Institutional Efficiency: examples of activities where efficiency gains have been achieved

The information collected on college and university returns contains information on the types of activities being undertaken to bring about the efficiency gains. A list of examples of those activities taken from previous returns is set out below.

Please note that some of the activities in the list below span more than one category.

University sector

Business process improvements

1. Examination system:
   - Electronic circulation of external examiner reports.
   - Online moderation.
   - Online results notification.

2. Student admissions and recruitment:
   - Implementation of new online recruitment tool.
   - Online matriculation of continuing students with roll-out to new students - saving on staff and student time.
   - Use of online course applications.
   - Use of online enquiries – applicants are able to track the progress of course applications and requests for information reducing the number of email and telephone enquiries to the student records office.
   - Streamlined wireless registration – reducing need for staff to support student wireless access set-up.
   - Increased use of IT for production and submission of forms within Registry.
   - IT enabled improvements to student registration process, curriculum management process, and Post Graduate Admissions Process.

3. Management and maintenance of IT:
   - Automatic power-down of teaching room PCs.
   - Savings in staff time / space arising from other IT related initiatives including Sibboleth, Absence Management and Document Imaging.
   - New student information system.
• Student information extraction – system to allow the extraction of student information by individual departments will allow data to be extracted on a class basis.
• Thin client – hardware and energy efficiencies.
• Library – introduction of RFID technology to both improve operations and services within the library.
• Software for staff and students will be supplied under a site license rather than purchasing individual packages.
• Removal of duplicate systems.

4. Student attendance and monitoring:
• Online course feedback submission from students via VLE – removes the need to manually scan in the hardcopy survey returns and import data to spreadsheet for analysis.

5. Research:
• Introduction of a new Research Information Management System is anticipated to increase the rate of growth in research income.

6. Budgeting and financial management:
• Automation of financial practices – secure electronic storage of customer credit card details.
• Change to tuition fee invoicing process with implementation of Student Account Management module.
• Electronic invoicing and supplier statements.
• Enhanced treasury management.
• Improvements in debt management process.
• Online direct debit mandate set-up – reducing input required by finance staff.
• Online payment of student fees, accommodation and short courses – eliminating need for finance staff to process the payments manually.
• Development of finance system.
• Improved management of non-Sterling payments.
• Improved return on endowment capital investment by appointment of professional Fund Managers, with advisory and discretionary roles.

7. HR:
• Employee / Manager self-service – managers and staff will have access to view and update data held against the employee record.
• Roll out of Document Management System (DMS).
• New policy for employment of temporary staff and for additional payments to existing staff.
• Self service HR and payroll system – streamlining essential HR / payroll processes and eliminating current duplication of data entry.
• Staffing reviews of: Information Services; Technicians; secretariat; and student services.
• Vacant posts not being filled.
• Online posts not being filled.
• Automated authority to appoint process.

8. Project management:

• Project management system to drive and standardise best practice throughout the organisation.

9. Other:

• 5 day Lean intervention using Kaizen Bitz methodology – complete review and redesign of research application and award management, strategic planning process, accounts payable process, library, appeals process, estates, self-certification of student absence, staff recruitment processing, casual contracts.
• Restructuring of schools within the university.
• Joint business development team across two institutions
• Professional Services Theme Team activity – improved student retention and progression through an integrated student support service, including pro-active welfare support and a one-stop shop concept.
• Relocation of digital media loans to library enquiry desk – rationalisation of service points.
• Review of all administrative departments to support new academic structures.
• Re-organisation of records management and risk management.
• Merger of the Student Programmes & Examinations Office and the Student Matriculation & Records Office to form the Student Administration Office.
• Implementation of Project Financial, Accounting and Costing Tool (pFACT) costing system, thereby enabling a restructure of support for costing, pricing and financial administration within the area of research.
• Pilot of ‘In Practice’ placement administration software to streamline and create efficiencies in the way placements are administered.
• Replacement of existing in-house Virtual Learning Environment (VLE) with Moodle.
• Student handbooks to be provided online instead of hard-copy format for all students.
• Replacement of student ID card with new smart card which will be rolled out over the next few years as a ‘cashless’ card.
• Student growth accommodated with only partial pro-rata increase in academic and support staff.
• Curriculum rationalisation.

**Estates**

1. Energy:
   • Energy efficiency projects.
   • Carbon Management projects.
   • Change to energy efficient light bulbs in Halls of Residence.
   • Window replacement project.
   • Installation of zone heating to allow better temperature control.
   • Replacement / upgrade of air conditioning unit.
   • Replacement of biological sciences chiller.
   • Roof replacement.
   • Various estates lighting and building controls replacements / upgrades.
   • Introduction of voltage reduction equipment.
   • Introduction of movement sensors to shut down power when no-one is present or moving.
   • Energy awareness campaign and staff training.

2. Contracts:
   • Janitorial and cleaning services at lower cost.
   • Renegotiation of plant maintenance contract.
   • Provision of grounds and property maintenance services to third party companies.

3. Staffing:
   • Review of estates department staffing.
   • Restructuring of grounds maintenance staffing.
   • Review of working hours for security staff.

4. Buildings:
• Aggregated estates project efficiencies.
• Consolidation of estates.
• Disposal of buildings – elimination of backlog maintenance and running costs.
• Improved utilisation of space out-with term time.
• Re-configure internal space to free up teaching space thereby reducing the need to hire external space.
• Vacation of leased building and relocation of staff to main campus.
• Lease of vacant, unusable office space to a third party.
• Higher proportion of planned maintenance of residential estate now being undertaken in-house rather than by external contractors.

5. Processes:

• Review and implementation of new working practices for portering staff.
• Implementation of stack control system at general stores.
• Restructure of Estates related committees.

**Procurement**

1. Contracts:

• Banking contract reduced transaction costs and reduced loan finance costs.
• Out-source: administrative function.
• Procurement of Health and Safety training requirements from in-house consultant – staff trained annually and tested in-house to ISOH qualification level.
• Re-negotiation of cleaning contract, and lease of motor vehicles.
• Re-tender of insurance, and PAT testing of electrical appliances
• More focussed contract for catering.
• Discount scheme negotiated with catering provider.

2. Systems:

• Conversion of low-value and one-off orders to Automated Procurement Card.
• Conversion of postal and faxed orders to electronic transmission
• E-invoicing.
• Electronic ordering.
• Electronic tendering.
• e-procurement systems.
• Invoice and order consolidation.
3. Processes:

- Improved tendering processes.
- Ordering process efficiencies.
- Planned approach to PC procurement.
- Procurement function outsourced to another institution.
- Professional procurement resource from another institution for capital project.
- Recycling and refurbishment of furniture stock.
- Use of purchasing / credit cards.
- Efficient procurement processes applied.

**Shared services / collaboration**

- Merger savings.
- Shared services in co-located campus.
- Single IT support service across the UHI partnership.

**Other**

1. HR:

- Improved staff recruitment processing.
- Reduction in recruitment advertising.
- Voluntary severance scheme.
- Introduction of Salary Sacrifice for pension contributions.
- Reduction in recruitment.
- Reduction in library related expenditure.

2. Systems:

- Improved remote PC support.
- Improved software deployment.
- Increasing the use of AV technology.
- Unified messaging – bringing voicemail into Outlook alongside email and calendar.
- Virtualisation of server infrastructure – reduction in the number of physical servers required.
- Wireless networking throughout the institution.

3. Other:

- Centralised administration.
• Development of centre of lifelong learning.
• Disaggregation of terrorism cover from long term insurance agreement.
• Establishment of student employment centre.
• Move away from brokered insurance arrangements.
• Renegotiation of loan agreement margins.
• Campus services – move from catered to self-catered accommodation.
• Outsource retail unit at Halls of Residence.
• Savings in bank charges.
College sector

Business process improvements

1. Examination system:
   - Decentralisation of results.
   - Implementation of online resulting facility.
   - New business process for registration of students going forward to examination.
   - Online graduation application.
   - Online re-sits.
   - Online results processing.
   - Real-time resulting.

2. Student admissions and recruitment:
   - Centralised approach to recruitment and advertising.
   - Finance staff involved in enrolment at an earlier stage, simplifying and speeding up the process.
   - Increased efficiency in deployment of teaching staff following review of student recruitment.
   - Initiative to recruit more overseas students.
   - Introduction of online enrolment and registration system for full-time students.
   - Multi-skilling of staff to assist front of house during recruitment periods.
   - Online course applications – eliminates need for staff to transfer details from the hard copy forms into the student information system as this process is carried out automatically.
   - Online enrolment for all VQ / distance learning students
   - Online enrolment for full-time students.
   - Streamlined registration.
   - Self-service online enrolment with a payment gateway.
   - Student enrolment process improvements.
   - Student ID card printing – access to web-cams to capture own pictures at enrolment.
   - Student self-verification of personal data.
   - Upgrades to student admissions, recording, finance systems to reduce paper flow.
   - Use of e-marketing during student recruitment.
3. Management and Maintenance of IT:

- Automatic switch-off of computers at night reducing power and computer wear and tear.
- College portal provides a one-stop location for documents and forms.
- Integration of stand-alone Customer Relationship Management (CRM) system with main Management Information System (MIS), removing double handling of information.
- Development of ICT – increased use of email and information stored and retrieved electronically.
- Electronic payments. Remittances, purchase orders and production / distribution of reports.
- Implementation of patch and power management software.
- Installation of Deep Freeze software on all PCs.
- Incident and asset management software.
- Increased use of video conferencing to reduce travel budget.
- Installation of SITS resulting in more efficient application and enrolment and more timely student absence information.
- Installation of document management system.
- Investment in ICT systems has improved services reducing downtime.
- MIS electronic distribution of standardised reports.
- Enhance MIS function through development of real-time electronic systems, effective procedures and staff structures. Improve student activity management information, student pastoral data, activity forecasting and planning.
- Purchase of scanner allowing questionnaires to be processed and results compiled more quickly. Data entry is more efficient with less opportunity for data input errors. Reporting functionality is also improved.
- Real-time management information via the intranet.
- Roll out of Edutext.
- Server virtualisation.
- Server virtualisation – reduced costs in terms of server purchase and maintenance costs.
- Use of e-Portfolio for automating letters.
- Use of Enquirer.
- Review of MIS and IT costs and services.
- Amalgamation of MIS into the ICT department.
- Introduction of Moodle for online learning.
- Introduction of online surveys from a paper based system.
4. Student attendance and monitoring:
   - Development of e-register reporting format.
   - Electronic registers.
   - Implementation of web register system and enhancement of electronic timetabling system.
   - Improvements in bursaries, online services and attendance automation.
   - Increased use of web-registers.
   - Move to online student surveys.
   - Online attendance recording – allows the college to identify at risk students quickly and marshal support facilities as quickly as possible to improve retention rates.
   - No inputting of attendance into MIS for non-full time programmes.
   - Retention programme developed to encourage students to remain at the College.
   - Review of student retention.
   - Update of content management system.

5. Marketing:
   - Joint marketing of course with other colleges.
   - Joint working with other colleges to share marketing costs.
   - Reduce marketing costs of publications.
   - Reduction in marketing and advertising costs.
   - Use of e-prospectus on website.

6. Timetabling and related tasks:
   - Academic teaching timetable / contact time reviewed.
   - Centralised timetabling system.
   - Implementation / enhancement of timetabling software.
   - Improved room utilisation information.
   - Introduction of automated timetabling system.

7. Budgeting and financial management:
   - BACS payments to suppliers.
   - Efficient management of educational supplies.
   - Email of purchase orders and remittance advices.
   - Implementation of new student funding software (Tequios) and integration of hardship funding with finance function.
   - Implementation of online payment system for student fees and suppliers.
• Implementation of web-based purchase order system linked to finance system.
• Improved access to budgets online for budget holders.
• Increased use of BACs.
• Increased use of video conferencing to reduce travel budget.
• Introduction of zero based budgeting.
• Lower permanent and temporary teaching costs arising from increasing use of new technologies and new pedagogical approaches.
• New finance system introduced.
• New payroll service provider and elimination of weekly payroll.
• Online timesheets and travel claims for staff.
• Revised ICT hardware replacement strategy.
• Support for improved budget monitoring.
• Use Sharepoint software to help monitor financial statements – save on Vision software.
• Deposit of funds, streamlining of cash management and competitive interest quotes.
• Reduce the number of secure cash collections.
• Full utilisation of debt collection module.

8. HR:

• Centralisation, rationalisation and streamlining of processes in administrative functions and student administration functions.
• Changes to structure of senior management team.
• E-enable HR services.
• HR system developed to allow all employees access to records and information updated online. Also option to receive payslips by email for all staff.
• Improved sickness absence procedure.
• Improved absence management reporting.
• Lower support staff costs arising from automation of procurement processes.
• Online approval of temporary staffing contracts.
• Rationalisation of technical support staff structures.
• Recruitment advertising reduction.
• Restructure of support functions.
• Restructuring of senior management team.
• Upgrading payroll / HR system.
• Switch to online staff recruitment from use of employment agencies.
• Introduction of flexi time policy to reduce overtime.
9. Curriculum:

- Continual review of curriculum; planning with other colleges in the area to reduce inefficient classes and improve provision to the students.
- Curriculum review.
- Delivering CPD activities in-house.
- Development of blended learning.
- EFQM model is used for systematic review of process leading to improvements.
- Flexible blended learning.
- Increased use of online course materials and blended learning.
- Increased use of remote learning centres.
- Joint curriculum development with other colleges in all subject areas.
- Networking of HN Business teaching units with other colleges.
- Review of portfolio to achieve more efficient delivery of HN programmes.

10. Other:

- Business process review of key college processes.
- Increased centralisation of customer relationship management facilities.
- New back office integrated system.
- Organisational Development Project – identified a number of projects that should improve and or streamline processes.
- Reduction in paper usage.
- Replacing staff desktop printers with smaller number of larger copier/printers on phased move to new build.
- Delivery of PDP by learning assistants instead of lecturing staff.


**Estates**

1. **Energy:**
   - Energy efficiency projects.
   - Carbon Management Plan.
   - Installation of PIR sensors.
   - Switch electric heaters in switchroom to frost protection mode.
   - Set electric heaters in lift shaft to frost protection mode.

2. **Contracts:**
   - Change security arrangements.
   - Consolidation of term maintenance contracts.
   - Review of ground maintenance arrangements / change to in-house arrangements.
   - Change from night shift cleans to evening shift cleans to save energy costs.

3. **Buildings:**
   - Caretakers undertake minor maintenance.
   - Improved timetabling and room utilisation.
   - New building – savings in running costs.
   - Relocation of units to a purpose built facility – efficiencies in running costs.
   - Renting out surplus accommodation.
   - Review of leased premises – tie in lease period with contract duration.
   - Review of outreach centres.
   - Shared accommodation / estate - working in partnership.
   - Review of college opening hours.
   - Closure / sale of property.
   - Re-negotiation of lease.
   - Reduction in use of external premises.

4. **Equipment / Fittings and Fixtures:**
   - Extending use of VOIP phone system into new build – reduction in rental and call costs.
   - Increased level of sensor lighting throughout the building.
   - Installation of energy monitoring equipment.
   - Refurbish oil tanks instead of replacing.
5. Systems:
   - Update to building management system.
   - Upgrade and greater use of capital asset software.

6. Other:
   - Increased recycling of waste.
   - Rescheduling of borrowing – over longer period.
   - Sustainability policy.
   - Reduced number of refuse collections.
   - Review of estates team.

**Procurement**

1. Contracts:
   - Bulk buying paper for annual usage.
   - Purchase of cheaper quality paper.
   - Contracting out of catering services.
   - Consolidating supplier base and annual contract negotiations.
   - Job advertising and printing of publicity materials to be re-tendered.
   - Out-source printing.
   - Purchase of two college cars instead of staff claiming mileage for use of their own cars.
   - Rationalise the: number of printers / photocopiers – use more versatile machines; student / staff printing – under one supplier.
   - Re-negotiation of telephone maintenance contract.
   - Re-tender of contracts, including catering, cleaning and photocopying, insurance, cleaning, printing, maintenance, waste disposal, PR and advertising, and fleet vehicles.
   - Review of international mailing costs, PR and advertising.
   - Review of catering activities, insurance resulting in better cover and less cost, telephone line rental and mobile phone contract.
   - Stationery / toner price reduction.
   - Hire of a bus to transport students as opposed to paying the students daily bus fares.
   - Reduction in college contracted bus routes due to low demand.
   - Use of APUC and Procurement Scotland contracts.

2. Systems:
   - e-purchase requisitioning.
   - e-goods received notes.
• Sharing IT infrastructure with the local authority.
• Implementation of e-procurement.
• Introduction of PECOS for order punch out and automated authorisation.

3. Processes:
• Implementation of a revised strategy for the management and control of printing and photocopying.
• Lower supplies costs arising from review of purchasing arrangements (non-APUC).
• Planned approach to PC procurement.
• Procurement of fixtures, fittings and equipment for new campus.
• Reduced energy usage in new build.
• Reduced use of external buildings.
• Rental income from shared services in new build.
• Staff adverts now on College website where applications can be downloaded – savings in postage, paper, staff time etc.
• Use of procurement manager.
• Use / more effective use of purchasing / credit cards.
• Creation of a Procurement Officer post.

Collaboration / Shared services
• Sharing of a Health & Safety Manager with another institution.
• Creation of shared FM and ICT services with another institution on a shared campus.
• Joint appointment of an International Officer.
• Partnership with another college for Flexible Blended Learning.
• Shared accommodation by working in partnership with other colleges and agencies.
• Rural colleges working together to market land-based courses.

Other
1. HR
• Academic restructure.
• Functional review carried out to improve staff utilisation reducing level of agency staff required.
• HR systems development to enhance HR monitoring and planning.
• Installation of new HR system CIPHR.
• Staff restructuring / reorganisation.
• Teaching staff utilisation improvements.
• Use of instructors.
• Vacancy management – non-replacement and deferral.
• Voluntary severance scheme.
• Work load analysis for teaching staff.

2. Systems:
• Installation of virtual servers.
• Installation of Asset management software.
• Introduction of wireless network hotspots throughout the College.
• Investment in USB sticks for staff and students to provide learner materials rather than use paper based materials.
• Set up staff and student intranet to allow online access to information.

3. Other:
• Elimination of requirement for College subsidy to canteen.
• Elimination of climate change levy on utility bills.
• Improvement in efficiency of student refectory.
• Introduction of ‘one stop shop’ for student support.
• Mobile learning vehicle to provide IT training to rural and remote communities – reduces the need to rent premises.
• Photo ID cards for students enhancing security.
• Replacement of walkie talkies with mobile phones.
• Review of catering services.
• Review of efficiency across the college with focus on class sizes and reducing less efficient areas of portfolio.
• Sustainable transport partnership to enable students, staff and the general public to access the college.
• Refectory opened during term time only.