BBSRC SCORECARD: DELIVERABLES AND TARGETS, 2008-09

Delivery Plan section	Deliverable	2008-11 Target	Milestones	Progress over 2008-09
Healthy research base: cross-Research Council	Vibrant, internationally competitive multidisciplinary UK research base, capable of delivering a step-change in its economic impact, in: • energy • environmental change • ageing • global security • nanotechnology	<u>Energy</u> • Commit £38m to bring together UK research community and expand capacity in bioenergy, including £20m for bioenergy research initiative • Develop new research centre and flagship bioenergy programme • Significantly increase national capacity and research volume in bioenergy • Provide £18m to explore longer-term alternatives to petrochemicals	• Establish Bioenergy Centre (Apr 09) • Award £20m for Bioenergy Centre and programme grants (Sep 08) • Initiate all first tranche programme grants (Apr 09) • Complete gap analysis, including impacts, of bioenergy research to inform further investments (Mar 09) • Fund relevant research through responsive mode, monitored by Committee chairs (on-going) • Make second Bioenergy call for 2009 start (Dec 08)	
		<u>Environmental change</u> • Commit £22m to this area, including £8m of additional funding • Develop predictive models of how farming systems respond to environmental change • Target funding on basic research to mitigate and adapt to environmental change	• Engage with LwEC partners Board to define areas of activity within BBSRC remit and lead on definition of programme on LwEC Objective D (Sep 08) • Make first call for proposals in sustainable agriculture for adaptation to environmental change (Mar 09) • Conduct independent review to identify and refine priorities (Jul 08) • Fund relevant research through responsive mode monitored by Committee chairs (Apr 09)	

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Healthy research base: cross-Research Council (ctd)	Vibrant, internationally competitive multidisciplinary UK research base, capable of delivering a step-change in its economic impact (ctd)	<u>Ageing</u> • Working through RCUK, commit additional £8m to ageing research including new centres for Lifelong Health and Wellbeing (with MRC and other RCs) • Generate new knowledge of factors that will inform strategies for improving 'healthspan' • Deliver focused and coordinated national research programme into ageing	• Develop c£3.5m initiative with US Natl Inst on Aging (Jul 08) • Develop Phase 2 of the LLHWB initiative (Mar 09) • Promote bioscience involve-ment in the final call of the cross-Council New Dynamics of Ageing initiative (Jun 08) • Promote responsive mode priorities in BBSRC programme of ageing research (on-going) • Promote strategically relevant science through BBSRC responsive mode (on-going) • Determine annual uplift in responsive mode commitment (Apr 09) • Work with other RCs and charities through UK Age Research Forum (Mar 09)	
		<u>Global security</u> • Commit £7m on research directly relevant to security (emphasis on animal and plant diseases) • Maintain national capacity in plant disease research • Maintain national capacity to develop novel diagnostics for animal diseases • Boost global security by helping to alleviate poverty and assure food supply	• Establish with DfID a joint call in animal health for international development (May 08) • Engage other funders in joint call on animal health (Sep 08) • Ensure institute strategic programme grants include plant disease research (Oct 08) • Promote UK co-ordination through the Animal Disease Research Funders' Forum (on-going) • Work with DfID and others to undertake agricultural research relevant to international development (on-going)	

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Healthy research base: cross-Research Council (ctd)	Vibrant, internationally competitive multidisciplinary UK research base, capable of delivering a step-change in its economic impact (ctd)	<u>Nanotechnology</u> • Invest £5m annually in bio-nanotechnology, including £1m pa to strengthen portfolio, boost science networks and develop industrial partnerships • Further develop crucial linkages between basic research and relevant bioindustries	• Engage in cross-Council nanotechnology programme and fund relevant research through responsive mode (on-going), monitored by Committee chairs (Apr 09) • Work through Bioscience for Industry Panel, responsive mode grant funding and studentships (on-going)	
	Impact through effective public engagement with UK research base	• Delivery of RCUK Science in Society strategy, including enhanced access to science for young people	• Implement changes in light of review of schools-science links (Mar 09)	
		• Increased impact of public dialogue activities (working with other Councils as appropriate)	• 2008-09: contribute to public dialogue on energy research (in part with RCUK) (Mar 09) • Develop public engagement activities to celebrate Darwin bicentenary (Mar 09)	
		• Effective system to gather early intelligence on social issues around bioscience research	• 2008-09: work with Bioscience for Society Panel to identify societal issues related to synthetic biology (Sep 08)	
		• Public better informed about research and empowered to contribute to decisions about its direction	• Work with EPSRC, Royal Society and others to foster constructive public debate on synthetic biology (Mar 09)	
		• Good practice in public engagement shared across BBSRC institutes and promoted within HEIs	• Develop joint strategy with BBSRC institutes following governance changes (Mar 09) • Deliver best practice in HEIs via RCUK and Beacons (on-going)	

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Healthy research base: BBSRC	Vibrant, internationally competitive UK bioscience research base capable of delivering a step-change in its economic impact	<u>General support</u> • Support for investigator-led research to total £237m pa • Increase responsive mode funding by 3% pa over spending review period • Improved capability in identifying and assessing economic impact of basic research	• Maintain substantial responsive mode grants whilst increasing commitments to Longer Larger Grants (LOLAs) (on-going) o Expenditure, 2008-09: £173m o Expenditure, 2009-10: £178m o Expenditure, 2010-11: £183m • With RCUK, review methodologies for economic impact assessment to identify best approaches (Mar 08) • Develop existing programme evaluation strategy to encompass economic impacts of research (June 08)	
		<u>Systems biology</u> • Total funding of c£115m over spending review period • Embed systems approach in responsive mode, initiatives and institute funding	• Maintain existing funding to long-term Systems Biology projects, including Centres. Spend additional £5m pa on Tools and Resources • Revise BBSRC Committee structure better to review and fund systems approaches to biology and other multi-disciplinary research (May 09) • Fund summer schools in Systems Biology (Oct 08)	
		<u>Tools and Resources (T&R)</u> • Overcome bottlenecks in bioimaging, computational analysis, biobased tools and bioanalytical techniques for academic and industrial use • Provide regular funding to develop and support databases and biological resources	• Increase T&R funding stream to £12.3m per annum over SR period (including increases to Bioinformatics and Biological Resources funding stream; first tranche by Mar 09) • Make calls for tools to address unmet needs (Jun 08)	

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Healthy research base: BBSRC (ctd)	Vibrant, internationally competitive UK bioscience research base capable of delivering a step-change in its economic impact (ctd)	Tools and Resources (T&R) (ctd) • Provide regular funding to develop and support databases and biological resources (ctd) • Establish data-sharing culture in BBSRC's research communities	• Assess proposal for major Genome Analysis Centre and progress as appropriate (Mar 09) • Data-sharing policy included in grant assessment (on-going) • Policy reviewed by T&R Strategy Panel (Mar 09)	
		Other strategic areas • Further develop synthetic biology, building on biomimetic and biomodification approaches • Maintain excellent BBSRC/ MRC interface to ensure translation of underpinning biological research into medical benefit • Further expand UK capability in stem cells research, ensuring further development of the skills base in this area • Maintain cross-Funder co-ordination of UK neuroscience research • Further support research and training in reduction, refinement and replacement of animals in research, including investing additional £1.7m in NC3Rs	• Review progress of Synthetic Biology Networks (Jul 09) • Ensure co-ordination of BBSRC/MRC activities through Steering groups e.g. XCAR etc (on-going) • Provide support to programmes led by MRC, e.g. LLHWB (on-going) • Maintain stem cells research as priority area for funding (on-going) • Studentships & Fellowships Panel to review staffing levels in area (Apr 09) • Promote activities arising from Foresight Cognitive Systems programme (on-going) • Increase investment in NC3Rs by £1.7m over SR period • Promote a harmonised approach across funders to the use of animals in research (on-going)	

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Healthy research base: BBSRC (ctd)	Vibrant, internationally competitive UK bioscience research base capable of delivering a step-change in its economic impact (ctd)	• Further support research and training in reduction, refinement and replacement of animals in research, including investing additional £1.7m in NC3Rs (ctd)	• Review implementation of cross-funder agreement (Mar 09) • Develop joint activities with NC3Rs to promote the 3Rs (on-going) • Co-ordinate and disseminate the activities of the groups supported under the £8m BBSRC animal welfare programme (on-going)	
Sustainability	National capability and appropriate facilities and infrastructure for UK research base in biosciences and related areas	• All grants to universities based on 80% FEC, with increase in funding of c£80m over spending review period	• Increase FEC expenditure by £30m in 2008-09 for funding of grants and fellowships • Maintain trajectory for proportion of total grants funded under FEC basis to rise to at least 95% by 2011	
		• Revised governance arrange-ments to be embedded at BBSRC-sponsored institutes	• Revised models in place or agreed (Apr 09) • Work with Defra and DIUS to agree future governance of IAH following Anderson and Beringer reports (Apr 09) • Implement revised interim governance for IAH (Oct 08)	
		• Single core grants to institutes to be replaced by five-year institute strategic programme grants and institute integration awards	• Award first grants from April 2008 • Receive and review second tranche of grants (Dec 08)	
		• Provide additional £17.5m resource and capital funding to BBSRC institutes over spending review period	• Allocate initial tranche of £2.5m in 2008-09	

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Sustainability (ctd)	National capability and appropriate facilities and infrastructure for UK research base in biosciences and related areas (ctd)	• Complete world-class facilities at IAH Pirbright by 2012	• Total BBSRC spend: £31m o 2008-09: £15m	
		• Develop plans for the future of IAH Compton	• Develop options for facilities currently provided at IAH Compton (Jul 08)	
		• Complete investment of £57m in new Roslin research centre at University of Edinburgh	• Investment in 2008-09: £11.1m • Develop business case for implementation (Mar 09)	
		• Invest £14m capital (with Welsh Assembly, EU and HEFCW) in new laboratories at IBERS	• Commence implementation of IBERS Estates Strategy o 2008-09: £0.5m	
		• Constitute North Wyke as a national facility for sustainable agriculture and land use research	• Establish North Wyke as a separate charitable entity (Apr 08) • Transfer to RRes (Apr 09)	
		• Develop strategic partnership between IFR and University of East Anglia, form major new centre for diet, food and health research	• Embed IFR as a BBSRC institute within University of East Anglia (Apr 09)	
		• Complete improved facilities at BI	• Improved facilities in Biological Support Unit (Mar 09)	
Economic impact through collaboration	A step-change in the economic impact of UK bioscience and related research	• Commit c£50m to industrially relevant research over the spending review period, at least £34m of this in partnership with TSB • Of above invest £16m via three Research Technology Clubs (RTCs) in complementary activity with TSB • Develop new RTCs through discussions with the bioindustries and TSB	• Commit at least c£12m to industrially relevant research, at least £8m to be complementary or collaborative with TSB (Mar 09) • Of above, award at least £7m in new grants through RTCs in Bioprocessing (BRIC) and Diet & Health (DRINC) (Dec 08) • Engage with companies and TSB to discuss potential new clubs including: Biorefining, Ageing, Crop Improvement, Bio-instrumentation (Mar 09)	

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Economic impact through collaboration (ctd)	A step-change in the economic impact of UK bioscience and related research (ctd)	• With EPSRC and TSB test concept of Innovation and Knowledge Centres in the biosciences • Work with TSB in sectors new to the Board, including agri-food	• Provided high quality proposals received, award with TSB and EPSRC one new IKC in the biosciences (Dec 08) • Published TSB Strategy Documents to include agri-food sector (Jun 08) • Work with TSB to develop mechanisms to take forward as appropriate eg Innovation Platform (Mar 09) • Develop, with TSB, mechanisms to evaluate benefits of collaboration (Mar 09)	
Economic impact through entrepreneur-ship and commercial-isation	A step-change in the economic impact of UK bioscience and related research	• Increase number of participants in Biotechnology YES to over 350 pa • Double proof of concept studies via Follow-on Fund to £2.9m pa • Maintain close involvement in RCUK Business Plan Competition	• Increase number of participants in Biotechnology YES 2008 to 300 (Dec 08) • Award grants totalling at least £1.9m through Follow-on Fund (Mar 09) • Continue to Chair current Business Plan Competition Board, ensuring Biosciences well represented (Dec 08)	
		• Increase number of Enterprise fellows supported by 50% awarding 15 new Enterprise Fellowships over the CSR period	• Award at least 4 new fellowships (Mar 09)	

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Economic impact through entrepreneur-ship and commercial-isation (ctd)	A step-change in the economic impact of UK bioscience and related research (ctd)	• Effect culture change in universities around concept of excellence with impact, demonstrated by: o Increased and more widespread demand for funding through KT schemes o External evaluation of attitudes to be commissioned in 2010 to assess changes from 2007 study	• Develop plans for new incentives for researchers (Mar 09) • Launch competition at departmental level to embed EI culture in universities (Mar 09) • Pilot Strategic Partnerships with leading universities (Mar 09) • Hold high profile event focusing on Economic Impact (Jun 08) • Consider within RCUK how to develop further an EI baseline (Mar 09)	
		• Enhance EI performance of Institutes and demonstrate outcomes: 10% increase over baseline (figures in Delivery Plan) for joint initiatives with industry, spin-out companies, licensing income and companies incubated on BBSRC Institute sites	• Introduce improved incentives for commercialisation (Mar 09) • Economic impacts of Institutes to be quantified as far as possible and placed in public domain (Jun 08)	
Economic impact through people and knowledge flows	A step-change in the economic impact of UK bioscience and related research	• Increase number of Industry Interchange Awards (IIAs) by 50%, awarding 22 new IIAs over CSR period • Explore development of mini-Knowledge Transfer Partnerships alongside KTPs	• Award 7 new Industry Interchange Awards (Mar 09) • Agree scope of new develop-ments to KTPs with TSB and promote to BBSRC community as appropriate (Dec 08)	
Economic impact through skills and training	A step-change in the economic impact of UK bioscience and related research	• All studentships to be funded as flexible 4-year doctoral training grants to cover research excellence and transferable skills	• All new studentships to be flexible training grants (Oct 08) • Current directly funded students to finish by 2010-11	

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Economic impact through skills and training (ctd)	A step-change in the economic impact of UK bioscience and related research (ctd)	• Ensure BBSRC continues to attract highest calibre candidates to pursue research careers • Increase investment in studentships to £51.3m pa by 2010-11	• Award 100 Undergraduate Vacation Research Bursaries (Summer 08) • Increase PhD minimum stipend to £12,940 (Oct 08) • Award 450 4-year studentships via DTG quotas (Oct 08) • Total for 2008-09: c£45m • Total for 2009-10: c£48m	
		• Double number of targeted priority studentships to 100 pa including up to 50 in association with BBSRC industry research clubs	• Total for 2008-09: 50 • Total for 2009-10: 50 • Total for 2010-11: 100	
		• Award at least 75 CASE studentships pa to major industrial partners • Award up to 45 4-year studentships annually to companies, primarily SMEs • Increase number of PhD students supported to 2,400 pa • Working with RCUK, embed new Code of Practice for employment of researchers • Working with RCUK continue delivery of professional and transferable skills training and career development for PhD students and postdoctoral researchers • Demonstrate impact of provision of skilled bioscientists through an external economic analysis	• Work with RDAs to encourage SME involvement (on-going) • Total for 2008-09: 2,070 • Integrate requirements of new Code into grants procedures (Mar 09) • Allocation of £2.8m for university generic training for PhDs and postdocs (Oct 08) • Launch joint funding of new Researcher Development Programme (Sep 08)	

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Economic impact through skills and training (ctd)	A step-change in the economic impact of UK bioscience and related research (ctd)	• Increase fellowships budget to £10m in 2010-11, supporting portfolio of early career, career development and senior fellowships • Award targeted Professorial fellowships to bring world-class senior scientists to work in Diamond Light Synchrotron • Promote industry/academe exchange through Royal Society Industry Fellowships	• Fellowships investment 2008-09: £6.5m • Competition call scheduled (Sep 08) • On-going promotion of Industry Fellowship competition to BBSRC community (Mar 09)	
		• Provide further support for Modular Training for Industry • Promote training and skills in *in vivo* sciences	• Deliver 2 rounds of funding to support Modular Training for Industry (Mar 09) • Co-ordinate and disseminate activities within the Integrative mammalian biology initiative (on-going)	
Impact on public policy	Public policy decisions based on sound scientific evidence	• To make significant contributions to major policy areas through: • cross-Council programmes (bioenergy, LwEC, Ageing) • development of systems/ predictive biology • securing national facilities and capability • boosting bioscience skills and training	• Develop Phase 2 of the LLHWB initiative, promote bioscience in New Dynamics of Ageing initiative (Mar 09) • Work with sponsored research groups to develop outputs relevant to public policy (on-going) • See sustainability section • See EI sections	

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International	Maintaining UK as world-leaders in biosciences, and securing research, industrial R&D and economic benefits from global scientific activity	<u>Movement of people</u> • Streamlined access of UK researchers to international schemes, with greater harmony across RCUK • Overseas visits to access new skills and facilities for UK researchers funded • Exchanges supported through HFSP and EMBO • UK researchers aware of international opportunities • GSIF and RCUK international strategies implemented • Highest calibre fellows and students attracted	• BBSRC input to RCUK International Strategy implementation plan (Jun 08) • Continuation of International Scientific Interchange Scheme (ISIS) (Mar 09) • Provide UK subscription with MRC and ensure programmes are of benefit to the UK community (Mar 09) • Awareness raising through UKRO, RCUK Offices and by IRU to the BBSRC community (Mar 09) • BBSRC input to RCUK International Strategy implementation plan (Jun 08), and input to GSIF activities (Mar 09) • Publish call for proposals for workshops and international partnering awards (Sep 08)	
		<u>International collaboration</u> • Effective collaborative activities (workshops, partnerships) funded • UK researchers cofunded with EU and other partners	• Explore opportunities with ERA-Net partners, and strategic bilateral relations especially with EU Member States, USA, Canada, Japan, China, India, Brazil and GSIF Strategy priorities (Mar 09) • Work with other Councils to ensure programmes delivered according to agreed strategic plans (Mar 2009)	

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International (ctd)	Maintaining UK as world-leaders in biosciences, and securing research, industrial R&D and economic benefits from global scientific activity (ctd)	• Joint research supported through HFSP, ERA-NET, ESF and bilaterally • Enhanced recognition and impact of research Councils overseas	• Work with other Councils to ensure programmes delivered according to agreed strategic plans (Mar 09) • As managing sponsor of UK Research Office, Brussels ensure UKRO continues to meet needs of subscribers and sponsors (Mar 09) • Fulfil role as sponsor of RCUK Offices in China, USA and India (Mar 09)	
		<u>Global responsibility</u> • Establish closer coordination with DfID, Research Councils and others through UK Collaborative for Developmental Science • Establish cofunding with DfID in key areas, eg animal health research	• Continue to sponsor UKCDS delivering HR to staff (Mar 09) • Maintain close links with EU funders via Standing Comm-ittee on Agricultural Research Animal Health & Welfare Working Group: explore potential ERA-Net (Mar 09) • Develop call for proposals with DfID in animal health research (Dec 08)	
Efficiency and effectiveness	Effective and efficient BBSRC support for UK bioscience research base	<u>Efficiency savings</u> • Contribute £80.7m to efficiency savings, including: o Reprioritisation of programmes: £34.5m o Reduction of administration costs: £2.2m o Improved assets use: £20m o Increased co-funding: £24m	• Total savings in 2008-09: • 2008-09: £6.3m • 2008-09: £0.5m • 2008-09: £14.5m • 2008-09: £7.0m	
		• Investment in Shared Services Centre of £6.2m + £1-2m on internal BBSRC implementation	• Investment in 2008-09: £5.5m	

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Efficiency and effectiveness (ctd)	Effective and efficient BBSRC support for UK bioscience research base (ctd)	• Deliver £10.8m savings in procurement through SSC	• Savings to be accrued by 2009-10	
		• Through RCUK realise efficiency savings in peer review	• Contribute to RCUK development of outputs/outcomes collection system (Mar 09)	
		• Implement new governance at BBSRC-sponsored institutes	• See sustainability section	
		• Further efficiency savings through sharing support services with universities	• Consider further efficiency savings from The Operations Centre (Mar 09)	
		• Reduced costs and carbon emissions from energy efficiency programme	• Continue energy efficiency programme in light of high energy costs and carbon reduction aims (on-going)	
		• Further implementation of 10-year estates strategy • Funding for estates strategy released through disposal of surplus facilities	• Continue backlog maintenance programme • See also sustainability section • Dispose of Houghton Grange to deliver proceeds for capital programme (Mar 09)	
		• Further refined Performance Management System, including: o Output metrics agreed across-Councils for DIUS EIRF o System for monitoring progress against Delivery Plan, particularly on economic impact	• Provide output metrics to DIUS (Jun 08) • Publish output metrics (Oct 08) • Take forward through RCUK PEG 2008-09 workplan • See also EI section	
		• Implement on-going programme of research evaluations (responsive mode, initiatives, schemes) to ensure quality of research outputs and outcomes	<u>2008-09:</u> • Finish EBS and PMS evaluations (Jun, Dec 08) • Finish IGF and GAN evaluation (Dec 08) • Finish JPA evaluation (Oct 08)	

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Efficiency and effectiveness (ctd)	Effective and efficient BBSRC support for UK bioscience research base (ctd)	• Improved methods for assessing economic impact of research funded through grants	• All evaluations to include specific assessments of EI of these research areas (Mar 09) • Evaluations of BBSRC schemes, including Enterprise Fellowships, Young Entrepreneur Scheme and Modular Training for Industry, to address EI aspects (Mar 09)	
		• Development of science strategy and policy to be informed by evidence from evaluations	• Provide outcomes from each evaluation to decision making bodies (on-going) • Take forward generic conclusions from responsive mode evaluations (Mar 09)	