC/MHRA lab partnership model

The key features of the MHRA laboratories are:

- *MHRA retains full control of the work programme and its prioritisation*
- *LGC manages the staff and all operations*
- *The MHRA laboratories are equipped for routine work but MHRA has preferential access to specialised techniques available from other LGC laboratories.*

1. From left: Uwe de Buhr, Dr Hans Zimmermann and Dr Günter Funk confirm the Mikromol sale agreement
2. Lord Philip Hunt, then Health Minister (centre), officially opened the MCA (now MHRA) laboratories at Teddington in September 2002



Lord Philip Hunt, the then Health Minister, on 17 September 2002. Now fully operational, these dedicated laboratories are equipped with state-of-the-art facilities and the full complement of staff to perform a comprehensive set of routine analyses and a growing volume of more complex investigations. Many of these investigations are in collaboration with other worldwide regulatory agencies. Non-routine work needing special techniques, such as LC-MS-MS, ICP-MS, NMR or Fourier Transform MS, is carried out in other LGC laboratories at Teddington and Runcorn. We are pleased that the MHRA laboratories further enhance LGC's reputation as a centre of excellence for the physico-chemical and biological analysis of medicinal products.

Building our business in Europe

LGC has moved further towards having full-scale laboratory facilities in continental Europe with the acquisition of Mikromol, based in a biotechnology business park south of Berlin, Germany. We have already started a programme to expand substantially Mikromol's modern laboratories to increase the range of products on offer and to meet demand for custom synthesis of impurities and metabolites and for other services.

To spearhead the development of our business in continental Europe, we have appointed Tilo Karrer to the newly created senior position of Business Development Manager, Europe. Tilo is based in Wesel, Germany and was previously Country Manager in Germany for LGC Promochem.

Expanding our services in India

LGC has a successful subsidiary in India, with offices in Bangalore and Mumbai, for the distribution of reference standards, mainly to the growing

pharmaceutical industry. In parallel with our investments in Europe in pharmaceutical services, we are opening a technical centre in Bangalore that will specialise in pharmaceutical process chemistry, offering the renowned skills of Indian pharmaceutical chemists to our customers in the rest of the world.

Collaborations

We consolidated the joint venture with our Teddington neighbour, the National Physical Laboratory (NPL), towards the formation of an innovative Biomeasurement Centre. NPL's new bioscience team complements LGC's strengths. Together we are ideally placed to deliver better biomeasurement and thereby to assist pharmaceutical companies through facilitating dealings with regulators, reducing time to market and improving knowledge transfer. This is a significant collaboration between two national measurement institutes and represents great potential for added value for government programmes. It has delivered already a strong formulation of the Measurements for Biotechnology programme for 2004 - 2007.

1. LGC's BSE testing facility at Teddington





Continued investment in new instrumentation includes a high resolution ICP-MS for our Specialised Techniques laboratory

Technology and innovation

Technology is at the heart of LGC's strategy, opening doors to new commercial contracts. In particular, it is essential that our work for government is underpinned by the best available technology, especially where it is in support of regulatory compliance.

Major R&D programmes

LGC won over 50% of the work tendered for the DTI's new Measurements for Biotechnology programme. The programme is aimed at supporting UK biotechnology by improving measurement techniques as they emerge from the science base to commercial application. LGC is working with over 30 organisations ranging from SMEs through to major pharmaceutical and key university research groups. Our activities cover all of the themes of the programme: microarrays, proteomics, cells, physico-chemical methods and trace measurements. As an example of the work, the proteomics project will help analysts to quantify complex protein mixtures, underpinning the understanding of disease states and helping with drug discovery and development.

During the year, LGC completed the major Laboratory on a Chip Foresight LINK consortium programme and initiated the InsightFaraday partnership on High Throughput Technologies. Lab-on-a-chip delivered over 30 publications and at least three patents, as well as products such as the modular chemical microreactor from the SME Epigem. A long-term UK initiative has been proposed to support lab-on-a-chip SMEs in the global commercial environment.

The majority of our external R&D programmes are highly collaborative, with partners including universities, large and small industrial organisations and research institutes.

Enhancing expertise and capabilities

LGC's high level of investment in leading-edge mass spectrometry has continued with the acquisition of a high resolution multi-collector ICP mass spectrometer. This state-of-the-art instrument enables us to make highly accurate measurements at trace levels, particularly important for the international key comparisons we undertake as the UK's national measurement laboratory for chemical analysis. These studies are arranged through the International Weights and Measures organisation, the BIPM, in order to establish a global chemical measurement system. The instrumentation we use for such studies also enables us to provide high accuracy values for our reference materials.

Our work in this field of high accuracy elemental measurements was recognised by the presentation of the best lecture award to a member of our staff,

Investing in innovative technology, developing new methods and improving processes are all integral to LGC's business success.



Dr Ruth Hearn, winner of the best lecture award at the 8th International Conference on Plasma Source Mass Spectrometry

1. The Technology Translators at the official launch of the InsightFaraday partnership in December 2002
2. Morten Andersen in the microarrays laboratory in Teddington



Dr Ruth Hearn, at the 8th International Conference on Plasma Source Mass Spectrometry in September. Three of our staff have also received Glazebrook Fellowships, which enables them to work for several months in other leading international laboratories. Raimund Wahlen spent three months working in the National Research Council, Canada, Dr Gavin O'Connor will spend three months at NIST in the USA and Dr Peter Evans is being seconded to the Joint European Research Centre, IRMM, in Belgium.

LGC continues to extend the applications of mass spectrometry. Applied in the past to trace elemental and organic analysis, mass spectrometry is rapidly becoming an indispensable technique for biomeasurement, particularly for high throughput genetic measurements and proteomics. Our pioneering work on the use of Isotope Dilution Mass Spectrometry for the accurate quantification of DNA is bearing fruit and has recently been published.

The high quality of our research and development work was recognised in the latest audit undertaken by the Royal Society of Chemistry (see Figure 1), who awarded our R&D work the highest grade, commenting: "It is clear that there is no other organisation in the UK with the resources and expertise to provide all of these functions."

Exploiting technology capabilities

During the year, LGC continued to develop advanced LC-MS-MS methods for the determination of veterinary drug residues that are applicable to a wide range of sample matrices, details of which have been published and presented at scientific meetings. LC-MS-MS methods for the determination of residues of the herbicide glufosinate and its metabolites, including those metabolites produced by crops which are genetically modified to be glufosinate tolerant, were also developed.

LC-MS technology has also been used to develop a pesticide multiresidue procedure that complements our existing GC-MS multiresidue methods and expands the analytical portfolio that can be offered to customers. For the Food Standards Agency, our staff have also developed methods for the determination of diverse compounds such as marine biotoxins, mycotoxins, food colours, emulsifiers and vitamin D, and worked on the development of DNA markers for folate nutritional status and the development of novel methods (DNA- and mass spectrometry-based) for the detection of genetically modified foods.

International collaborations

Professor Stanley Prusiner, who invented the term prion and was awarded the Nobel Prize for medicine in 1997 for his investigations into prion diseases, visited LGC in November 2002. Following that visit, LGC worked with Professor Prusiner's company,

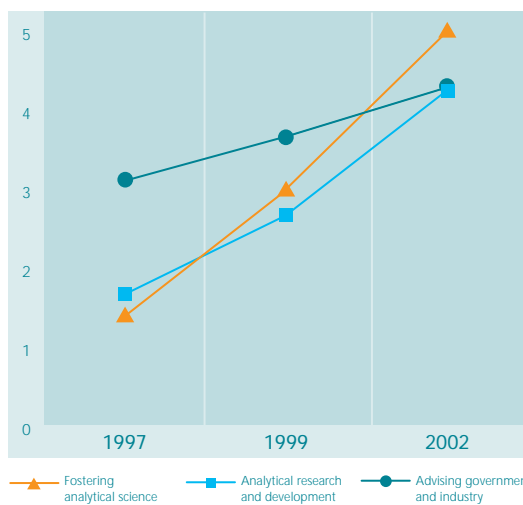


Figure 1: Progress of DTI-funded activities, classified according to delivery category and scored on the standard RSC audit scale (highest achievable score is 5)

1. LGC continues work in the field of proteomics with the Bruker FT-ICR mass spectrometer
2. Professor Stanley Prusiner (right) and Darleen Groth (centre) of InPro Biotechnology visit the BSE testing laboratory in Teddington with Dr Peter Farnell, Head of Food Chain Analysis (left)



InPro Biotechnology, to assess a new conformational dependent immunoassay (CDI) for the detection of the abnormal prion protein (PrP^{Sc}) developed in Professor Prusiner's laboratory, as part of a European Commission evaluation and approval process. Approval for the new test was given in March 2003 and LGC has since entered into a long-term agreement with InPro to work with them to introduce the test into the UK testing programme.

We continue to work closely with other major international laboratories, particularly in the standards field. We are collaborating with the EU's IRMM and the German government's research and testing institution, BAM, to establish a European consortium for the supply of high quality reference materials. In the biomeasurement field, we continue our close collaboration with the US standards institute, NIST, to develop standards for DNA analysis.

Regulation and standards

The interface between government as both regulator and supporter of industry, the industry itself and the consumer base is highly complex. LGC has continued to play a key role at this interface by acting in a technical facilitation capacity in support of all stakeholders, and in response to the key drivers. Through its Government Chemist function, LGC has provided advice, surveillance, training, standardisation and R&D in a diverse range of chemical and biological measurement sciences and technologies. LGC has recognised and responded to the ever-changing climate of regulation, trade pressures and consumer demand by setting relevant and forward-thinking agendas and by collaborating widely with appropriate partners. We have improved our regulatory information and support services to industry through initiatives such as:

- Production of new Regulatory Atlases including a new Biotechnology Regulatory Atlas which provides a route-map through the legislation affecting this sector;
- Launch of an IT-based Regulatory Advisory Service aimed at providing tailored advice to individual companies on a range of regulatory aspects;
- Formation of regulatory clubs on industrial and chemical themes, such as the preparation and submission of Pollution Prevention and Control (PPC) compliance documentation.

A core pillar of the Government Chemist function is the statutory duty to act as referee analyst in the resolution of disputes relating to regulatory enforcement. The first referee determination of GM contamination in food was among the formal samples completed successfully during the year.

Sharing knowledge and best practice

Given the diversity of LGC's activities and its pre-eminent position in the analytical marketplace, sharing scientific knowledge amongst our 600 staff is an important aspect of the operation. In addition to direct knowledge transfer through collaboration and briefings, much of our work is published in the peer-reviewed literature. During the year, all staff received new training on the importance of quality to the organisation, championed by Director for Group Operations, Dr Nigel Law. Staff were also encouraged to present their work to others at a series of lunchtime lectures and to attend lectures given at LGC by external speakers. Monthly coffee mornings have given staff an opportunity to learn more about other parts of the Company's activities and, in November 2002, LGC's Teddington site opened its doors to the local community to demonstrate the benefits of some of our work in everyday life.

1. The recently published Regulatory Atlases
2. Selvarani Elahi, Head of Food Chemistry (right), demonstrates laboratory techniques to a young visitor at the open evening held at Teddington in November 2002



1



2



Setting standards
in analytical science

High throughput, high accuracy analytical services depend on advanced instrumentation such as this LC-MS-MS in our veterinary residues laboratory

Analytical and diagnostic services

LGC's analytical and diagnostic services are vital to production across many industries, protecting consumer health and improving industrial competitiveness by helping companies get products to market more efficiently. LGC's services range from analysing pesticides and veterinary residues in foodstuffs and assisting police constabularies in solving crime, to testing baby products to ensure that the chemicals used in manufacture are safe.

Food science

During the year increasing demand was placed on LGC's BSE testing laboratory, which provides a service to DEFRA. At the end of 2002, LGC was testing up to 1,550 bovine brain samples a day for the presence of abnormal prion protein (PrP^{Sc}) and reporting results within 24 hours. Our purpose-built BSE testing laboratory, which operates under the quality requirements of ISO 9001 and is accredited by UKAS to the requirements of quality standard ISO 17025, has been expanded during the year to cope with the increased workload.

LGC has continued to expand the scope of its veterinary residues testing business. The principal activity is the analysis of animal tissues, foodstuffs and feeds for the presence of veterinary drug residues for the Veterinary Medicines Directorate's statutory national surveillance scheme. This year's analytical programme will deliver approximately 36,000 results. Recent decisions relating to imports from outside the European Union have led to an increased testing requirement for imported produce. LGC was one of three UK laboratories with the facilities and expertise to perform these tests. We provide a service both to border inspection posts for regulatory enforcement testing and to importers and

traders. The demand for analysis continues to grow and to provide the required additional testing capacity LGC has purchased a third LC-MS-MS dedicated to veterinary drug residue analysis.

LGC's Pesticides team has expanded its development programme of methods of analysis to identify and determine lower concentrations of pesticide residues in a wide range of foodstuffs. This ensures that our analytical service meets the scope and stringent quality requirements demanded by the Pesticides Safety Directorate, in support of the UK's surveillance programme for pesticide residues in foodstuffs.

Nutritional surveys and a range of method development projects covering topics as diverse as food colours, emulsifiers, mycotoxins, marine biotoxins and vitamin D determination in feed have been performed for the Food Standards Agency.

Forensic science

In the last year, we have continued to expand both the volume and the scope of our science. In the forensic area, the government's emphasis on the application of science to reduce crime, combined with the drive to improve timeliness and value for money, provide an ideal environment for our plans to increase market share.

During the first full year of business in our scene of crime laboratory in Teddington, the service has gone from strength to strength, as we have won new work and processed over 1,600 samples for police forces. We have opened a larger space at Teddington to



Dr John Marriott, Government Chemist and Director, Analytical Technology, with Dr Paul Debenham, Director, Life Sciences in the genotyping laboratory

1. Recently graduated scene of crime reporting officers with Nick Claxton, Head, Forensic Division (centre), and Dr Renuka Sornarajah, Senior Reporting Officer (second from right)
2. Examining DNA profiles
3. Barrie Mellars, Head, Computer Forensic Unit



In the forensic area, the government's emphasis on the application of science to reduce crime, combined with the drive to improve timeliness and value for money, provide an ideal environment for our plans to increase market share.

accommodate the growing business and are in the process of expanding our service to a two-site operation with a new laboratory in Runcorn set to open later this year. Winning business in this area has been very successful and we anticipate that the new laboratory will replicate our Teddington laboratory, rapidly achieving maximum capacity. To facilitate delivery in this expanding area we have put five individuals successfully through our in-house reporting officer training programme.

There has been further growth in our workplace drug and alcohol testing laboratory, including a new contract to supply laboratory testing services to a major healthcare service provider. Following the increases in our toxicology business this year we will be expanding the service offered in Runcorn.

In line with changes in the policing of drugs, which now focuses on Class 'A' drugs such as heroin and crack cocaine, we have experienced a large increase in the number of drugs submissions received. This has included a record number of requests for immediate analysis as a result of the increase in 'test purchases'. To cope with the increases, this service is also now being delivered from both our Teddington and Runcorn laboratories.

During the year LGC expanded its forensic service offering, establishing a mobile phone and computer hardware forensic analysis team. This service integrates very well with our other fraud investigation services, which have also expanded.

Life sciences

In life sciences, the growing appreciation of the potential benefits of genotyping for traits such as disease susceptibility continues to present new opportunities for our large-scale DNA testing facilities. The high throughput genotyping laboratory is now handling three times the number of samples it initially delivered. This state-of-the-art laboratory provides genotyping services to the Department for Environment, Food and Rural Affairs under the National Scrapie Programme, which aims to eradicate the disease from the UK sheep flock over the next ten years. Investment in front-end robotic automation has streamlined the process and increased the capacity to 500,000 samples per year.

The Child Support Agency has also extended our contract to provide paternity genetic analysis services.

Chemical process industries

A growing part of our business, particularly at our Runcorn laboratory, is to provide outsourcing services, mainly to customers in the pharmaceutical, chemical and oil sectors. The technology and expertise utilised by these customers is also used to support regulatory and enforcement agencies such as the Medical and Healthcare products Regulatory Agency.

LGC provides support and outsourcing services to companies that have no in-house laboratory, in addition to supplying complex analysis or method development support to organisations with their own facilities. The latter range from laboratories that are

1. The scene of crime laboratory in Runcorn was established during 2002/2003

2. Dr Peter Lyne, Head of the Government Chemist Programme (centre) with partners from the Department of Trade and Industry and the Royal Society of Chemistry



limited in their range of analytical techniques through to major research and development groups with sophisticated instrumentation.

During 2002 there was a significant increase in the demand for a number of these services, including major increases in regulatory analyses to identify whether fuels and lubricants have been modified to avoid excise duties. There was further growth in outsource services to the chemical industry and also provision of supplementary and complementary analytical techniques to support the pharmaceutical sector. In order to enhance our capabilities we invested significantly in new analytical equipment to expand capacity and method development services. In response to the increase in regulatory pressure on pharmaceutical companies to ensure product integrity when using chemicals in packaging and drug design, we have developed new services such as identification and quantification of leachables and extractables that will impact on drug efficacy.

During the year, LGC established an exclusive contract with Ineos Fluor for compliance testing of the propellants used in asthma inhalers. We were pleased that our GMP test facilities in our Runcorn laboratories were successfully audited by the United States Food and Drug Administration. This supported a successful new drug application by a major pharmaceutical company, which allowed them to sell and market their product in the United States.



Dr Peter Farnell, Head of Food Chain Analysis, was appointed Technical Editor of Butterworth's Law of Food and Drugs and also writes on topics of current interest in Butterworth's Consumer Law Bulletin. Peter is also Chairman of the Association of Public Analysts Examination Board and has recently been appointed as APA Training Officer. These duties are aligned with Peter's involvement in LGC's analytical innovation, Government Chemist and training programmes and our work for government, enforcement authorities and industry.

1. Alan Handley, Technical Manager, (left) and Dr Gary Goodyear, European Quality Manager, Ineos Fluor, discussing the analysis of HFC 134a propellant produced by Ineos for use in Metered Dose Inhalers (MDIs)





LGC Promochem's wide range of reference materials can be delivered rapidly from our high specification storage facilities in the UK and Germany

Reference materials



The quality and accuracy of analytical measurement underpins the majority of LGC's activities. Reference standards are a vital link in the analytical quality chain. As the leading supplier of these materials in Europe, LGC Promochem has a key role to play across a wide range of markets within the analytical community. LGC Promochem distributes products on behalf of all major standards suppliers. Delivering a significant proportion of LGC's overall sales, with stable and strong profit margins, LGC Promochem also reinforces LGC's reputation as a leading national measurement laboratory in Europe.

LGC Promochem's product lines fall into three main sectors:

- Pharmaceuticals, forensic and clinical standards
- Cell lines and biomaterials
- General reference materials.

In each sector, LGC Promochem has established a market-leading position across Europe. Recognising our status as Europe's leading reference substances distributor for United States Pharmacopoeia, USP's Chief Operating Officer, Dr John Fowler, presented LGC Promochem with a special award as the best distributor of USP products. The award ceremony was attended by a number of key staff from LGC Promochem's European reference materials

distribution group along with Rich Wailes, Vice President of Sales and Marketing at USP.

Financial growth

2002 was a year of both growth and consolidation for the business. Our new brand, LGC Promochem, was launched across Europe in March 2002. Financially, LGC Promochem has excelled this year, achieving its targets both in sales and profit in every country in which we operate.

During the year, LGC Promochem signed a distributor agreement with ChromaDex to market a range of phytopharmaceutical reference standards. This range of products provides enormous potential for future growth, as herbal pharmaceutical manufacturers are required to improve their quality standards. LGC Promochem's relationship with Cerilliant, the leading provider of forensic reference standards, was further strengthened through ongoing promotion of their products, particularly within LGC's forensic laboratories. Using LGC Promochem's existing distribution network for European pharmaceutical companies, LGC will develop the unique collection of pharmaceutical impurities and metabolites which are produced by our recently acquired subsidiary, Mikromol.



LGC Promochem's business development team discusses the new website. From left: Claudia Ketteler, Suzannah Mackay, Jeffrey Anthony and Caroline Jones

1. Dr Ray Ah-Sun (right) with Ashwini Laksman in the Bangalore reception area
2. Dr Nigel Cabeldu, Commercial Manager for general reference materials (left) with a customer
3. The team in Warsaw with their ISO 9001/2000 certificate



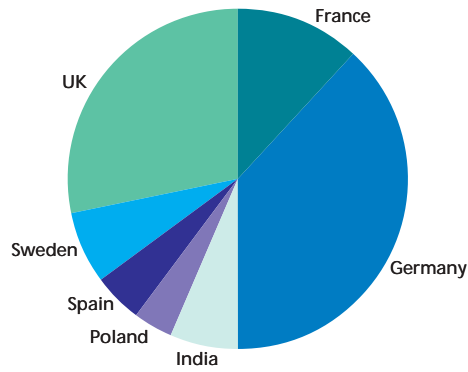
LGC Promochem's strong relationship with ATCC, the leading provider of biomaterials for drug discovery and R&D, was further enhanced when ATCC celebrated a 300% increase in sales in Europe since signing the sole distributorship agreement with LGC Promochem.

The general reference materials market, dominated by food and environmental reference standards, is holding strong. During the year, LGC Promochem focused its efforts on promoting the range of ULTRA environmental standards across Europe and agreed a new five-year contract with Cambridge Isotopes Laboratories for the distribution of their environmental products. Further support for the general reference materials business was provided by LGC's annual collaboration with the other premier certified reference material producers, the European Commission's Institute of Reference Materials and Measurement (IRMM) and Germany's Federal Institute for Materials Research and Testing (BAM) at the world-leading analytical exhibition, Pittcon.

LGC Promochem's financial growth has been underpinned by staff development programmes and training held in conjunction with our suppliers, ensuring that our staff have in-depth technical training on their products. Our ATCC sales staff received valuable technical information during their visits to ATCC and visits to Europe by our ATCC colleagues. Staff from USP attended the pharmaceutical group meeting held in Germany in October and USP returned the compliment in December when they invited ten LGC Promochem staff to attend an international distributor meeting at their headquarters in Rockville, Maryland, USA.

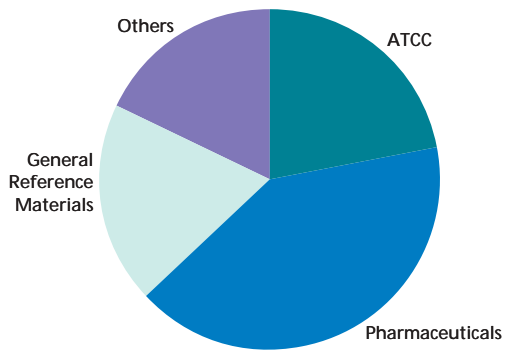
Sales by territory

Total £21 million



Sales by product group

Total £21 million



1. Stephen Hall, ATCC Sales Office Manager
2. The wide range of product catalogues available from LGC Promochem

“USP will complete 17 years of business partnership with LGC Promochem in May 2003. During those years LGC Promochem has increased dramatically its capability to market and sell USP reference standards and publications to companies in Europe, Asia, and Africa. This year LGC Promochem supplied customers in 55 countries with USP materials. We are pleased to recognise LGC Promochem as our top distributor in total sales for 2003.”

Rich Wailes, Vice President, Sales and Marketing, USP



LGC Promochem’s financial success has also enabled it to expand geographically. We recently opened a new office in Milan, Italy, to provide our Italian customers with an improved local service. To underpin LGC Promochem’s future sales growth, a new, interactive, fully searchable website (www.lgcpromochem.com) was launched in February, enabling customers to search for and order products and to communicate easily with their local office.

Quality standards are as important to the reference standards business as they are to LGC’s analytical services. During the year, our Polish office became the

LGC’s proficiency testing services have continued to grow with an ever-increasing number of participants from around the world. Proficiency testing provides an appropriate and effective way for laboratories to demonstrate the quality of their work and helps laboratories achieve excellence in their work and to reinforce ongoing quality assurance and competence. During the year LGC was one of the first organisations to be awarded an accreditation certificate from the United Kingdom Accreditation Service (UKAS) for proficiency testing.

first outside the UK to achieve ISO 9001/2000 certification. This is an important response to customer feedback and all of our other offices will work towards certification in the coming year.

“Enhanced availability of biological materials and superior customer service are central to ATCC’s vision to be the world’s leading biological resource centre. Our partnership with LGC Promochem ensures that European scientists have faster access to quality research materials and reference standards.”

Michael Gove, Vice President of Marketing and Sales at ATCC



1. LGC Promochem now distributes phytopharmaceutical reference standards produced by ChromaDex



2. LGC Promochem staff meet their new colleagues from Mikromol at Mikromol’s offices in Luckenwalde

