



Strategy 2009–2012



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1. Director's introduction

Providing resources for staff and students in higher and further education in the UK and beyond

This is EDINA's strategy for future activities. It should also serve to guide us in present activities, motivate our business planning and assist quality improvement. It provides justification to HEFCE and the University of Edinburgh for the status of EDINA as national academic data centre and HEFCE-related Body. It also provides the JISC, the Joint Information Systems Committee for the UK funding bodies for education and research, and the wider UK academic community, with basis for their investment of strategy and funding, and for our related annual operational plans, monitoring and reporting. The purpose of this strategy is, therefore, to prompt us to do the right things, and to help us "do things right".

The stated mission for EDINA, seeking to enhance the productivity of research, learning and teaching, helps us retain our focus. This mission has remained the same, with modification, for almost the entirety of the years of our existence since 1995/96 as a JISC-designated national data centre, prompting us to assess, and re-assess where we can add value.

Our vision of the future, given that we realise our mission, is that:

"Our community is confident that EDINA adds value on the 'Net, assisting researchers, students and their support staff succeed at what they do."

The benefits are almost entirely external: principally enjoyed by the staff and students at UK institutions that make use of the services provided. We must aim for continuous improvement in the quality of what we do, and reflect on how best to assist institutions in their mission, working with others also to benefit understanding.

A national data centre must operate on the international stage, and EDINA is working increasingly with organisations carrying out like activities, recognising that both research and education and use of the Internet are global, requiring international agreement on standards and offering value from collaboration. Our strategy for engagement offers ready means for EDINA to work with JISC in such partnerships as Knowledge Exchange and the e-Framework for Education and Research, and EDINA's work with its international collaborators provides ways in which JISC's own strategy is expressed.

JISC and the UK academic community benefit considerably from the decision to host EDINA within the University of Edinburgh, able to gain leverage from a critical mass of expertise and resource; in turn, the University sees this as a strategic opportunity to contribute and help shape national and international developments.

EDINA has established a successful track record in its role as a JISC-designated national data centre for UK higher and further education. We have attracted and sustained remarkable growth in activity and funding in the recent decade, with more than four-fold growth since the earlier years of designation in the mid-1990s. Our challenge at EDINA, as at JISC, is to continually re-assess how to deliver value from common services 'at the network level', as well as to assist institutional development.

At the same time that we are publishing this Strategy, we are making available our Business Development Plan for 2009-2012. If you want more detail about our plans, that document will provide them for you. Probably the best way to appreciate what we do is to visit our website: <http://edina.ac.uk> There you can browse good quality documentation and case studies and, with the right credentials, you can log in and get full value. On behalf of all at EDINA, I welcome your feedback on our plans by email (edina@ed.ac.uk), by telephone (0131 650 3302) or by other means of social networking.

Peter Burnhill, Director EDINA

2. Mission

EDINA seeks to enhance the productivity of research, learning and teaching, in the UK and beyond.

EDINA is a UK national academic data centre, designated by JISC on behalf of UK funding bodies to support the activity of universities, colleges and research institutes in the UK, by delivering continuing access to a range of online data services through 'network-level' infrastructure, as well as supporting knowledge exchange and ICT capacity building, nationally and internationally.

3. Values

We value:

- *Excellence in our own work and the work of others, especially those we serve*
- *Knowledge and Understanding in service delivery and research work*
- *Engagement with our users and partners, nationally and internationally*
- *Enhancement gained from talent and technology*
- *Enthusiasm in what we do*

4. Context

Based at the University of Edinburgh, EDINA is a national provider of online data services, working closely with its sister data centre Mimas, which is based at the University of Manchester. The growing number of projects that EDINA carries out, sometimes in partnership, help to define how we can add value by preparing new services and assisting JISC in the development of interoperability across services, especially in the Integrated Information Environment (IIE).

EDINA is an integral part of the academic information landscape in the UK, taking a lead in creating and developing services essential for research and teaching that are on the whole not provided by commercial players. It delivers a wide range of cost-effective online services, some specialist in nature and some requiring institutional subscription, which are free at the point of use.

EDINA endeavours to be responsive to its stakeholders, including researchers, teachers and students who are the consumers of its services; and to important decision-makers such as academic support staff, who ensure that academic staff and students can succeed in what they do in cost-effective ways.

4.1 Strategic fit

- As a national provider of services, largely but not wholly funded by JISC, EDINA develops its own strategic imperatives for sustainability.
- As a university-based national data centre, EDINA's strategy is closely aligned with those of the University of Edinburgh and JISC. There is also a wider set of stakeholders whose strategies and policy statements have importance for EDINA. They are listed in Appendix One.

4.2 Strategy overview

EDINA seeks sustainability in the following areas:

- Activity and Value Proposition, providing added-value services that users want to use, sometimes in strategic partnership with other organisations;
- Resources and Context, maximising the return on the tangible and intangible assets of the data centre, especially the reputation and 'know-how' of staff;
- Finance and Liabilities, securing sufficient resources to meet EDINA's goals over the medium- to long-term, and taking into account liabilities incurred.

EDINA's strategic goals in each of these areas, and strategic themes within the goals, are summarised in the following table:

Mission	To enhance the productivity of research, learning and teaching in the UK and beyond... by delivering continuing access to a range of online data services through 'network-level' infrastructure, as well as support knowledge exchange and ICT capacity building, nationally and internationally		
Strategic goals	1. To provide added value, high quality services, leveraged by R&D, enhancement activity and engagement with others	2. To enhance our resource base through staff talent, technology and effective management of resources	3. To sustain and develop a well-founded UK national academic data centre
Strategic themes	1a. Providing a managed portfolio of added value, high quality services	2a. Recruiting, retaining and developing a flexible complement of skilled staff, capitalising on reputation, 'know-how' and partnerships	3a. Securing sufficient funding to meet strategic goals in the medium- to long-term
	1b. Shaping the future and gaining understanding by undertaking innovative R&D projects	2b. Developing and maintaining outstanding IT capability	3b. Managing appropriately financial and legal liabilities
	1c. Gaining leverage through national and international engagement	2c. Providing effective governance and management of resources	3c. Ensuring EDINA's long-term sustainability

4.3 External context

EDINA operates in a continually changing landscape and there are various technology trends, political drivers and social factors that have impact on it.

Some of these drivers include the:

- blurring of boundaries between domains, including the business areas of research, education and knowledge exchange themselves;
- raised level of expectations among end users, arising from their use of applications offered by GYM (Google, Yahoo and Microsoft), web 2.0 services, particularly social networking, user generated content and personalisation;
- 'open' and 'free' agendas in software, content and data provision;
- increasing integration of resources, systems and services;
- growth of inter-working between partners with common aims, both nationally and internationally; and
- growing demand for 'anytime/anywhere' computing, with web services, service oriented architectures, repositories and data infrastructures providing the invisible support that responds flexibly to the needs of the community.

Major changes in the storage, management, use, curation and preservation of data are expected to underpin global collaboration in e-science. Grid technologies, visualisations and immersive environments, and dynamic publishing tools will allow the sharing of massive amounts of data from different sources between many researchers.

Momentum in providing Open Educational Resources (OER) is gathering pace around the world; and services supporting open access to journal articles are receiving support from publicly funded sources, including JISC. Global organisations providing free geospatial and multimedia services directly affect the expectations that our users have of us and our services. Increasing demands on institutional finances are leading to a reduction of specialist support staff at a time when there is growth in awareness and use of complex data, such as geospatial data; and students, as fee-payers, are likely to demand more support and richer user experiences. Legal issues, including intellectual property rights (IPR), privacy, data protection and provenance affect all working in our business areas.

4.4 Strategic business areas

EDINA has key strategic business areas in which it operates, each of which has its own external context, marketplace(s) and business level strategy.

In the **Scholarly Communications** area, we expect the following to be important to us:

- Open Access (OA) agenda, arising from the crisis in scholarly publication due to prices and copyright issues;
- mandates for deposit into institutional OA repositories;
- Research Excellence Framework, which will replace the RAE after the 2008 round, and make greater use of quantitative indicators;
- Google Scholar, which sets a standard for obtaining access to full text sources and influences our Discovery2Delivery work;
- commercial players in this area, which means that we prioritise adding value for our community.

We believe that the future for our scholarly communications business area lies in the areas of providing added value services on content e.g. shared infrastructure and repositories of open content to support the JISC IIE.

In the **Geospatial** business area, we are influenced by the following external factors:

- Google Earth's simplicity and cost model profoundly influences all other geospatial services, because it has altered how people perceive and access geospatial data;
- 'Free Data' movements e.g. the 'Free our Data' campaign and OpenStreetMap, and open philosophies and approaches e.g. GeoCommons;
- publication and implementation of Geographic Information strategies by regional and national governments. The publication of the UK Location Strategy (see Appendix One) is particularly important and has the potential to change the types of geospatial data that are available and ease of access to them;
- ratification and implementation of the Infrastructure for Spatial Information in Europe (INSPIRE Directive);
- increasing recognition of the importance of 'place' as a means for searching for many different kinds of resources, allied to which is the growth of location based services and location aware devices;
- increasing demands on university finances resulting in lower availability of local specialist support staff;
- restrictions on the reuse of data by IPR considerations, but also the desire for DRM mechanisms to monitor, control and protect data as it moves through the value chain. It is important to distinguish between DRM and access management mechanisms too.

The future for our geospatial services lies in new collections for our communities, extension of services to other sectors, using open datasets to underpin work with international colleagues, delivering services via mobile technologies and providing specialist support services.

Our **Learning and Teaching** business area expects the following factors to be important:

- engagement of JISC and UK HE in the Open Educational Resources (OER) agenda;
- emergence of Web 2.0 enterprises that support the sharing of user-generated content and which have shown how content can be the focus of online communities;
- acceptance and use of Creative Commons (CC) licences by leading parts of the educational establishment;
- emergence of support for the open resources agenda and the growing realization by academia that IPR issues can be addressed and managed within that context;
- repositories offered by commercial organisations e.g. Apple iTunesU;
- students and staff using non-institutional services;
- portfolios, e-assessment and personalised learning.

The future for our L&T services lies in successfully building the JISC infrastructure for the sharing of L&T materials, especially in the forthcoming open repository service, surfacing our content in others' services, user tracking and profiling, and creating rich reports, which are crucial for sustainability.

Our **Multimedia** business area is influenced by the following factors:

- how to make our services distinctive within the context of global services, such as YouTube and Flickr;
- how to add value to JISC-funded subscription services in a largely open market;
- how to engage with major cultural content projects, such as JISC's Strategic Content Alliance, which partners with organisations such as the BBC and the National Archives;
- how to develop sustainability for multimedia portals;
- how to pace service development in the context of the rapid increase in Web 2.0 and social networking services;
- licensing by JISC Collections of new content for inclusion in JISC-funded services.

We consider that the future for our multimedia services lies in keeping an active watching brief on emerging technology and functionality, providing tools upon content, reflecting third party holdings in our portals, using innovative ways to present service-related learning materials, and developing engagement with the user community.

Our **Access Management** business area works within the following context:

- JISC has led the policy initiative in the UK to deploy Shibboleth as the next generation access management technology for authentication and authorization across the science and education sectors;
- the technology is of key strategic importance for UK education and research and is leading-edge;
- Shibboleth is not a UK development; it is therefore essential that the UK maintains indigenous expertise in the technology to guarantee the security of service provision and maintenance.

The future for our Access Management business area is to continue on two fronts to provide support for the UK Access Management Federation for Education and Research:

- the 'Federation Support Group', which is responsible for the maintenance of the Federation's metadata and will provide technical and administrative support to Federation members
- the 'Expert Group', which advises JISC on policy and technology, provides test environments and consultancy for the community, and develops components of international importance for the core Shibboleth software.

5. Strategy for 2009-2012

Strategic goal 1:

To provide added value, high quality services, leveraged by research, enhancement activity and engagement with others.

This drives EDINA's activity locally, nationally and internationally; and its value proposition to our stakeholders and users.

Within this overall goal, we have identified three key strategic themes.

Strategic theme 1a:

Providing a managed portfolio of added value, high quality services

Aims:

To support EDINA's end-user and contributor communities in research, education and knowledge exchange by the provision of quality assured services and support.

Strategic alignments:

JISC:

Strategic Aims 1: "Deliver innovative and sustainable ICT infrastructure, services and practice that support institutions in meeting their mission".

2: "Promoting the development, uptake and effective use of ICT to support learning and teaching".

3: "Promoting the development, uptake and effective use of ICT to support research".

University of Edinburgh:

Enabler: Quality Services. Aim: "To deliver efficient and timely services that are customer-focused and of world-class quality".

Enabler: Quality Infrastructure. Objectives include: "Acquire, create, preserve and curate information to support learning, teaching, research and management".

Objectives and key deliverables:

Support research, education and knowledge exchange by providing added value, high quality online services and infrastructure.

- successfully manage the transition of projects into services and launch new online services;

Manage the portfolio and, where applicable, develop additional collections in line with user requirements

- develop EDINA service portfolio management procedures;

Reach out to new communities of users

- test a JISC-licensed content service for UK schools – images that can be used in the classroom and in online resources;

- make available a repository of Open Educational Resources that will showcase around the world materials developed in UK H/FE;
- provide an open international geospatial repository, utilising open data sources, to complement our closed repository for data derived from licensed data sets;

Provide high quality outreach and support services for contributors, end users and support staff

- meet targets for service provision laid down in our Service Level Agreements with JISC;
- increase the number of ways in which we provide virtual assistance to our users e.g. making appropriate use of social media tools, blogs, wikis, RSS feeds and Web 2.0 services;
- investigate the provision of a specialist geospatial advisory service;

Enhance content, presentation and delivery of services in response to community requirements

- implement technical improvements in services, as required, to enhance their performance, speed or resilience;
- add personalisation functionality to our services;
- investigate the delivery of services over the mobile internet;

Support the development of the academic infrastructure in the UK and internationally

- release middleware and tools to support the UK Access Management Federation (UKAMF) and provide technical support for the UK Access Management members, including schools;
- work with Mimas on 'Discovery to Delivery' in scholarly communication services;
- participate in the development of the JISC IIE, e-Framework for Education and Research and the academic Spatial Data Infrastructure (SDI) in the UK and internationally;
- move to offer production level web services and, as part of this, grid-enable our research data services for e-Science;

Future-proof access for researchers of tomorrow

- enable local collection development – the storing and preservation of scholarly content by academic institutions;
- investigate how to create a community-governed, multi-site archive of content when access is threatened by disaster of any kind.

Strategic theme 1b:

Shaping the future and gaining understanding by undertaking innovative R&D projects

Aims:

To innovate and maintain EDINA's position as a leading edge data centre, providing services that users want and need, and to foresee future requirements from the community.

Strategic alignments:

JISC Collections Corporate Plan:

To JISC's priority within Aim 1:

"To continue to develop the two JISC national data centres [EDINA and Mimas] as primary service-partners for a range of content and production services"; and to Priority 6 within Aim 1: "To identify and promote the application of next generation, emergent technologies (in social media, ubiquitous computing and personalized environments) for education, research and administration".

University of Edinburgh:

Strategic goal: Excellence in research. Aim:

"To build on our standing as one of the world's leading research-intensive institutions; to be a vibrant research community that stimulates new ideas and discoveries; and to contribute to the economic, social, cultural and environmental development of Scotland and the world".

Objectives and key deliverables:

Build capacity in EDINA, including strategic capabilities, in each of our business areas, for example -

- look to exploit the data dissemination model which demonstrated the generic capability of geo-linking;
- demonstrate the benefits of an 'ontologically-driven' infrastructure to address issues of discovery, access and use of scientific resources;
- raise awareness of the benefits to be gained through the geographic referencing of resources;
- work with ISSN-IC to assist continuity of access and preservation of journal and other scholarly content;
- provide focus and stepping-off point for access to multimedia materials;
- develop viable business models for a variety of L&T services, including an archive service;
- create and release turnkey IdP installers to lower the barriers for institutions implementing Shibboleth technologies;
- release a new Discovery Service (WAYF) for the UK Access Management Federation;

Manage transition of appropriate R&D projects into services

- identify appropriate projects early and manage them within EDINA portfolio management procedures in conjunction with JISC;

Respond to opportunities to undertake R&D projects

- ensure that sources of opportunities are monitored;

Identify and create opportunities to undertake innovative work that fits within strategic goals

- develop appropriate business development procedures.

Strategic theme 1c:

Gaining leverage through national and international engagement

Aims:

To consolidate and improve inter-working relationships at local, national and international level to more effectively deliver services to our users; and to be nationally and internationally recognised for our activities.

Strategic alignments:

JISC:

Priority 10, Strategic Aim 2: "To support the delivery of Funding Council e-Learning Strategies across the UK, in partnership with HE Academy"; Priority 11, Strategic Aim 3: "To develop a coherent UK research infrastructure and use in collaboration with the Research Councils and other relevant organisations".

Approach: JISC's international role: Activity focus on: "Building a common approach to content management, especially through open access across appropriate research data and outputs, and learning and teaching resources".

University of Edinburgh:

Enabler: Quality People. Objectives include: "Develop a strong international focus and awareness in all of our staff".

Strategic theme: Building strategic partnerships and collaborations. Aim: "To generate added value from strategic partnerships and collaborations".

Objectives and key deliverables:

Highlight gaps and opportunities in existing national and international engagement

- undertake an audit of our strategic partnerships and relationships;

Consolidate and improve existing collaborations

- continue to work closely with our sister data centre, Mimas, and with JISC-funded and other UK centres and initiatives;
- assist member states prepare and test their data for the INSPIRE-led European Spatial Data Infrastructure (see Appendix One);
- participate with partners in Australia and New Zealand on the development of the E-Framework;
- provide focus and stepping-off point for access to multimedia materials;

Build new partnerships and collaborations

- take opportunities to network and build new partnerships in advance of funding opportunities becoming available;
- continue to develop local, national and international engagement and partnerships in all strategic business areas, with governmental, educational, standards development, research data, commercial, web services and grid development organisations.

Strategic goal 2:

To enhance our resource base through staff talent, technology and effective management of resources.

This goal summarises the second strategic area in which EDINA seeks sustainability, namely Resources and Context, the aim of which is to maximise the return on the tangible and intangible assets of the data centre, especially the reputation and 'know-how' of staff.

Within this overall goal, we have identified three strategic themes.

Strategic theme 2a:

Recruiting, retaining and developing a flexible complement of skilled staff, capitalising on reputation, 'know-how' and partnerships

Aims:

To recruit, retain and develop a flexible complement of able, skilled and well-motivated staff and to capitalise on our 'know-how' to deliver our mission.

Strategic alignments:

University of Edinburgh:

Enabler: Quality People. Aim: "To equip staff to realise their full potential as direct contributors to the success of the University". Objectives include: "Recruit, reward, develop and retain high-performing staff; embed a positive performance culture which encourages and recognises success; support staff in ways that promote and sustain positive, productive and safe work environments".

Strategic theme: Promoting equality, diversity, sustainability and social responsibility. Aim: "To embed equality, diversity, sustainability and social responsibility as fundamental principles, and assist all staff and students to realise their full potential".

Objectives and key deliverables:

Provide staff with equitable opportunities for their development, in line with University guidelines and within staff development resources available

- annual development plan agreed with each member of staff;
- policy to ensure that staff members receive equal treatment in terms of accessing development opportunities;
- make available internal and external opportunities for training, self-development and preparation for leadership roles;
- staff with management roles to participate in the University's Leadership and Management Framework;

Empower staff to perform and succeed in their roles and recognise their success

- recognise and reward staff through the University's Contribution Reward scheme;
- ensure that staff receive positive reinforcement in terms of praise and encouragement from managers;
- encourage and support staff to help one another;

Build capability by sharing and exchanging 'know-how' across the data centre, within Information Services and the University, with key partners such as Mimas and other JISC services, and with the outside world

- establish cross-service groups to share and exchange knowledge about common areas across EDINA;
- continue to foster engagement with partners and potential partners around the world, and participate in national and international conferences and events;

Continue to bring in and retain able, committed staff

- keep under review recruitment methods and practices;
- promote equality and diversity in our workplace and maintain flexibility in our working practices;
- ensure staff know about, and benefit from, University policies such as family leave.

Strategic theme 2b:

Developing and maintaining outstanding IT capability

Aims:

To maintain and develop exceptional IT capability as a respected and reliable national data centre.

Strategic alignments:

JISC:

Strategic Aim 1: “To deliver innovative and sustainable ICT infrastructure, services and practice that support institutions in meeting their missions”.

University of Edinburgh:

Enabler: Quality Infrastructure. Aim: “To provide a modern, efficient and stimulating working and learning environment to sustain world-class academic and support activities”. Objectives include: “Ensure that our equipment and IT infrastructure is modern, well maintained and put to good use; have the resource capability to invest in our infrastructure in sustainable ways”.

Objectives and key deliverables:

Maintain and continue to effect a rolling plan of hardware upgrade and replacement to fulfil current and future service requirements

- maintain three-year rolling hardware strategies and update them annually, purchasing new or upgrade hardware as required;
- exploit improvements in hardware technology and performance where cost effective;
- increase processor and memory capacity to meet performance and scalability challenges of increasing service and service development needs;
- use SAN storage to reliably accommodate increasing data volumes;
- exploit backup infrastructure capable of handling the increasing data volumes within appropriate backup windows;
- ensure network infrastructure sufficient to handle the required data volumes;

Improve service resilience and ensure business continuity

- implement dual site resilience for key services;
- fund additional facilities management effort from the University Computing Service;
- improve active service monitoring tools;
- review the resilience of services;
- provide standby provision of key services at a remote location;
- ensure the availability of sufficient trained staff to facility manage EDINA hardware;
- consolidate services using visualisation techniques;
- review annually the IT components of the detailed risk register;
- revise IT disaster recovery plan and emergency management plan;
- test selected components of the IT disaster recovery plan to ensure the plan's effectiveness;

Maintain a coherent and effective software strategy

- review annually the software systems and methodologies in use across EDINA;
- select software appropriate to specific tasks;
- employ effective design, build and control methodologies;
- utilise software that is compatible with the strengths of EDINA staff;
- recognise the benefits of adopting open system software and standards where appropriate.

Strategic theme 2c:

Providing effective governance and management of resources

Aims:

To be able to pursue our mission as an effective and efficient national data centre.

Strategic alignments:

JISC Services Strategy:

Paragraph 21: “The JISC will establish monitoring and reporting mechanisms for its Services and service providers which are proportionate to the scale of operations, with the appropriate balance between the obligation of the service provider to fulfil JISC aspirations and the need for the service provider to have a degree of autonomy and flexibility in the way it manages its operations”.

University of Edinburgh:

Enabler: Quality People. Objectives include: “Support and cultivate an ethos of high-quality leadership and management; achieve a sustainable and diverse staffing profile which meets the University’s needs”.

Enabler: Quality Services. Objectives include: “Promote professional development and responsible resource management; utilise our professional expertise; streamline and standardise processes wherever possible”.

Enabler: Quality Infrastructure. Objectives include: “Have the resource capability to invest in our infrastructure in sustainable ways”.

Objectives and key deliverables:

Work within our governance structure to demonstrate effective management of resources to our key stakeholders

- planning and reporting as required to Information Services, the JISC and the EDINA Management Board;

Improve methods of projecting activity and income, and hence staffing and accommodation requirements

- use the business development plans to project activity and income;
- use these estimates to derive staffing and accommodation requirements;

Ensure that any funding opportunities that arise are considered in line with strategic goals, and resources made available to undertake the work

- work on a framework to make it easier for EDINA to react quickly to opportunities;

Ensure that we make better informed business decisions

- implement improved management accounting systems;

Remove constraints on staffing caused by lack of suitable accommodation

- provide additional accommodation.

Strategic goal 3:

To sustain and develop a well-founded UK national academic data centre

This goal summarises the third area in which EDINA seeks sustainability; namely, Finances and Liabilities, the aim of which is to sustain and develop a well-founded UK national academic data centre.

Within this overall goal, we have identified three strategic themes.

Strategic theme 3a:

Securing sufficient funding to meet strategic goals in the medium- to long-term

Aims:

To obtain the funding that allows us to work and meet our goals.

Strategic alignments:

JISC Services Strategy:

Approach: Criteria for funding include: "The activity provides a UK-wide benefit and adds value beyond that which could be achieved by institutions acting individually or collectively; The activity is not possible, or is unlikely, without central support."

Objectives and key deliverables:

Plan for the future and identify suitable sources of funding

- produce three-year rolling business development plans and identify funding sources for planned activity;

Seek out and taking opportunities to bid for funding from a range of sources if the activity potentially funded is in line with strategic goals

- increase income in each of our strategic business areas;
- actively seek new sources of funding;

Ensure that activity that crosses service boundaries is funded and resourced

- calculate the resource required to contribute to cross-service activities and include it in budget calculations;

If possible, recover Full Economic Costs from funders

- include FEC calculations in budgets wherever possible;

Widen the funding base of the data centre to reduce risk

- seek and take opportunities to apply for funding outside our usual funding streams.

Strategic theme 3b:

Managing appropriately financial and legal liabilities

Aims:

To ensure that EDINA manages its financial and legal liabilities with appropriate care.

Strategic alignments:

University of Edinburgh:

Enabler: Quality Infrastructure. Objectives include: "To be responsive to technological, legal and regulatory change".

Strategic theme: Promoting equality, diversity, sustainability and social responsibility. Objectives include: "Comply with and, where possible, exceed the requirements of relevant legislation".

Objectives and key deliverables:

Meet our obligations for our staffing complement

- ensure that we have funding to meet ongoing staff payroll requirements, including pay increases and employer responsibilities;
- offer support for staff with disabilities or ill health;
- promote equality and diversity in recruitment processes and in support for our staff;

Meet external compliance requirements, including legal and financial

- Maintain a regularly updated Risk Register;
- Conduct Health and Safety assessments;
- Appoint Fol and DP practitioners;
- Ensure that appropriate staff are trained and cascade training as required.

Strategic theme 3c:

Ensuring EDINA's long-term sustainability

Aims:

To provide foundations for the long-term sustainability of the data centre.

Strategic alignments:

JISC

Approach: Sustainability. Pages 28-29: "From August 2006, JISC has contributed towards the full economic cost for all new projects and services it funds within UK HEIs ... Improved processes are being implemented that identify approaches to sustainability earlier in the development cycle, and that support clearer links between development and service activities ... Open source models will be considered as part of the approaches to sustainability ... JISC considers partnerships to be an important element of sustainability ..."

JISC Core Funding Partners Advice Letter 2008-2009 AY

Strategic priorities for JISC during the academic year 2008-09 include: "Research - To improve the sustainability of university research ... Learning and Teaching: To continuously improve the quality of teaching and support for learning ... Shared Services: To improve ... sharing ... to provide sector-wide efficiencies ... Sustainable development: [the HE sector to] be recognised as a major contributor to society's efforts to achieve sustainability, both through the skills and knowledge that its graduates learn and put into practice, and through its own strategies and operations ... Business and Community Engagement (BCE) – To enable HE and FE institutions to engage in a wide variety of ways with business and the community."

University of Edinburgh:

Strategic theme: Promoting equality, diversity, sustainability and social responsibility. Objectives include: "Incorporate equality, diversity, sustainability and social responsibility perspectives into all our activities".

Objectives and key deliverables:

Examine new/innovative models, including funding models, for strategic growth

- Consider how others build capacity and whether the models they use, including funding models, are appropriate for users;
- Facilitate growth by strategic partnerships;
- Use the audit of national and international engagement to identify possible strategic partnerships for future growth.

Appendix One: Strategic fit and stakeholders

Fit to strategies of parent organisations

EDINA's strategy is directly aligned with the following strategic statements of its parent organisations. Section 4 gives details of how EDINA's strategic goals and themes are aligned with the strategic plans of its parent bodies.

The University of Edinburgh Strategic Plan 2008 – 2012¹

EDINA's goals and operational priorities are aligned with the University of Edinburgh's core strategic goals: "Excellence in education; Excellence in research; and Excellence in commercialization and knowledge exchange". These goals are underpinned by three cross-cutting supporting goals: "Quality people; Quality services; and Quality infrastructure." In addition, a number of operational priorities have been identified that shape the University's approach to the achievement of goals. Of particular importance to EDINA are: "Building strategic partnerships and collaborations" and "Promoting equality, diversity, sustainability and social responsibility".

JISC Strategy 2007 - 2009²

JISC is core funded by UK H/FE funding councils³, specifically:

- Higher Education Funding Council for England (HEFCE)
- Scottish Funding Council (SFC)
- Higher Education Funding Council for Wales (HEFCW)
- Department for Children, Education, Lifelong Learning and Skills (Welsh Assembly Government)
- Department for Employment and Learning (Northern Ireland)

JISC also receives some funding from the Learning and Skills Council and the Research Councils, but they are not core funding partners.

JISC's strategy is aligned to those of its funding councils. EDINA's strategy is therefore also aligned with them. JISC has also published an Advice Letter⁴ from HEFCE, on behalf of the core funding partners, which sets out their strategic priorities for JISC in the academic year 2008-2009. These priorities are in the areas of: Research; Learning and Teaching; Widening Participation and Widening Access; Shared Services, Management and Administration; Sustainable Development; Business and Community Engagement; Efficiency and Reducing Burdens; and Full Economic Costs. A number of priorities specific to each funding council is also provided.

JISC's Strategy 2007 – 2009 states that, "JISC envisages continuing to develop the two JISC national data centres (EDINA and Mimas) as primary service-partners for a range of content and production services". Many of EDINA's services are mentioned in JISC's plan. They are key ways in which the JISC mission is realised, within the UK and in important strategic partnerships, such as Knowledge Exchange and the E-Framework for Education and Research:

1. http://www.planning.ed.ac.uk/strategic_planning/SP2008-12/index.htm [October 2008]

2. <http://www.jisc.ac.uk/aboutus/strategy/strategy0709.aspx> [October 2008]

3. http://www.jisc.ac.uk/aboutus/about_jisc.aspx [October 2008]

4. Advice Letter from JISC's Core Funding Partners for 2008-2009, dated 8 August 2008. At: <http://www.jisc.ac.uk/media/documents/aboutus/aboutjisc/jiscfundingadviceletter0809.pdf> [October 2008]

Knowledge Exchange

“Knowledge Exchange aims at developing closer working relationships between key national agencies and organisations within Europe, responsible for the development of infrastructure and services to support the use of ICT within education and research”⁵. Partners in the Knowledge Exchange are:

- JISC
- Danish Electronic Research Library (DEFF)
- German Research Foundation (DFG)
- SURF Foundation, Netherlands.

Knowledge Exchange was set up in 2005 for three years. Its goal was to make a layer of scholarly and scientific content openly available on the internet. Its vision statement had four priorities: to build an integrated repository infrastructure; to explore new developments in the future of publishing; to facilitate integrated management services within educational and research institutions; and to support the European digital libraries agenda.

At the final Board meeting⁶, it was decided to continue the partnership into a period of new tasks that would focus on areas such as Virtual Research Environments, Primary Research Data and the relationship between national and European IT-infrastructure policies. EDINA is working in all three areas.

In the coming years the strategic guidance of the Knowledge Exchange will be managed by the Steering Group and an annual Strategy Forum event.

The E-Framework for Education and Research

“The e-Framework for Education and Research is an international initiative that provides information to institutions on investing in and using information technology infrastructure. It advocates service-oriented approaches to facilitate technical interoperability of core infrastructure as well as effective use of available funding.”⁷

The e-Framework was initially established by JISC and Australia’s Department of Education, Employment and Workplace Relations (DEEWR), formerly the Department of Education, Science and Training (DEST). The New Zealand Ministry of Education (NZMoE) and the Netherlands SURF Foundation (SURF). EDINA is participating in a number of e-Framework activities and has been invited by JISC to undertake the mapping of geospatial standards to the E-Framework for Education and Research, work that has commenced with JISC’s Australian and New Zealand partners.

*JISC Services Strategy*⁸

EDINA’s strategic goals are also aligned with key JISC policies, such as the JISC Services Strategy.

*JISC Collections Corporate Plan*⁹

The JISC-related organisation, JISC Collections, is strategically important to EDINA and our strategic aims are related to its Corporate Plan.

5. <http://www.knowledge-exchange.info/Default.aspx?ID=78> [October 2008]

6. See: <http://www.knowledge-exchange.info/Default.aspx?ID=62&M=News&PID=10&NewsID=42> [October 2008]

7. <http://www.e-framework.org/> [October 2008]

8. JISC Services Strategy, October 2007. At <http://www.jisc.ac.uk/media/documents/services/jisc-service-strategy-final.pdf> [October 2008]

9. http://www.jisc-collections.ac.uk/media/documents/jisc_collections/jiscco-corp-plan.pdf [October 2008]

Stakeholders' strategies

There is a wider set of stakeholders whose strategies have some importance for EDINA. Two, the Economic and Social Research Council (ESRC) and the European Union, provide grant funding for some activities. Others have impact on EDINA's parent bodies and therefore indirectly on EDINA. The main points of their strategic statements that have relevance to EDINA are given below.

Research Councils UK (RCUK) Synthesis of Strategies¹⁰

RCUK published a synthesis of the strategies of the UK Research Councils in November 2003, with a view to "... developing an overarching vision for the direction of the Councils' research over the next 10 to 20 years". This document states that, "Increasingly, the driver for determining priorities is more a cross-Council collaborative analysis of the research panorama and less the specific viewpoint of a single Council". Among other RCUK priorities are the following: promotion of the value of discovery as a spur to understanding and new thinking; the effective dissemination of research results; increasing the effectiveness and productivity of UK research in the delivery and exploitation of 'grid' technologies; and building national capability in data collection and management.

Research Councils UK (RCUK) Delivery Plan 2008/09 – 2010/11¹¹

The plan has been updated for 2008 and among its objectives are to coordinate the delivery of multidisciplinary research in six areas, including the "Digital economy" and "Living with environmental change". In the former, funding will be concentrated upon areas in which "... the management and presentation of information can have maximum impact: healthcare, transport and the creative industries"; and in the latter, RCUK aims to provide "... the best information to enable sustainable management and protection of vital ecosystem services". The RCUK also aims to provide access to world class research facilities, promote the sustainability of the UK research base and encourage international collaboration.

Research Information Network Business Plan 2008 - 2011¹²

The plan notes (page 2) that the pace of change is quickening and that, "New services and behaviours, including those commonly referred to under the heading of Web 2.0, will have profound implications for researchers, institutions and funders, as well as current service providers". The core aims of the plan are to develop the evidence base, provide authoritative advice and guidance, and promote change.

Research Libraries UK (RLUK) Strategic Plan 2008-2011 'The Power of Knowledge'¹³

RLUK, formerly CURL, is a membership organisation of the UK's biggest research libraries, including Edinburgh University Library. EDINA participates directly in one of RLUK's key strategic themes, "Resource discovery and delivery", partnering with Mimas in the D2D (Discovery2Delivery) project.

10. <http://www.rcuk.ac.uk/aboutrcuk/publications/corporate/synthstrategies.htm> [October 2008]

11. <http://www.rcuk.ac.uk/cmsweb/downloads/rcuk/publications/2008deliveryplan.pdf> [October 2008]

12. [http://www.rin.ac.uk/files/Business Plan 2008-2011 final.pdf](http://www.rin.ac.uk/files/Business%20Plan%202008-2011%20final.pdf) [October 2008]

13. <http://www.rluk.ac.uk/node/480> [October 2008]

*Universities UK Corporate Plan 2007 - 2010*¹⁴

The first aim of UUK's Corporate Plan 2007 – 2010 is: "To provide members with foresight on policy issues and help them shape the agenda". The key priorities within this aim are to support institutions to innovate and enhance the student experience in response to increased expectations; with regard to the skills gap, to identify where the sector can add value and support increased engagement with employers and the FE sector; and embrace international competitiveness by ensuring that the UK is the partner of first choice overseas and in Europe for, among other things, research collaboration, student education and consultancy.

*HM Government: Science and Innovation Investment Framework 2004 – 2014*¹⁵

The Government [HM Treasury, Department for Trade and Industry and the Department for Education and Skills] published the ten-year Science and Innovation Investment Framework in 2004, setting out a long-term vision for UK science and innovation, together with ambitions for public and private investment in R&D to reach 2.5 per cent of GDP by 2014. The Government's aims that, among other things, the UK should continue to improve its performance in science, innovation and knowledge transfer; and universities should demonstrate robust financial management to ensure sustainability in research activity and investment.

*Scottish Science Strategy*¹⁶

The Scottish Government notes that the Science and Innovation Investment Framework represents "... a significant real growth in funding of science over the coming decade, which should ... benefit Scotland if our universities, as in recent years, continue to win around 12% of such funding through the UK Research Councils". Key aims of the Scottish Science Strategy are to maintain a strong science base fully connected to UK and international activity and funding sources; and to promote Scotland as a centre of world-leading scientific excellence. A consultation exercise to update the strategy reported in Spring 2007¹⁷. Three of the areas in which the Government requested feedback were: "Maintaining and developing the excellence of the science research base"; "Enhancing international connections and capturing overseas investment"; and "Intensifying knowledge exchange between academia and business". The University of Edinburgh was one of 86 respondents from all sectors.

*Skills for Scotland: A Lifelong Skills Strategy*¹⁸

The Scottish Government released Skills for Scotland in September 2007. A key aim is to "... develop potential – equipping individuals with the skills Scotland needs, by supporting the central role played by colleges and capitalising on higher level skills".

*International Lifelong Learning: Scotland's Contribution*¹⁹

This strategy was published by the Scottish Government in June 2007. It aims to: "... position Scotland as a world leader in international post-school education; and more widely to make Scotland a more attractive place to live, work and study in order to support economic growth". One of the supplementary aims is to: "Facilitate the universal employability of all our students".

14. <http://www.universitiesuk.ac.uk/AboutUs/WhatWeDo/Pages/Corporate-Plan.aspx> [October 2008]

15. http://www.hm-treasury.gov.uk/media/5/B/spend04_sciencedoc_1_090704.pdf [October 2008]

16. <http://www.scotland.gov.uk/Topics/Business-Industry/science/16607/21333> [October 2008]

17. <http://www.scotland.gov.uk/Resource/Doc/981/0052726.doc> [October 2008]

18. <http://www.scotland.gov.uk/Publications/2007/09/06091114/0> [October 2008]

19. <http://www.scotland.gov.uk/Publications/2007/06/20105021/0> [October 2008]

*One Scotland – One Geography: A Geographic Information Strategy for Scotland*²⁰

This strategy "... sets out a proposed approach to the more systematic and effective use of geographic information in the development and delivery of policy and services to the benefit of the people of Scotland". This strategy is of significance for EDINA's geo-spatial services and our staff participate in the Scottish Executive's Geography Technical working group.

*Place Matters: The Location Strategy for the United Kingdom*²¹

The Government has formed a Geographic Information Panel that "... represents key interest groups in government, the private sector and the wider Geographic Information industry across the United Kingdom". In response to a written Parliamentary Question, published on 9 January 2008, the Government indicated that it expects "... to publish Place Matters: The Location Strategy for the United Kingdom early this year". This is again a strategy that will be of significance for EDINA's geo-spatial services. [October 2008 update: this strategy is still not published.]

European Union: FP7, INSPIRE, DRIVER and looking ahead to 2009

1. The EU's Seventh Research Framework Programme (FP7)²² is the overall framework for all research-related EU initiatives, along with education and training programmes, and Structural and Cohesion funding for regional convergence and competitiveness. Three information society policies under FP7, "Regulating the market; Stimulating the information society; and Exploiting the benefits" are grouped under the i2010 Initiative²³, which is the framework for "... addressing the main challenges and developments in the information society and media sectors in the years up to 2010. The initiative promotes an open and competitive digital economy, research into information and communication technologies, as well as their application to improve social inclusion, public services and quality of life".

The main priorities of the i2010 Initiative are: "The completion of a Single European Information Space; strengthening innovation and investment in ICT research; and achieving an Inclusive European Information Society consistent with sustainable development".

2. Directive 2007/2/EC²⁴ of the European Parliament and of the Council, establishing an Infrastructure for Spatial Information in the European Community (INSPIRE), is significant for EDINA's geo-spatial services. Paragraph (3) of the preamble states that, "The problems relating to the availability, quality, organisation, accessibility and sharing of spatial information are common to a large number of policy and information themes and are experienced across the various levels of public authority. Solving these problems requires measures that address exchange, sharing, access and use of interoperable spatial data and spatial data services ... An infrastructure for spatial information in the Community should be established".

Public authority is defined as, "Any government or any other public administration, including public advisory bodies, at national, regional or local level". Public authorities include universities working in the area of geo-spatial provision and therefore INSPIRE has relevance for EDINA.

20. <http://www.scotland.gov.uk/Publications/2005/08/31/114408/44098> [October 2008]

21. <http://www.gipanel.org.uk/gipanel/index.html> [October 2008]

22. http://cordis.europa.eu/fp7/understand_en.html [October 2008]

23. http://ec.europa.eu/information_society/policy/index_en.htm [October 2008]

24. <http://www.ec-gis.org/inspire/> [October 2008]

3. “Considered the largest initiative of its kind in helping to enhance repository development worldwide, DRIVER is a multi-phase effort whose vision and primary objective is to create a cohesive, robust and flexible, pan-European infrastructure for digital repositories, offering sophisticated services and functionalities for researchers, administrators and the general public.

“DRIVER has established a network of relevant experts and Open Access repositories. DRIVER-II will consolidate these efforts and transform the initial testbed into a fully functional, state-of-the-art service, extending the network to a larger confederation of repositories. DRIVER is integral to the suite of electronic infrastructures that have emerged in the worldwide GÉANT network and is hence funded under the e-Infrastructures call of the European Commission’s 7th framework programme. It aims to “... optimise the way the e-Infrastructure is used to store knowledge, add value to primary research data and information making secondary research more effective, provide a valuable asset for industry, and help bridging research and education.”

DRIVER is relevant to EDINA’s work in scholarly communications.

4. The EU has announced that it wishes to make 2009 the European Year of Creativity and Innovation²⁵.

“Europe is striving to become the world’s leading knowledge-based economy by 2010. It is widely agreed that to reach this target will require encouraging people to develop skills in a number of areas that are key to building a knowledge-orientated society.

“One of these areas is education and the specific subjects of mathematics, science, information and other technologies. The Year will therefore concentrate on helping people develop better skills in problem-solving and applying knowledge and ideas in real life situations. Activities focusing on social and entrepreneurial innovation will also be encouraged.

“Because of the importance of the cultural sector to the economy, artistic creativity and flair will also be promoted in 2009, as a follow-up to the European Year of Intercultural Dialogue (2008). Other policy areas covered by the Year will include business, media, research, and social, regional and rural development.”

25. http://cordis.europa.eu/fetch?CALLER=EN_NEWS&ACTION=D&DOC=6&CAT=NEWS&QUERY=011cd1b3e4c2:96b2:24337604&RCN=29289
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EDINA
Causewayside House
160 Causewayside
Edinburgh
Scotland
United Kingdom
EH9 1PR

Email: edina@ed.ac.uk
Phone: +44 (0)131 650 3302
Fax: +44 (0)131 650 3308