

### Strategic Plan 2011-15

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### Foreword



Chair of Court University of Abertay Dundee

I am delighted to be in the position, as Chair of the Governing Body of the University of Abertay Dundee, to introduce our Strategic Plan for the period 2011-15. The next few years will see higher education in Scotland face major challenges, especially those involving financial stability, but will also see us continuing as a vibrant and independent university developing across several crucial and exciting areas.

This Strategic Plan complements our medium-term financial plan (MTFP). The MTFP will enable us to manage prudently the expected fall in public funding for Scottish higher education, while the Strategic Plan makes clear our wish to retain our strong sense of purpose and ambition. Alongside these plans, staff across the University are also developing a 'Strategic Markers' initiative to identify major projects in which we will invest (as our financial performance permits) according to their potential for reputation enhancement, capacity building or business expansion.

The Abertay games-led agenda continues to be central to the University's evolution as an internationally-recognised focus for creative digital technologies. Our achievements in this, such as the world-renowned Dare to be Digital competition and our National Centre for Excellence in Computer Games Education, exemplify our commitment to high quality teaching and learning, effective industry engagement and knowledge translation. The Strategic Markers initiative will develop and extend this distinctive approach across the University, in the context of the Strategic Plan, and we expect to create new focal points in areas such as digital arts, environmental sciences, food and drink, complex systems, and multi-stage drug treatment research. Many of these will also have an international dimension, for our ambition seeks to extend our influence beyond Scotland and the UK, building on the strong links we have already established throughout Europe, and across Asia and beyond.

The Strategic Plan 2011-15 embodies our passion for all that we do, and is ambitious yet achievable within a resourceconstrained period. I am absolutely convinced that current and future students – and ultimately society at large – will benefit greatly from our commitment to enthusiasm, innovation, and determination. I also believe that with the continued goodwill and energy of our staff, the University will continue to grow and prosper in the future.

### Mission, Vision and Values



### Mission

Our mission is to provide a distinctive and high-quality university education that empowers our students intellectually, socially, culturally and economically, and to generate new knowledge and learning that reinforces national competitiveness.

### Vision

We will be a university rooted in our community, with global reach, contributing to the economic and social well-being of Scotland and the UK while developing areas of international excellence.

By 2015 we aim to have:

- Exploited the synergy between higher learning and research to nurture new knowledge and types of practice
- Become internationally recognised in research, knowledge exchange and teaching in creative digital environments
- Further developed local, regional, national and international collaborations which will enhance learning and teaching, research, and professional practice
- All areas of our provision underpinned by research, with internationally leading groups in focussed areas

And, as a consequence of these achievements:

Be recognised for developing graduates equipped with the attributes and attitudes to contribute significantly to future economies



### Values

We value:

- Passion for learning and the advancement of knowledge
- Scholarship, curiosity, creativity, innovation and interdisciplinarity
- Determination in shaping, sharing and achieving our clear purpose and goals
- Ambition, enthusiasm and industry in the pursuit of personal and institutional excellence
- Diversity by promoting equality of opportunity among all who can benefit from or contribute to the Abertay experience



### Key Strategic Objectives



### **Teaching and learning**

We will:

- 1. Develop innovative learning environments that reflect real-world challenges and approaches to work
- 2. Use active enquiry and project-based activity to ensure our students can purposefully access and evaluate information
- 3. Develop graduates who, through exhibiting the Abertay graduate attributes, can contribute to, and shape, future economies and society

### **Research and knowledge exchange**

We will:

- 1. Increase the pervasiveness of the research and practice culture across all provision, while maintaining our world leading role in aspects of environmental sciences, and develop internationally leading groups in policing, forensics and criminal justice and in inclusive technologies for sustainability, well-being and security
  - 2. Grow research activity, income, impact and reputation, based on subject-focussed and interdisciplinary research themes that align with our teaching activities and government priorities
  - 3. Further develop our approach to demand-driven knowledge exchange activity to make a significant contribution to the UK's economy, particularly in areas of high potential such as the creative industries

### Portfolio

We will:

- 1. Ensure that the University develops and maintains an attractive and innovative combination of courses, designed to deliver subject expertise and engage students' curiosity across and between disciplines in a broader thematic or application-led context
- 2. Expand our postgraduate provision and types of delivery
- 3. Incorporate elements of work-based learning, workplace simulation and mixed discipline teamworking in our portfolio development







### **Student experience**

We will:

- 1. Ensure that a transformational student experience underpins our planning
- 2. Increase the diversity of our student population and exploit this as a source of enrichment for everyone in our community
- 3. Empower students to shape their education and to meaningfully engage with the University and its decision making processes

### **Support services**

We will:

- 1. Recruit more international students, and encourage participation in international exchanges
- 2. Balance the budgets
- 3. Improve operational efficiency
- 4. Improve staff performance, productivity and potential
- 5. Seek every opportunity to ensure our sustainability





### The Abertay Story











Planning for an uncertain future requires a clear sense of mission, vision and values. This Strategic Plan refines the mission, vision and values of the previous Plan, taking into account the University's achievements and the continually evolving academic, economic and social landscapes within which it operates. It reaffirms our commitment to innovation, flexibility, interdisciplinarity and differentiation – the institutional attributes that already govern our approach to widening participation, collaboration with industry, serving the needs of the local community and the world at large, and building partnerships nationally and internationally.

These attributes, and our general approach, are evident in all the major initiatives and projects that have characterised our progress over recent years. The Urban Water Technology Centre (UWTC), which delivers research and consultancy in wastewater and environmental management to the water industry in the UK and overseas, pioneered a unique Abertay approach to innovation and interdisciplinarity more than 15 years ago. The same approach later informed the development of SIMBIOS, our innovative research centre developing new modelling and experimental approaches to investigate the microscopic complexity of soil ecosystems. The success of UWTC and SIMBIOS encouraged the setting up of the Abertay Centre for the Environment (ACE) in 2005 as a knowledge-exchange platform designed to enable SMEs to identify commercially-viable environmental solutions to their products and processes, saving costs and generating competitive advantage.

Encouraged by the success of these and similar initiatives in the research and knowledge exchange arena, Abertay applied similar thinking to teaching and learning and developed the unique White Space integrated learning environment. White Space now embodies interconnectedness, cross-fertilisation of ideas, an open-plan layout, and enquiry-, projectand studio-based learning and experimentation. It has become an incubator for research projects seeking to use creative digital and information technologies to explore the problems and issues encountered wherever technology interacts with society.

The next evolution of the Abertay institutional attributes took shape in the Human Interactive Virtual Environment (HIVE), which took Abertay's multidisciplinarity and cross-disciplinarity into fresh fields by applying computer modelling and visualisation tools and techniques to analyse and interpret complex and multidimensional datasets concerning health, disease, the environment, urban planning and policing, among others. Cross-disciplinarity is at the heart of this work: our PhD students in the HIVE, for example, are supervised by at least three different Schools within Abertay, combining a wide range of expertise.

Broadly contemporaneous with these initiatives, our BAFTA-endorsed Dare to be Digital games design competition for undergraduates rapidly secured international pre-eminence and recognition for our unique approach to project-based concepts of workplace simulation. As well as informing the White Space concept, these models now feature in many areas of programme design. The most prominent example of the latter is our Professional Masters











degree in Games Development, for which we received significant government funding and formal designation as the National Centre for Excellence in Computer Games Education.

The success of Dare to be Digital was also a major contributory factor to our winning UK and European grants to fund both a Prototyping and Business Support programme for the Scottish and UK games and digital entertainment industries and an inter-university project designed to create a sustainable ecosystem for the production and consumption of new media, bringing young audiences and content producers closer together, and putting Scotland at the forefront of the huge emerging creative media industries. Both these initiatives, as well as promoting knowledge exchange with important sectors of the emerging economy, offer our students unrivalled opportunities for project-based, real-world learning.

In a similar vein, our Food Innovation @ Abertay project established a reputation throughout Scotland for providing food and drink companies with expert practical support and advice for innovation, as well as access to other useful services and facilities. This feeds back into our growing portfolio of food, nutrition and health degrees, whose students in turn can contribute to, and learn from, working on real-life industry challenges – something that differentiates Abertay from many other universities. Partly as a result of our achievements in this field, we were last year designated as the home of Scotland's National Food and Drink Skills Academy – a network of employers, education providers and major government stake-holders dedicated to improving skills and growing a major national industry.

As well as these headline initiatives, we are also developing interdisciplinary research and teaching strengths in policing, oil and gas accounting, renewable energy, business and management, counselling, cyber-security and ethical hacking. We have developed new intellectual property in areas as diverse as environmental modelling, firearms training and cancer treatment pathway visualisation.

This is the basis on which Abertay prepares for the future. The Strategic Plan 2007-2011 set challenging objectives with clear and detailed targets, and created a framework for our teaching, research and external engagement. Since 2007, we have enhanced our ability to explore new opportunities while strengthening our existing areas of expertise. We have refined and developed the Abertay Graduate Attributes – one of the major innovations of the 2007-2011 Plan – making the linkages between teaching and research more explicit, and we have expanded our portfolio of programmes, nationally and internationally.

We have also, over the last four years, continued to develop Abertay as an exciting and nurturing environment which taps into our staff's deepest motivations of exploration and enquiry and aligns them with the institutional needs of the University. We have continued to encourage multi-faceted networks and connections, encouraged by an open-plan approach to learning and research space design, inside and outside the University, to support new and developing initiatives and provide further options for the long-term growth and stability of the institution.

In summary, we have become better able to use resources efficiently and innovatively, and to be enterprising while remaining focused on quality and the student experience. We are more expert and more efficient at cross-disciplinary thinking in portfolio development and in opening up new areas of research and of industry engagement. This Strategic Plan builds on what we do best: committing to sound educational principles and values, delivering quality teaching and research, and recognising opportunities and new horizons in teaching and research.

### Graduate Attributes







Abertay's Graduate Attributes reflect what we value most: the development of our students' intellectual and social capacity to make significant contributions to society, find creative solutions to real-world problems, and work in complex and interdisciplinary contexts. In treating knowledge as provisional, we promote in our students an attitude of curiosity, independence and commitment to applying what is known to new contexts, and to testing and challenging the boundaries of what is known. Abertay graduates will be:

### Confident Thinkers, who:

- Demonstrate independence and a comprehensive understanding of their primary field and its structure
- Identify the current boundaries of their subject field, have the knowledge to work within those identified margins, and are willing to breach them when necessary
- Differentiate occasions for creativity from those where bounded problem-solving and specialist expertise is necessary
- Evince an appreciation of the richness of knowledge, differentiating and using principles, exceptions, examples, elaborations, restatements, paradigms, models, and other categories

### **Determined Creators, who:**

- Initiate opportunities and processes for creativity and innovation
- Establish and refine frameworks for evaluating progress in their endeavours
- Value, recognise, seek and incorporate contributory expertise and the interdependence of ideas within and across disciplines
- Maintain commitment, direction and pace in changing circumstances and creative milieu

### Flexible Collaborators, who:

- Define and develop individual roles in teams of various formation and purpose
- Integrate and support the individual contributions and skills of others, and recognise issues of equality and diversity
- Interpret and respond to changing group dynamics
- Recognise and value perspectives, methods and contributions across disciplines

### Ambitious Enquirers, who:

- Actively seek opportunities to develop new knowledge
- Enquire, reflect, analyse, evaluate and synthesise data of various types
- Work effectively with ambiguity, uncertainty, and error
- Recognise the opportunities and impacts of change, interconnectedness, and complexity



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### **Student Experience**



At Abertay, we acknowledge that the 'student experience' will be subtly different for each individual according to personal circumstances – school-leaver, mature student, international, college-leaver, undergraduate or postgraduate: each one is on a personal academic, social and cultural path of development and discovery.

The vision of the University is to be recognised for developing graduates equipped with the attributes and attitudes to contribute significantly to future economies. We are committed to creating the optimal campus environment for each student, comprising excellence in teaching and learning, high quality learning facilities, a supportive and listening institutional culture, and the development of graduate-level employability and enhanced life skills.





The Strategic Plan 2011-15 takes forward the previous Plan's declaration that our graduates would "combine leading-edge specialist knowledge in areas that define and support social and economic progress with the understanding and skills to meet the challenge of driving change in the 21st century". The Abertay Graduate Attributes, refined and updated, continue to be the parameters by which our success in this regard will be measured.

Our students experience high quality teaching from enthusiastic lecturers, enriched by the research and scholarship that takes place across the Abertay academic community. We will continue to provide opportunities for all our students to learn by working alongside practitioners in settings that will simulate, as far as possible, the 'real-world' environments in which their future careers will flourish. We remain committed to deploying the correct balance of physical and electronic resources to support learning, in innovative and effective learning spaces on a modern, fit-for-purpose campus.

We will encourage students to contribute to making their course more exciting and relevant for themselves and future generations of students. At the same time, engagement with the wider life of the University and the local community enriches our students' personal development, and we encourage them to take part in co-curricular activities such as sport, student societies, volunteering, and other career development opportunities.

At Abertay, we understand that our students invest considerable financial, intellectual and emotional resources in their education. Our commitment to delivering an exceptional and transformational student experience is explicitly designed to reward that investment.

### Achieving **Academic Objectives**



### **Teaching and learning**

Our Key Strategic Objectives are that by 2015 we will have:

- Developed innovative learning environments that reflect real-world challenges and 1. approaches to work
- Used active enquiry and project-based activity to ensure our students can purposefully 2. access and evaluate information
- 3. Developed graduates who, through exhibiting the Abertay Graduate Attributes, can contribute to, and shape, future economies and society

### We will deliver on these Objectives through the following planned Outcomes:







	Outcome	Completion Date Academic Session	
1	All students of the University, at all stages of their studies, are exposed to the Abertay Graduate Attributes	2011/12	
2	All students of the University are exposed to a range of different teaching, learning and assessment modes	2011/12	
3	Enquiry-based learning forms the majority of student contact time	2012/13	
4	A defined proportion of student teaching and learning contact time is delivered by research active staff	2012/13	
5	Every undergraduate student, in every semester of their programme, engages in 'large' coursework assignments	2013/14	
6	Every student receives feedback on assessed work assignments within a specified time frame	Ongoing	

### **Research and knowledge exchange**

*Our Key Strategic Objectives are that by 2015 we will have:* 

- Increased the pervasiveness of the research and practice culture across all of our provision, 1. while maintaining our world-leading role in aspects of environmental sciences, and will have developed internationally leading groups in policing, forensic and criminal justice, and in inclusive technologies for sustainability, well-being and security
- Grown research activity, income, impact and reputation, based on subject-focussed and 2. interdisciplinary research themes that align to our teaching activities and government priorities
- Further developed our knowledge exchange activity to make a significant contribution to the UK's economy, particularly in areas of high potential such as the creative industries









We will deliver on these Objectives through the following planned Outcomes:

	Outcome	Completion Date Academic Session
1	The University achieves an improved REF rating in comparison to the RAE	2013/14
2	The University develops distinctive expertise in applying multidisciplinary, visualisation and modelling techniques	2012/13
3	Academic staff engage in increased levels of authoritative research and knowledge exchange activities	Annual increase
4	The University increases the proportion of aca- demic staff who have PhDs	Annual increase
5	The University increases the number of funded studentships	Annual increase
б	The University increases the number of academic staff engaged in peer-reviewed activity and professional scholarly output	Annual increase

### Portfolio development

*Our Key Strategic Objectives are that by 2015 we will have:* 

- 1. Ensured that the University develops and maintains an attractive and innovative combination of courses, designed to deliver subject expertise and engaged students' curiosity across and between disciplines in a broader thematic or application-led context
- 2. Expanded our postgraduate provision and types of delivery
- 3. Incorporated elements of work-based learning, workplace simulation and mixed discipline team-working in our portfolio development

### We will deliver on these Objectives through the following planned Outcomes:

	Outcome	Completion Date Academic Session
1	An innovative and differentiated portfolio of programmes aligned to Scotland's strategic priorities for economic growth	2012/13
2	Programmes are designed for delivery in immersive, interactive and technology-rich environments	2012/13
3	Programmes are aligned with student demand, and trends in demand for new high level skills and fast growing occupations	2014/15

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	Outcome	Completion Date Academic Session
4	Programmes are developed utilising an internal planning method – Strategic Enrolment Manage- ment	2012/13
5	Progression routes are developed from Bachelors to Masters and doctoral programmes	2011/12
6	The range of programmes of professional practice is increased	2012/13
7	The number of successful partnership and articulation schemes is increased	Annual increase
8	Programmes enable students to achieve mastery in their chosen subject and engage their curiosity across disciplines	2012/13
9	Creative programmes which simulate workplace enterprise culture and embed entrepreneurial skills will be developed	2013/14

### Student experience

*Our Strategic Objectives are that by 2015 we will have:* 

- 1. Ensured that a transformational student experience underpins our planning
- 2. Increased the diversity of our student population and exploited this as a source of enrichment for everyone in our community
- 3. Empowered students to shape their education and to meaningfully engage with the University and its decision making processes

### We will deliver on these Objectives through the following planned Outcomes:

	Outcome	Completion Date Academic Session
1	Student engagement with the University is raised	2011/12
2	Student identification with the Abertay Graduate Attributes is strengthened .	2012/13
3	Student use of student-to-student peer support is increased	2012/13
4	Student diversity is increased	2013/14
5	Staff demonstrate a positive view about the student experience	Ongoing



### Risks and Challenges









During the period of this Plan, the Scottish higher education sector will experience a significant shortfall in funding due to reduced public expenditure coupled with the introduction of higher student tuition fees in England. Without appropriate corrective action, this funding gap will lead to our financial performance declining in each of the years of the Plan.

In the past, most UK universities have been able to subsidise their teaching costs with fee income from students recruited outside the EU. However, factors beyond our control are now threatening those revenue streams. For example, changes in UK Government visa and immigration policies and practices are already hampering our ability to expand student recruitment in certain areas. Our targets for growing overseas student numbers reflect our assessment of by how much we can grow on-campus activities, taking into account current visa approvals arrangements, and our ability to expand the portfolio of programmes. Off-campus activities could be expanded without visa constraints, but only by significant investment in relationship building, management, and improving our league table positions. We are prepared to make such investments where they support the objectives of this Plan, but only in the context of our overall economic sustainability.

The University fully recognises the nature and extent of these challenges. We believe that our positive approach to risk management will enable us to make informed decisions that will secure economic sustainability, create and identify new opportunities, and provide the confidence to maintain and develop our academic provision and standing in accordance with our key strategic objectives.

The University's risk management is based on a systematic and comprehensive framework for handling all aspects of 11 strategic risks we have identified, ranging from financial shortages to major incidents that could disrupt our day-to-day operations. This framework will ensure that our responses to opportunities and issues are rational, integrated and effective, minimising exposure to threats and exploiting opportunities that will help to offset the funding shortfall.

The framework has matured over the period covered by the 2007-11 Strategic Plan, and will be reviewed in light of the new Plan. Although we don't expect our current strategic risks to change markedly, we do expect the probability and impact of several of these identified risks to increase. The University is, however, confident that its current approach to risk management is fit for purpose, and will support effectively the delivery of the key strategic objectives contained in this Plan.

## Contributing to National Objectives









### **Scottish Funding Council Outcome**

### **Outcome 1 – Employability & Skills**

Seek a system of further and higher education in which, through the provision of high quality education 3. Portfolio and learning, students have enhanced their general and specific skills, their confidence, self-reliance, motivation, knowledge and capacities:

- Meet needs and expectations of employers in Scotland, the rest of the UK and internationally and which address the current economic demands
- Lead to improved utilisation of skills in the workplace
- Contribute to improved personal, social, civic and cultural outcomes for the people of Scotland

### Outcome 2 – Access, Inclusion & Progression

Seek, within the wider learning environment in Scotland, a continuum of learning provision into, 3. Portfolio within and between colleges and universities:

1. Teaching and learning

**Pillar of Abertay Strategic Plan** 

1. Teaching and learning

Experience

4. Student

- 4. Student
- experience
- Multiple entry points providing access to and progression through learning opportunities in 5. Support services ways, times and places that meet individuals' needs, including the particular needs of people seeking work in the economic downturn
- Allows individuals over time to develop their skills and capacities for learning without need for unnecessary repeated study
- Underpinned by a system of financial support for students that targets support where it is most needed, so that, as far as practicable, opportunities to learn are determined solely by a person's capacities and ambition
- Continues to address uneven patterns of participation in education and promotes equality and diversitv









### Outcome 3 – Knowledge Exchange

Aim to achieve:

- Effective, demand-driven exchange of knowledge and expertise with business and public and third sector organisations, which enhances competitiveness and promotes economic growth
- Formation of new knowledge-based businesses
- Easy access for SMEs to the facilities and services of colleges and universities
- Continued investment in Scotland to exploit knowledge, develop solutions, and demonstrate applications

### **Outcome 4 – Specialism & Diversity**

Seek a structure of autonomous institutions that, through specialism and diversity of mission, provide students, 2. Research and researchers, research investors, business and other stakeholders with a broad and comprehensive range of opportunities for learning, research and knowledge exchange

### **Outcome 5 – Collaboration**

Support academic or institutional collaboration in different forms where the end is to secure 2. Research and accessible, coherent, efficient, and effective provision, internationally competitive research, and efficient and effective operation of colleges and universities

### Outcome 6 – World Class Research

Support a research base that:

- Remains highly competitive internationally,
- Nurtures, attracts and supports world-class and internationally excellent researchers in Scotland
- Attracts high levels of project support from research councils, charities, business and the public sector

### **Outcome 7 – Effective Colleges & Universities**

Support the development of college and university sectors with well led and run, financially sound 5 Support services colleges and universities which meet all the legal and other requirements placed upon them, including those relating to employment, diversity, equality and sustainability

- 2. Research and knowledge exchange
- 4. Student experience

- 1. Teaching and learning
- knowledge exchange
- 3. Portfolio
- 4. Student experience
- 1. Teaching and learning
- knowledge exchange
- 3. Portfolio
- 5. Support services
- 2. Research and knowledge exchange
- 4. Student

### experience

### **University** Profile

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### Academic structure School of Contemporary Sciences **Dundee Business School** . School of Social & Health Sciences Institute of Arts, Media & Computer Games School of Computing & Engineering Systems Permanent staff Students by fee status Research Academic EU Students 4% 30% 15% UK Students Overseas Senior 80% Students Management 5% 2% Support 64% **Students by School** Institute of Arts, Graduate destination School of Media & Computing & Computer Games In work Engineering 17% School of Systems 61% Contemporary





European Alumni

10%

Overseas Alumni

23%





### Alumni UK Alumn

67%

### Partnerships and overseas links

Abertay is a leader in widening participation in higher education. As well as hosting the Tayside and Fife Articulation Hub, Abertay also has articulation arrangements with 14 colleges around Scotland.

Overseas, Abertay has an extensive network of linkages including more than 70 universities and higher education institutions across Europe, as well universities in China, India and Malaysia.

Research and Knowledge Exchange networks in which Abertay participates:

- The Scottish Informatics and Computer Science Alliance (SICSA) .
- The Scottish Alliance for Geoscience, Environment and Society (SAGES) .
- The Scottish Institute for Policing Research (SIPR) .
- The Scottish Universities Life Sciences Alliance
- The Scotland Food and Drink Skills Academy



























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