Shared services for life long learners through the National Entitlement Card

Scope

This document is a continuation of the strategic development bid, previously approved by the Scottish Funding Council to undertake a scoping exercise on extending the National Entitlement Card (NEC) into Scotland's universities and colleges in order to develop smart applications and shared services which support lifelong learning.

External evaluation (Inter-ed Ltd., 2008) has found a high degree of confidence in the Project's design, management, execution and the outputs produced during its first phase. The evaluation also provided informed direction as to the Project's further development (should it progress into its subsequent phases) to maximise value in developing and enhancing lifelong learning. Subsequently, the description of the Project as presented within the initial bid remains valid. To minimise unnecessary repetition this document only draws upon information presented in the initial bid where necessary. Readers may therefore wish to consult both the initial bid and the Project evaluation report (see APPENDIX A and B respectively).

This (continuation) bid is structured in seven parts.

- ***PART A: Vision statement***: supported by a scenario and an assessment of the Project's *strengths, weaknesses, opportunities* and *threats*, a high level overview of the operation and benefits of deploying the National Entitlement Card and accompanying lifelong learning application(s) throughout Scotland's colleges and universities.

    [Pages 3 – 7]

- ***PART B: Review of phase one***: a summary of the Project's achievements and outputs delivered in phase one and commentary introducing additional work areas to be addressed which were either identified by the Project Executive or through external evaluation which are necessary to strengthen the Project.

    [Pages 8 – 11]

- ***PART C: Key challenges and proposed solutions***: notable challenges identified during the scoping exercise that will have to be overcome, and the range of solutions to be tested during phases two and three of the Project, when producing lifelong learning application(s) for use with the National Entitlement Card.

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- ***PART D: Project design (phase two)***: conformation of key design elements, highlighting any revisions from the initial bid.

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- ***PART E: Project deliverables***: conformation of (i) the areas within which *smart* applications and services will be developed and implemented and (ii) (a) extending card production, management and issuance models and/or (b) enabling colleges and universities to accept an existing NEC to effectively (and smartly) manage episodes of learning (irrespective of their duration or frequency).

Establishing key concepts

Terminology

During the latter stages of phase one of the Project, partners discussed the notion of developing a *lifelong learning smartcard.* For the avoidance of doubt, the Project is not seeking to introduce yet another smartcard into Scotland's public sector. Project deliverables remain centred on developing both revised business processes and solutions, along with smart applications and services, which delivered through the National Entitlement Card will extend and simplify access to services for life long learners, working within and/or across local authorities, colleges and universities.

Where it is necessary to make the distinction between the National Entitlement Card and Project deliverables concerned with developing lifelong learning through the NEC, the phrase *lifelong learning application(s)* is used.

Use of the NEC within higher and further education

Colleges and universities who issue an NEC directly to their students to manage services and facilities required by students do so through the contract established between the institution and the student once the registration process is completed. In data protection terms the institution remains the data controller. Institutions retain control over the services provided and the management of all aspects of those services. Where learners choose to use their NEC to access services offered outwith a college or university with whom they are registered, their express consent will be required.

PART A: Vision statement

> **"*Better collaboration with schools and between colleges and universities so that provision for learners is more inclusive and the journey through lifelong learning is more seamless*"**
> (Letter of Ministerial Guidance to the Scottish Funding Council for 2009-2012, November 2008, Delivering for Scotland.)

Vision statement

Access to lifelong learning opportunities in Scotland will be more inclusive and the journey made seamless. Administrative barriers between (and across) local authority, college and university provision and outdated business processes, impede access to learning resources and opportunities and will be removed. By the same token a significant range of efficiencies will be secured. Smart(er) applications, innovative models of collaborative and shared service working will emerge. They will continue to develop and will be sustainable. The modest changes introduced to revolutionise service delivery will enable Scotland to be recognised internationally as a leader in lifelong learning.

What, when, where and how?

This (i.e. better collaboration, improved provision, making lifelong learning more seamless) will be achieved by taking an existing national infrastructure i.e. the *National Entitlement Card*, into Scotland's colleges and universities. Extending the use of the NEC beyond all of Scotland's local authorities moving into further and higher education will produce a passport to learning, facilitating seamless access to services and entitlements as people progress through episodes of learning and training.

Taking the NEC into colleges and universities will require some change. The resource requirements required will be relatively modest compared with the considerable impact generated through the use of the NEC to modernise and simplify service delivery. Should it prove necessary to make changes to elements of the NEC infrastructure to maximise the functionality (and smartness) of the card to support lifelong learning application(s) (e.g. the addition of a SQA number or equivalent), any changes will be made through the partnership working arrangements which have been established.

From 2010, by making modest changes to business process and the application of standardised solutions (integrated with student records systems), Scotland's colleges and universities will be equipped to work with the NEC. By partnering with a local authority, and drawing on Project deliverables, institutions will be equipped to produce and issue NECs. Institutions will also be equipped to accept an existing NEC, through which services will be managed. Here, a link will be created between the NEC and the student record (or appropriate back office system) with a unique identifier to manage and provide access to services. Thus, some institutions may opt not to produce smartcards for certain categories of learners, requiring those learners to use their existing NEC. By 2015 eighty percent of Scotland's universities and colleges will work with the NEC.

The cost to the public purse to develop and deploy smart applications and services will be minimal. Return on infrastructure and service investment already made by local authorities will be maximised. Knowledge transfer between the NEC programme, local authorities, colleges and universities will govern the development and release of smart applications and services. This will eliminate duplication and yield a steady stream of smart applications, through which learners and their institutions will benefit. By 2012 colleges and universities will have access to a core suite of smart applications and services: many

of which have already been developed and deployed by local authorities e.g. the '*sQuidcard*' e-purse. The taxpayer, government and the public and voluntary sectors will also draw significant benefit from the efficiency gains secured. New forms of collaborative and shared service arrangements will also be developed, creating additional (and innovative) services which maximise opportunities for learning.

Scenario: 2012, the lifelong learning card in operation

First stage of the journey
During the transition phase before leaving primary and commencing secondary school, pupils can receive a National Entitlement Card (NEC). This is accepted at all public sector service points across Scotland. It is also used extensively by national bodies including Young Scot and SQA, transport providers and commercial retailers. The NEC is a well established, cost effective and proven infrastructure. Secondary pupils are comfortable using the card.

Taking the NEC into colleges and universities
The concept and reach of the NEC have been significantly transformed. Initially it was viewed as a vehicle to simplify and modernise access to the range of public services provided and managed by local authorities. Having recognised the potential to extend the use of the NEC by taking this into Scotland's colleges and universities the initiative was taken to revise existing business processes and to develop a range of smart services and applications which simplify and extend access to lifelong learning opportunities.

Simplifying access to learning services and opportunities
Managing and providing access to public services has been revolutionised. People are no longer required to repeat a registration process each time they wish to access a service to which they are entitled. On applying for a NEC a core set of information (an individuals name, address, date of birth, gender) is gathered and verified. With the individual's consent, this information is held and maintained within a Citizen's Account (a data source used by local authorities which simplifies registration and verification processes through the re-use of core data). This information (with the users consent) can be used again by other local authorities and public sector bodies, including colleges and universities to simplify the process of registering for and securing access to a service.

From 2009, holders of a NEC can through a single, simple process register for and use all of Scotland's libraries. This is another example at a national level where a range of services have been brought together and made available through a single registration process. Subsequently, use of college and university libraries by members of the public has increased significantly. This has contributed to increased interest in and applications for college and university courses where prior to engaging through college or university libraries, the notion of entering further or higher education was not considered an option for many.

New services and opportunities to learn
Managing access to public services across Scotland through a single infrastructure is bringing local authorities, colleges and universities together. Increased levels of partnership working are producing new and innovative learning opportunities, either through collaborative arrangements or shared services. John Wheatley College,

Glasgow City Council and Young Scot have developed an incentive and reward scheme whereby students with high attendance at college benefit from discounted leisure and cultural services offered through Glasgow City. Here, administration savings have paid for the reward/incentive schemes. Other initiatives focus on building and managing multipurpose facilities. Since 2010 the NEC has transformed how student and public services are managed and made available through the Dumfries academic partnership. Stevenson College and Napier University have led the way in developing a joint sports centre, where the NEC is used to provide controlled entry, online booking of facilities, making e-payments. Edinburgh City Council/Transport Scotland offer discounted bus/tram travel to students, when travelling to and from the Napier and Stevenson campuses.

Modernising college and university business processes
Significant cost savings have been secured, where key data elements are drawn down into student records systems either from those encoded within the NEC, or held on central stores e.g. the accompanying Citizen's Account, or the recently developed on-line lifelong learning portfolio (see below). When assessing options for extending the use of the NEC throughout further and higher education, it was identified that the involvement of SQA was essential, leading to SQA numbers being encoded onto the card. This had two direct benefits. Firstly working with SQA, Learning and Teaching Scotland and the UCISA group, a pilot study was undertaken to develop an on-line lifelong learning portfolio. This application extends the Citizens Account model by capturing core data which is required to administer episodes of learning. Learners also have the option of creating and maintaining a record of their learning and their reflections on the learning process. Over time, elements of the lifelong learning portfolio will be used to streamline the process of registering on college and university programmes, improving the learner's experiences while taking substantial administrative cost out of the registration process common to all FE/HE institutions. In effect, creating a portable student record.

Colleges have benefited significantly, as the data capture process involved in registering large volumes of part-time students has been substantially reduced. Use of the NEC has proven to be particularly effective in managing HND/degree articulation programmes. Students have continuation of access to services within and between institutions, registration processes have been simplified. Back office systems do all the work, working with a set of unique identifiers that link the student to his/her student record(s). Efficiency gains enable institutions to re-invest in developing their core services. Expenditure on administrative functions is reduced.

Evaluation
Young Scot, on having conducted a survey with young adults discovered that the introduction of the NEC into FE and HE has opened up a world of opportunities, which have substantially increased learner engagement, as learners at various stages are presented with a suite of services which they can have 'added to their card.' Services now follow people, rather than people having to chase services. In many instances people take up services to which they did not realise they could access. From 2014, levels of engagement with and retention in secondary schools, FE and HE increase noticeably. Scotland's position in key educational league tables begins to improve. Significantly, Scotland's position in league tables charting public sector costs per head drops.

Strengths, weaknesses, opportunities and threats

The merits of progressing into phases two and three, and the remaining challenges associated with Project can be summarised through:

Strengths

- Phase one of the Project (i.e. the scoping exercise) has been highly successful: with the Project partners (representative local authorities, colleges, universities, Young Scot and the NEC programme) concluding the taking the NEC into further and higher education and creating supporting lifelong learning applications delivered through the card is highly desirable and achievable within a modest timescale;
- The NEC is already used extensively by Scotland's secondary school pupils;
- The Project has established that lifelong learning provision in Scotland can be joined up, at relatively modest cost by taking an existing national infrastructure (the National Entitlement Card) into colleges and universities;
- The Project has created knowledge transfer models that will reduce the development and implementation costs of the smart applications and services to be delivered through the NEC. Solutions currently deployed across Scotland's local authorities being made available to colleges and universities;
- "The Project has the potential for very considerable impact at a very modest cost" (Inter-ed Ltd, 2008).

Weaknesses

- To join up lifelong learning services through a single smartcard accepted by a range of service providers, it is likely that institutional branding will have to be surrendered. In terms of validating access to services and entitlements, institutions will have to rely on electronic means i.e. reference to back office systems, as opposed to visual checks. This level of change may prove challenging.

Opportunities

- By making modest changes to the NEC infrastructure and college and university business processes, the NEC can be used to join-up lifelong learning provision;
- Access to public services across local authorities, colleges and universities will be simplified and extended – thus improving learning opportunities and the quality of the student experience;
- Changing business processes to work with the NEC, and the use of the card itself will streamline registration processes while also enhancing data quality across the further and higher education sectors, with modest changes made to student records systems. Standardised solutions will be made available through the Project. Proof of concept has been achieved;
- The NEC and its supporting lifelong learning applications will give Scotland's colleges and universities a competitive edge in attracting international students. Provision of a high level of joined-up services will ease the transition into living and studying in Scotland.

Threats

- The Project is misunderstood and viewed as a glorified matriculation card exercise;
- The Project is misunderstood to mean *yet* another new card is being introduced in Scotland, rather than creating and delivering applications that make it easier to provide and manage access to services which support lifelong learning through the existing NEC scheme;
- The reputation of further and higher education becomes damaged where student expectations of seamless access to smart services are not met. The NEC is used

extensively by secondary school pupils across Scotland to access a range of services. Failure to provide a seamless continuation of smart services/applications through the NEC infrastructure for secondary school pupils entering colleges or universities will be seen as a degradation of service.

PART B: Review of phase one – extending the use of the NEC throughout Scotland's universities and colleges

The Scottish Funding Council awarded £93,500 to a Project consortia led by University of Abertay Dundee to conduct a scoping exercise on extending the use of the National Entitlement Card (NEC) infrastructure throughout Scotland's universities and colleges for the purpose of extending and simplifying access to public services for lifelong learners.

The funding part resourced the first phase of a planned three phase Project, with partners contributing £32,500. Following the successful completion of the scoping exercise i.e. the outcomes achieved (and the manner of their delivery) and the significant opportunities now available to join-up and add value to lifelong learning, building on the Project's infrastructure, the Project consortia is seeking funding to advance phases two and three. This position is endorsed by the conclusions of the Project's evaluation: "*given the strength of phase 1 of this Project, there are very strong grounds for moving forward to the next phases of this Project as soon as practicable.*" (Inter-ed Ltd, 2008)

Substantive points

1. The NEC represents a firmly established, interoperable smartcard platform that works at a national level. This infrastructure *now* presents significant opportunities for Scotland's universities, colleges and local authorities to substantially enhance services for life-long learning, through service modernisation and/or higher levels of collaborative working.

2. The Project's aims and objectives remain focused towards achieving a core set of deliverables. These are centred on: extending and simplifying access to lifelong learning opportunities across secondary, further and tertiary education throughout Scotland, through a single, seamless infrastructure.

3. The Project has advanced rapidly from a rhetoric and advocacy stage (i.e. discussing and exploring how life long learning can be enhanced through the adoption of the NEC infrastructure) through to substantive, quantifiable delivery i.e. creation of Project mechanisms capable of delivering sustainable Project outcomes. This is confirmed by the conclusion of the Project evaluation:
   - "[As a result of the scoping exercise, phase one] *there is evidence and also a strong belief amongst Project partners that the use of the National Entitlement Card by educational institutions will advanced the cause of lifelong learning in Scotland*";
   - "*Although there are some real efficiencies that may be achieved by educational institutions, the principal measure of success is likely to be effectiveness. Through the National Entitlement Card, colleges and universities will be able to add considerable value to their lifelong learning provision.*"

4. External Project evaluation of phase one has also concluded that the Project has been managed effectively, successfully delivering its intended Project outcomes on time, to the required quality and within budget.

5. Project deliverables from phase one included:
   - **Card production, management and issuance processes and supporting infrastructure**: i.e. the means to produce and issue students with a National Entitlement Card capable of accessing university, local authority and national services, in a manner which is capable of being extended across further and

higher education institutions. This includes documented business processes, technical guidance, data protection and proof of age solutions and an integrated software application which automates the card production and management business processes through the SITS student records system;

- **Proof of concept**: i.e. 1712 student NEC cards produced and issued during registration (new students), 1944 cards extracted for production (returning students);
- **Applications development**: access to university and local authority library services and photocopying and printing from a single card;
- **Information and discount services**, partnering with Young Scot;
- **External evaluation**;
- **Project bid, endorsed by all Project partners for phases two and three**.

6. The Project has also developed effective **cross sectoral partnership working**. Wide ranging networks involving a university, college and partnering local authority have been established in Angus, Dumfries & Galloway, Dundee, Edinburgh and Glasgow. National partners include: NEC Programme Office, Young Scot, Scotland's Colleges, the Scottish Library Information Council, with Universities Scotland undertaking a watching brief. Significantly, the Project has also created additional pathways which will enable Scotland's universities and colleges to work more effectively and inclusively with local authorities. This arrangement creates additional capacity to add value to lifelong learning for citizens, while also minimising development and implementation costs.

7. The Project has already attracted additional partners, as evidenced by the inclusion of Stevenson College and recently Napier University and Edinburgh City Council. It is anticipated that **further partners will be attracted to the Project** during its next phase. For example the Project evaluation has recommended the involvement of the Scottish Qualifications Authority.

8. The Project **provides value for money**: creating sustainable and repeatable models capable of extending the adoption and implementation of an existing national infrastructure (NEC) throughout Scotland's universities and colleges to enhance lifelong learning:
- The Project has no 'sleeping partners.' In the next phase, each participating university and college is required to develop 'smart' applications and/or services to be delivered through the NEC infrastructure: releasing knowledge and expertise to the Project to extend application development at minimal cost to Scotland's universities and colleges;
- Project partners will support other colleges and/or universities (locally) providing the necessary levels of support to achieve a Scotland wide implementation, following the completion of phases two and three of the Project. (See PART F);
- Project partners have already committed in principle to developing in phase two '*smart*' applications related to access control, cashless catering, attendance monitoring/reward systems and integrated transport;
- Through the partnership with Young Scot, providing youth information during the transition from secondary to further or higher education, plus continuation of other services including the PASS voluntary proof of age scheme and young person's discounts;
- Working in partnership with Young Scot, using the NEC as part of a package to welcome and assist international students to integrate seamlessly into living and studying in Scotland;
- A legacy of the Project will be the substantial infrastructure created, which is capable of additional development beyond the Project's lifetime to add value to

learners and the wide range of institutions across Scotland which support learning.

9. The Project Executive, supported by stakeholder feedback, external evaluation and advice from the Project Manager have identified a number of areas to be addressed during subsequent Project stages, notably:

    - Exploring in more depth and resolving card issuance and management (including branding) models which accommodate the requirements of lifelong learners who are required to engage flexibly with one, or a range of institutions/service providers, which maximise the 'smartness' and longevity of the Card, while also providing seamless access to services for all users.

10. The Project bid (phases two and three) incorporates the findings and recommendations from the Project evaluation and stakeholder feedback secured from phase one, notably building on the core concept of entitlements to developing the NEC in a manner that advances *lifelong learning opportunities across the public sector*.

11. Should the Project receive funding to enable progression to the remaining phases, anticipated Project outcomes, other than the development of 'smart' applications and services, include:

    - **Adoption of the NEC by Scotland's colleges and universities in a manner which is sustainable and repeatable**, that simplifies, opens up and extends access to learning opportunities, throughout Scotland's extensive range of learning providers. This could include creation of a '*learning passport*' where core information e.g. SQA number (or equivalent) and allied data-sets, learning account details, follows learners;
    - **Joined-up lifelong learning services**, breaking down traditional barriers as bureaucracy is removed and new and innovative service arrangements generated through shared and/or collaborative working;
    - **Sustainable and organic development of the Project outcomes**, through the exploitation and development of an existing infrastructure and the partnership arrangements developed and extended both throughout and beyond the Project's lifetime;
    - **Enhanced student information network** (i.e. extending the range of information available to student support services in universities and colleges by extending the Young Scot partnership to source information and advice already provided to young people through existing channels);
    - **Effective cross-sectoral partnership working**. A range of local partnership arrangements between HE and FE institutions, their local authorities, and national agencies (Young Scot, Scottish Library and Information Council) that continue to add services and value to lifelong learning across Scotland;
    - **International students' services**. i.e. Prior to arrival in Scotland, international students will have the opportunity to register for a suite of services offered by a range of public and national bodies in addition to those offered by their college or university. Thus, having received their NEC following registration at college/university students will be more ready to engage with learning and support services.
    - **Improved business processes and data cleansing** i.e. registration processes will be streamlined (including data capture) and the reliability of core data improved.
    - **Making significant contributions to securing national policy initiatives**, notably but not exclusively "*widening access and participation…better collaboration with schools and between colleges and universities so that provision for learners is more inclusive and the journey through lifelong learning more*

seamless." (Letter of Ministerial Guidance to the Scottish Funding Council for 2009-12, November 2008 Delivering for Scotland, p.5.).

PART C: Key challenges and proposed solutions

Overview

A number of challenges require to be overcome in order to extend the use of the NEC i.e. taking this into Scotland's colleges and universities from its local authority base and to implement a supporting range of lifelong learning applications to be delivered through the card. A range of these challenges have been presented earlier, as part of the SWOT analysis (PART A). Presented here, is the key set of key challenges facing the Project and proposed solutions

- To join up lifelong learning services through a single smartcard (NEC), it is likely that institutional branding will have to be surrendered. It will not be smart, nor would it be acceptable to have to reissue learners with a NEC each time they are required to engage with an institution (or indeed engage with a number of institutions in parallel). In terms of validating access to services and entitlements, institutions will have to rely on electronic means i.e. reference to back office systems, as opposed to visual checks. This level of change may prove challenging.

- To ensure that services and entitlements follow people as they progress on their lifelong learning journey it will be necessary to use an (electronic) identifier which maintains a link between the individual and all the service providers that person engages with. In phase one, the Project team decided to utilise the unique the 16 digit smartcard number. This identifier is linked to a learner's record within a student record system (SITS being used in the scoping exercise). Smartcard numbers were generated in advance (and held within a single source i.e. the student record). The smartcard number is then used to populate a range of back office systems. While this approach is sufficient in terms of a college or university producing a NEC with a partnering local authority, in terms of further and higher education institutions accepting an existing NEC and using this card's number from which access to services and facilities will be managed - the extensibility of the piloted approach will have to be re-assessed.

- Working towards introducing and extending the use of the NEC throughout colleges and universities requires re-visiting and adapting some established working processes. Revisiting the business processes associated with registering learners for and verifying entitlement their to services and facilities, provides an opportunity to give serious consideration for:

    a. Adapting models for data capture, verification and re-use that have been successfully developed and implemented by local authorities for use throughout the further and higher education sectors to improve student registration process consistent with joining up and extending access to lifelong learning opportunities i.e. **developing the concept of the portable student record**

    b. As suggested in the Project evaluation - review options for creating an e-learning portfolio which supports and motivates people as they embark on their own lifelong learning journey i.e. **developing an e-learning portfolio**

- The scenario presented in PART A suggests how an online lifelong learning portfolio could provide a range of benefits to learners and institutions, while the use of information sourced from a portable student record (and/or that encoded on the NEC; name, address, date of birth, potentially SQA number or equivalent) could create

significant efficiencies where core data can be re-used to simplify registration and data capture processes. The notion of producing and maintaining the online learning portfolio and/or the portable student record emerged as a potential opportunity at the latter stages of phase one. The feasibility of producing these outcomes will have to be assessed and a determination reached as to the extent to which core data can be re-used to supplement student registration processes will be made, at an early stage within phase two of the Project.

Proposed solutions

A set of potential solutions have been identified. These will be developed, tested and implemented throughout the partnering institutions during phase two. Fully developed sector wide solutions will then be available, and extended to the remainder of Scotland's colleges and universities during phase three of the Project. Proposed solutions are included here to provide confidence that the key challenges facing the Project are not insurmountable or impractical.

National Entitlement Card and institutional branding

1. Visual inspection of student/staff cards is commonly undertaken to control access to facilities and services. As acknowledged throughout the continuation bid: as learners move between; or work across; different institutions should institutional branding be required replacement cards would have to be produced and issued. Where learners engage with multiple institutions at the same time it would not be smart to issue two National Entitlement Cards, each with a different smartcard number and banding. This outcome is not acceptable to the Project Executive.

2. Verification of a card holder's entitlement to access facilities and services can be managed effectively through a number of electronic routes i.e.:

   - Cross reference between the card number and a student records system and/or the back office systems deployed to manage services e.g. access control, library borrowing etc.

3. Extending electronic methods of verification will remove existing requirements to produce student cards which contain institutional branding. To achieve this, the installation of card readers and the ability to add card numbers of external users into the back office systems which manage access to services will have to be resourced.

4. The use of portable devices (by security and janitorial staff) to establish the validity of a smartcard to confirm access to facilities and services in the absence of institutional branding will also be investigated. This will include a review of portable card readers, and the use of other technologies e.g. mobile phone/SMS to transmit card details to a point of reference and to receive confirmation of the card holder's entitlement to a facility/service.

5. It may not be necessary to install card readers at all service points. e.g. Security staff may radio, or SMS a smartcard number to a central point to establish if the card and the card holder is entitled to access a facility and/or service.

6. The Project has established a network of colleges, universities and a partnering local authority in Angus, Dumfries & Galloway, Dundee, Edinburgh and Glasgow. The possibility of developing branding to recognise access services within geographic regions as opposed to particular institutions within a region will be assessed. Should it prove necessary to add branding to cards, this may prove a workable solution.

7. The NEC programme office have signalled that producing National Entitlement Cards with universal branding will address cross-boundary issues currently faced by local authorities. This will also simplify the process of card production.

Accepting existing NEC to access services offered by colleges and universities

8. The ability for colleges and universities to receive an existing NEC to manage access to facilities and services will be tested at an early stage within phase two. Opening up access to library borrowing facilities will be used as a pilot study.

9. Working with the Scottish Confederation of University and Research Libraries and Scotland's colleges, a pilot group of institutions will be asked to wave any external fees for borrowing, where persons with a NEC card will be permitted use of the library as external borrowers.

10. This will be a meaningful test-bed: extending access to college and university facilities to support lifelong learning, while enabling institutions who do not currently work with the NEC to do so.

11. The Project will make available smartcard readers and facilities to draw down the necessary user details either from the smartcard and/or the citizen's account to automate the process of creating a borrower record within library management systems.

12. This will provide proof of concept that a unique identifier within the smartcard can be received by a college and university and transferred into a back office system to manage services. During phase two, the extension of this process i.e. transfer of unique identifiers throughout back office systems to manage access to services will be developed.

13. The Project Executive will submit a report to SFC, early within phase two providing clearer direction as to the nature of the solution(s) to this challenge.

National Entitlement Card: unique identifier

14. Many Project partners have mooted the idea that the encoding the SQA number into the smartcard could prove to be a workable solution. Whatever numbering solution is devised, at this time it is suggested that it will be highly desirable to maintain the identifier within the Citizen's Account, creating a permanent link between the individual and any lifelong learning cards issued. Should the SQA number emerge as the preferred solution, the Project will require the necessary approvals and support from SQA.

Perceptions of a national identify card scheme

15. When initially introduced to the idea of using the National Entitlement Card within universities and colleges, some colleagues assume that the NEC either forms part of a national ID card scheme, or will at some stage evolve into becoming part of an ID card scheme.

16. Questions concerning civil liberties and data protection do not present any particular challenges to the Project as answers to these important questions are readily available. However, it is important that perceptions are managed effectively where the need arises.

17. To support the extension of the use of the NEC throughout Scotland's colleges and universities it is important to continue to provide reassurance that civil liberties are protected and personal information is used solely with a view to managing access to services.

18. Independent Project evaluation (see APPENDIX B) has identified that the NEC is not, nor is capable of developing into a national ID card scheme.

19. Beyond the Project evaluation, additional documentation is now available which provides evidence of the protections in place.

20. The National Entitlement Card Board has circulated an information note to all of Scotland's local authorities (January 2009). Responses are provided on a point by point basis to both issues raised by the pressure group NO2ID and to a range of concerns reported through the media with respect to NEC scheme. In the main these relate to data protection and civil liberties. This information note is a comprehensive document, which clearly demonstrates the range of safeguards that have been put in place to protect personal information and civil liberties, while also addressing a number of incorrect facts or misrepresentations regarding the NEC scheme. The information note is presented in APPENDIX C.

21. Until stakeholders become more familiar with the Project and the nature and operation of the smartcard, it is natural that some concerns may arise about identity and data protection.

22. The Project team will continue to engage fully with stakeholders to manage this perception, in part making use of the sources cited above.

PART D: Project design (phase two)

Background: initial resource bid

On 24 January 2008 the Scottish Funding Council (SFC) received a detailed application to resource phase one of a planned three phase Project i.e. *Shared services for life long learners through the National Entitlement Card*. The initial application provided:

- A full description of the Project, including a statement of *purpose* and *context*;
- Fully developed Project aim and supporting objectives;
- Project outcomes;
- Project management arrangements. This included a statement of phased delivery over three distinct stages from February 2008 until December 2010, governance arrangements, application of elements of the Project management methodology *PRINCE2*;
- Evaluation mechanisms;
- An initial assessment of Project risks and allied controls;
- An analysis of the Project's alignment with national policy initiatives;
- Budget and value for money statement.

The Project Executive holds the view that the Project design elements described in the phase one bid are, and remain fit for purpose in terms of supporting the Project through phases two and three. Therefore, in submitting this (continuation) bid this application draws from and builds on elements of the Project design as presented in the initial application, and the Project evaluation. In order to highlight key elements of the Project design and outcomes, this application seeks to minimise the duplication of information which was presented in the initial bid. Enclosed is a statement of key points, pertinent to the Project's design and execution during phases two and three. These either reaffirm core Project values/themes or highlight any notable revisions that were identified during phase one or through the Project's evaluation.

Project design: statement of core principles

Purpose and context:

1. The outcomes of the scoping exercise have not introduced any circumstances which would necessitate a change in the Project's purpose from that stated in the initial bid. Indeed, the outcome of the Project evaluation has reaffirmed the view of Project partners and stakeholders as to the ability of the Project outputs to improve and extend lifelong learning provision in Scotland, capitalising on existing infrastructure investment to modernise and extend service provision through the National Entitlement Card. The Project remains firmly focused on **extending and simplifying access to public services across Scotland for lifelong learners**;

2. Context: the kernel of the Project remains centred on providing seamless access to a suite of lifelong learning services, provided by Scotland's universities, colleges, local authorities and other agencies such as Young Scot, through an efficient and effective verification model. This will minimise the number of service points which the learner would otherwise have to engage with, in order to access learning, information & support and other developmental opportunities to which they are entitled;

3. The National Entitlement Card (NEC) infrastructure has demonstrated its capacity to generate improvements in service design and delivery in Scotland's local authorities and now her universities and colleges that directly benefit learners. As a first step, the

Project explored the development of card issuance and management models triggered by the enrolment of a learner with a university or college. However, should the livery of the card be branded in a manner that aligns the learner with a single institution, this could introduce unnecessary barriers limiting the '*smartness*' of the card where multiple cards have to be issued when learners leave or transfer between institutions. In moving forward, ***during phase two the Project will develop solutions centred on working with a National Entitlement Card and accompanying lifelong learning applications, eliminating (or at least minimising) the limitations introduced by applying institutional specific branding***.

Project outcomes:

4. Project outcomes that were anticipated during the Project's inception and presented in the initial bid remain. The results of the scoping exercise have produced a most compelling case, supported by further evidence from the Project evaluation for extending the use of and developing the National Entitlement Card infrastructure throughout universities, colleges and local authorities to advance lifelong learning;

5. Two ancillary outcomes, not anticipated by the Project team emerged during the scoping exercise. These concerned improving the quality of the student record and improved management of personal information. The benefits allied to these outcomes were generated through implementing changes to business processes necessary to produce National Entitlement Cards for students. Similar levels of improvement can be readily secured (where required) throughout other institutions through the adoption of the business processes and supporting tools produced by this Project, at minimal cost compared against the anticipated gains:

   a. Quality of the student record: the NEC infrastructure requires data of the highest quality to produce smartcards. Prior to an HE/FE institution submitting data for card production and management, the data that is required to be extracted from the student record is filtered through a set of business (validation) rules. Erroneous (or missing) values in the student record are identified (e.g. a date of birth suggesting that a student is 5 years old) as exemptions for further investigation, and where necessary prompting correction of the student record (at source). The Project has produced automated tools which integrate with the student records system SITS. During phase two these solutions will be extended to work with other student records systems in use across the HE/FE sectors;

   b. Data protection: a number of partnering institutions have developed a greater understanding of role of the Data Protection Act 1998 and the actions necessary to improve the management of personal information, within the standards required by the Act. Indeed, members of the Project Executive have reported that they have used the data protection outputs of the Project as a basis to generate improvement in their institutions. The Project has also highlighted the requirement to secure personal data when this is transferred third parties e.g. the use of Secure File Transfer Protocol as opposed to e-mail, generating further awareness of best practice and levels of improvement.

6. Beyond reviewing the outcomes of the Project and methods of delivery, the evaluation was also undertaken with a brief to "*assess where additional opportunities consistent with the Project's vision and objectives may exist.*" The following outcomes, outwith the initial Project design were identified (Inter-ed Ltd, 2008):

a. **Branding** i.e. To identify national branding solutions which maximise the '*smartness*' of the NEC to facilitate access to a range of services from a broad constituency i.e. eliminating boundary issues introduced through localised branding: "*one possibility may be to have a single lifelong learner brand common to all entitlement cards*";

b. Extending the functionality of the NEC to support lifelong learning applications in colleges and universities to facilitate secure access to other data and services e.g. SQA number;

c. **Short episodes of learning** i.e. developing greater clarity as to how the NEC can be used to manage access to and provide support to learners engaging with universities and colleges for short episodes.

Alignment with national policy initiatives*:*

7. The initial Project bid demonstrated alignment between planned Project outcomes and objectives and priority actions from the Scottish Funding Council's Corporate Plan 2006-09 "*Learning and innovation*: *helping to deliver Scotland's strategy for the future.*" i.e.

   a. Aim 5, Objective 1, priority actions 42 and 43;
   b. Aim 5, Objective 2, priority action 45;
   c. Aim 7, Objective 3, priority action 66;
   d. Aim 7, Objective 4, priority action 70.

8. The Project outputs are, and remain capable of producing and realising outcomes which are aligned with key national policy initiatives. This is evidenced in the strong level of alignment between the Project's design and Projected outputs and key statements within the ***Letter of Ministerial Guidance to the Scottish Funding Council 2009-12, 18 November 2008***. The Project Executive (supported by the Project Evaluation) are of the belief that the Project is capable of supporting and enhancing the following *Ministerial guidance* areas:

   a. "*New and flexible approaches to curriculum and learning delivery are provided*" (*Letter of Ministerial Guidance…* Introduction: policy and environment p.3*)*;
   b. "*Ethos of partnership working continues to be developed…*" (*Letter of Ministerial Guidance…* Partnership and Collaboration p.4*)*;
   c. "*Widening access and progression: improving how our colleges and universities assist learners to access and progress through the education system, with a particular focus on better collaboration with schools and between colleges and universities so that provision for learners is more inclusive and the journey through lifelong learning is seamless*" (*Letter of Ministerial Guidance…* Delivering for Scotland p.5*)*;
   d. "*Collaborative activity across institutional boundaries*" (*Letter of Ministerial Guidance…* Delivering for Scotland p.6*.*

9. In securing national policy initiatives, the partnership working arrangements established across colleges, universities, local authorities and national bodies including the National Entitlement Card and Young Scot through this Project should not be underestimated. This has produced a powerful platform capable of producing additional outcomes which are capable of supporting and sustaining national policy initiatives both within and outwith this Project;

10. Significantly, given the nature of the Project (incorporating and developing existing national infrastructure) its outputs are (and will be) sustainable and capable of generating further developments (i.e. in extending and simplifying access to lifelong learning) where adopters of the NEC extend both its application and the partnership working arrangements across HE, FE and local authorities, following the cessation of funding. The Project's outputs are capable of supporting the delivery of core policy initiatives well beyond its funded lifetime.

Project management*:*

11. The Project evaluation found that: "*the Project management of phase 1 has been robust and effective and is a key reason for effective delivery thus far*" (Inter-ed Ltd., 2008) The Project management and governance arrangements forwarded in the initial Project bid will continue to be applied during the remaining phases of the Project, in particular the application of selected elements of PRINCE2;

12. To provide greater levels of clarity and control, rather than working with and reporting against a single Project plan, multiple Project plans are produced and applied for the following streams:

   a. **Card production, management, issuance and acceptance models**;
   b. **'*Smart*' applications and services development**.

13. During phase two, a higher level of involvement and consultation with user groups and customers will take place to ensure that Project deliverables (notably the '*smart*' applications and services, and student information services) are and remain fit for purpose. The Project Executive will be expanded to include student (i.e. learner) participation.

14. Project Evaluation identified that the strong partnership working relationships established by the scoping exercise present considerable opportunities to extend and further develop reciprocal working arrangements. Reciprocal working will feature as a core element of Project design. This will further enhance the success of the Project in terms of the quality of the outputs and the value for money in their creation and dissemination.

15. The Project will continue to be subject to external evaluation, reporting to the Project Executive and Scottish Funding Council. External evaluation will assess the ability of Project outcomes to produce:

   a. Truly '*smart*' business processes capable of addressing the range of card production, management and issuance models (with a single interoperable smartcard) necessary to support the diverse requirements of lifelong learners and the institutions which provide services to learners. This will take place as soon as practicably possible within phase two;

   b. Sustainable '*smart*' applications and service developments through the NEC infrastructure and collaborative working arrangements, in a manner which reduces development and implementation costs, both during and outwith the Project's funding arrangements.

Project risks:

16. The Project management arrangements applied during phase one proved to be effective in addressing risks typically associated with securing delivery of Project deliverables on time, to the required quality and within budget (Inter-ed Ltd., 2008). As

noted above the Project management and governance arrangements applied during phase one will continue (subject to the amendments identified to control Project level risks;

17. The Project identified a risk allied with negative perceptions towards the NEC emerging i.e. the emergence of a national identity card by the '*backdoor*'. The Project evaluation (Inter-ed Ltd., 2008) found that:

   a. "*The National Entitlement Card is not a government identity card*";

   b. "*The protocols and design features built into the National Entitlement Card, and the intentions of all participating partners, are the principal safeguards against the National Entitlement Card developing into an identity card.*"

18. The Project team will continue to work to ensure the scheme's success through addressing this particular concern;

19. A revised assessment of the main Project risks are presented below:

Risk	Degree of risk	Controls
Introduction of card production, management and issuance models which limit the '*smartness*' and transferability of the NEC (notably, those connected with supporting episodes of short learning.)	Low	The Project's design for phases two and three have been revised, to address a key finding of the Project evaluation (Inter-ed Ltd., 2008) i.e. to develop outcomes which maximise lifelong learning opportunities through a single interoperable smartcard acceptable across a range of service providers without the requirement to undertake a card production and re-issuance exercise each time learner presents/enrolees at a (different) institution.
Loss of key Project staff.	Medium	It is Projected that the remaining phases of the Project will run over two years. Given the timescale, it is not unreasonable to suggest that key Project team staff for whatever reason may leave. To ensure consistency in Project delivery, Project documentation will be rigorously maintained to high standards to facilitate effective knowledge transfer between colleagues should any staffing changes become necessary. Contractual notice periods will be weighted towards knowledge transfer activities above completion of Project tasks.
Any significant Project failure at the National Entitlement Card.	Low	The NEC is used to deliver services to citizens across Scotland's 32 local authorities. Service includes management of entitlements for disabled persons, concessionary travel, school meals etc. As such significant failure in the card infrastructure is likely to be low given that the

		NEC has become mission critical device. Continuous testing and development based on feedback and discussions with users', local authorities and the National Entitlement Card Project team should ensure that any difficulties identified are not carried over into implementations within universities and colleges.
Scepticism within the universities and colleges surrounding data-protection and perceptions of a "*big brother*" society allied with the delivery of services via a national smartcard, leading to a rejection of the NEC as a mechanism to access public services.	Low	The Project team will circulate the results of the Project evaluation which found that the NEC is not, nor is it capable of transforming into a national identity card. The Project team will actively work with universities, colleges and local authorities to both raise the issue in open debate and to fully air the protections build into to safeguard data and privacy. In parallel the Project team will illustrate the freedoms through increased access to services which the Project will deliver.

Project monitoring and evaluation:

20. The Project processes and outcomes will continue to be monitored and evaluated internally (through the Project Management Group and Executive) and externally through commissioned independent evaluation in a manner consistent with that undertaken in phase one;

21. As noted earlier (see Project Management, no.15) two independent evaluation exercises will be commissioned to review Project outputs allied to (i) the development of card production, issuance, management and acceptance models which maximise the '*smartness*' of the NEC and (ii) the development of sustainable '*smart*' applications services.

Dissemination of Project outcomes:

22. The arrangements for disseminating Project outcomes to the higher and further education sectors detailed in the initial bid, will continue to be utilised during phases two and three;

23. As noted earlier (Project Management, point 13) greater emphasis will be placed on engaging with learners and the groups which represent their interests to ensure that Project outcomes are and remain for purpose. While specific mechanisms for engaging with user groups have yet to be established, at this time the Project is seeking to present at the "*Student participation in quality Scotland*" event, March 2009.

Project timescale:

24. Phase two – February 2009 – December 2010;

25. Phase three – February 2011 – May 2011.

PART E: Project deliverables

Phase two – February 2009 – December 2010

The Project Executive remains committed to and are confident of securing the delivery of the following outputs during the second phase of the Project, when extending the use of the National Entitlement Card, throughout Scotland's universities and colleges to support lifelong learning:

1. Scalable and sustainable introduction of the NEC through Scotland's further and higher education sectors;

2. Enhanced business processes;

3. Smart applications and services, delivered through the National Entitlement Card;

4. Enhanced shared services/collaborative working models, where institutions provide access to lifelong learning services and opportunities through the NEC.

Project deliverable	Outcomes
1. Scalable and sustainable introduction of the NEC throughout Scotland's further and higher education sectors	• Simple card production, management (inc. branding) issuance and acceptance models consistent with extending the use of the NEC throughout Scotland's colleges and universities, implemented across all Project partners; • Development and standardisation of card management utilities for use with the SITS and other student records management systems common to colleges and universities; • Partner wide implementation of the card management and production utilities developed for use with the student records systems; • Revised card branding to address the limitations of institution specific branding; • Should any changes to existing arrangements be required: identification and adoption of a suitable (electronic) identifier, suitably maintained within the required range of management information systems; • Secure access to facilities and services where institutional branding is no longer relied upon to authenticate users i.e. making available solutions that allow for the timely and secure verification a card holder's entitlement to facilities and services through a cross reference against the card number and student record system or appropriate back office system(s); • Making available solutions which enable colleges and universities to manage and extend access to selected facilities and services, to external users through existing National Entitlement Cards; • Evaluation of the proposed solutions prior to implementation across partnering institutions;

Project deliverable	Outcomes
	• Documentation libraries, including developed applications – to support further implementation beyond the Project partners during phase 3 and beyond; • Development of a training and support network which will enable partner institutions who implement Project deliverables during phase 2, to assist other colleges and universities within their respective geographical areas to implement the NEC and smart applications and services developed during phase three and beyond.
2. Enhanced business processes	• Creation of internal efficiencies through re-engineering core business processes concerned with the registration for and access to services, required by using a single smartcard; • Establishing the feasibility of developing and deploying a re-usable student record throughout a learner's lifetime by building on the concept of the "Citizens Account" model to improve the efficiency of registration at colleges and universities. Producing and implementing solutions identified following the conclusion of the feasibility study; • Providing tools which enable colleges and universities to offer students access to a range of services offered across the public sector, through the NEC. These will facilitate timely access to a full range of learner and public services on registration, including services for international students;
3. Smart applications and services	Development and implementation of a core programme of 'smart' applications and services, identified (through external evaluation and from Project partners) to be of benefit to lifelong learners within the following categories: a. Access control (buildings and services); b. Cashless services (including the introduction of e-purse services utilising the '*sQuidcard'* infrastructure being deployed nationally by the NEC programme); c. Internationalisation i.e. giving international students every opportunity to (pre)-register for a range of services capable of supporting integration into living and studying in Scotland and seamlessly making these available through the Student National Entitlement Card on their arrival, extending an existing Scottish Government/Young Scot Project); d. Loyalty and reward schemes; e. Shared services (maximising a single, interoperable smartcard standard (NEC) and its

Project deliverable	Outcomes
	supporting national infrastructure); f. Transport i.e. managing access to; g. Young Scot information services (i.e. extending the range of information available to student support services in universities and colleges by extending the Young Scot partnership to source information and advice already provided to young people through existing channels). Development of knowledge exchange network to drive efficient and effective sector wide implementation of smart services beyond the institution(s) charged within initial application development and implementation.
4. Enhanced shared services/collaborative working models	• Investigation and development of self-sustainable and repeatable models of shared service delivery and collaborative working across colleges, universities and local authorities where the NEC is used to manage access to services.

Developing Project milestones

The Project Executive will submit to SFC, April/May 2009 a report which details:

- How the NEC would operate across Scotland's universities, colleges and local authorities - commenting on the specific solutions to be delivered to address the challenges discussed in PART C of this (continuation) bid;

- Specific smart applications and services to be delivered by each lead partner;

- Revised Project resource allocations, following conformation of the smart application and service areas to be developed;

- Project plan (detailing all significant milestones over the two years of phase two);

- Project quality control and evaluation mechanisms, including the Project Risk Register.

Additional commentary

Implementing the NEC: Student record systems (development)

Partnering universities and colleges will develop the capacity to issue NECs and/or work with existing National Entitlement Cards to manage and provide access to services with identified student populations:

- Application development i.e. card production and management application developed in phase one to integrate with the student records system SITS will be extended to work with student records/information systems deployed across non SITS institutions;

- Standardisation of the SITS application i.e. given the variances in SITS deployment across institutions, some standardisation work is required to be conducted on the existing card production and management scripts to ease implementation of this solution across other universities and colleges.

Registration for services

A key Project outcome is the ability for students and other learners to access services offered by a range of local, regional and national providers, initially through existing registration process. Seamless mechanisms which enable learners to register for services outwith normal registration periods will also be developed during phase two.

Two initial pilot areas to develop and test processes concerning registration for services provided by multiple providers are proposed for phase two. These will involve:

- International students i.e. identifying and presenting students with a suite of services during the registration process, which will subsequently be accessible following issuance of the NEC;

- Scotland's libraries i.e. providing both registering students and existing NEC card holders with the option to join a range of university, college and local authority libraries through a single registration process. This will test both the ability for universities and colleges to make available to learners a wider range of services provided outwith the host institution, while also testing the ability of universities and colleges to accept existing NEC card holders to access their respective library services.

Phase three – February 2011 – May 2011

Partnering universities and colleges will develop the necessary materials and knowledge management/exchange networks necessary to support implementation of the NEC to colleges and universities across Scotland, in a consistent and effective manner. PART F of this document presents a high level view of how the NEC will be implemented throughout the further and higher education sectors. During phase three of the Project, partners will:

- Complete the development of an infrastructure to support a programme of knowledge transfer, capacity building and targeted support within the further and higher sectors, to assist universities and colleges (working with a partnering local authority) to implement the National Entitlement Card (and associated enhanced business processes), and the core suite of '*smart*' applications and services developed and implemented throughout phase two;

- To extend the implementation and use of the lifelong learning card throughout Scotland's colleges and universities beyond those institutions involved in, addition to the documentation (revised business processed etc.) already discussed, card management utilities and smart applications and services developed, training materials will be developed, and other levels of support identified and made available to staff from the phase two partners to extend the NEC into neighbouring institutions.

- Where appropriate begin to extend the across the higher and further education and local authority sectors the shared service and collaborative working models investigated and developed throughout the Project's lifetime;

PART F: Implementation plan – extending the National Entitlement Card and lifelong learning applications through colleges and universities

Overview

As noted in PART E, phase three of the Project is concerned with establishing effective knowledge transfer mechanisms. These will provide a platform from which the Project deliverables produced and tested during phase two will be successfully extended throughout Scotland's colleges and universities. PART F, presents a high level view of how the NEC will be extended beyond the Project partners, across Scotland's colleges and universities.

Post Project implementation

1. The Project's fundamental purpose is to improve and extend opportunities for lifelong learning through the development of a seamless smartcard infrastructure. To achieve this end, where possible *all* Project outputs are designed to be transferable.

2. To support an implementation which can be achieved in a relatively modest timescale, at minimal cost, during phase two the Project will produce and make available:

    a. A single document (i.e. end-to-end manual) providing the necessary business processes, data schema, data-protection/consent processes and proformas required of colleges and universities to work with a partnering local authority to produce, issue and manage (or receive) an existing lifelong learning card;

    b. Utilities, which integrate with student records systems to manage the business processes allied with card production, management, issuance, replacements and to accept an existing smartcard to provide access to services. This will also include mechanisms to capture and process images. These items will be an extension of the solutions produced and tested during phase one;

    c. Knowledge transfer networks within Angus, Dumfries & Galloway, Dundee, Edinburgh and Glasgow which are capable of supporting other colleges and universities within these areas to implement the Project solutions.

    d. A suite of core smart applications and services;

    e. Publicity, marketing and communications materials;

    f. Training materials, to equip partners implementing the NEC in phase two to assist local colleges and universities to work with the Project outputs and do the same.

3. Varying levels of support will be required to assist colleges and universities to revise existing business processes. This will depend on the state of readiness of each institution and the current resources available to them.

4. The Project Evaluation (Inter-ed, 2008) recommended that the reciprocal working arrangements established through the Project thus far be extended.

5. Phase one of the Project has developed a network where in Angus, Dundee, Edinburgh and Glasgow a college, university, Young Scot and a local authority will partner to produce and work with the NEC.

6. Mechanisms to extend the lifelong learning smartcard beyond the colleges and universities involved in phase two will extend the reciprocal working arrangements established. A centre on a set of regional support networks, initially in Angus, Dundee, Edinburgh and Glasgow will be established.

7. Towards the end of phase two, the Project will establish an infrastructure which equips colleges and universities which have implemented the lifelong learning card to support neighbouring institutions within Angus, Dundee, Edinburgh and Glasgow to achieve the same.

8. This will provide a level of support and experience which will help institutions to take the standard documentation and tools provided, to effect their integration and implementation.

9. During phase two, the Project Executive will determine where other regional support centres should be established, and the means for doing so.

10. During phase three, there will be a formal launch and a series of publicity events targeted at the further and higher education sectors. Representatives from all colleges and universities, plus local authorities, Young Scot and other relevant stakeholders will be invited.

11. Colleges and universities will be asked to express their interest, in effect signing up to the scheme. At this stage an implementation timetable will be formalised, and a report presented to SFC and the NEC programme office.

12. The Project will maintain a central online presence to support the dissemination of documentation and to coordinate any on-going issues that cannot be resolved locally. It may be possible to deliver this function through the NEC forum, currently used by Scotland's local authorities.

13. The Project Executive will either be maintained beyond phase three of the Project, or its post Project function absorbed into another appropriate body. The Executive's attention will then focus on maintaining the quality, implementation and sustainability of the Project's outcomes. Revised reporting arrangements from the Executive to an appropriate higher body will have to be established. It is suggested that this would be at a national level, with a suitable focus on lifelong learning.

14. The Executive will review the effectiveness of the post Project implementation and determine if a coordinating post Project office (virtual or otherwise) is required.

15. The Project Executive will report to the Scottish Funding Council and to the National Entitlement Card programme, identifying any barriers and/or issues which could threaten additional enhancement of lifelong learning across Scotland through the use of the NEC and the supporting infrastructure established through this Project.

PART G: Budget/grant sought

Scope

The Project is not seeking resource to fund activities currently undertaken by colleges and universities during the normal course of their business. Project funding is directed towards securing the necessary change to effectively take an existing national infrastructure into Scotland's colleges and universities, with a view to securing the business benefits identified through the initial Project bid, the Project evaluation and this (continuation) bid.

Anticipated resource requirements

Area of expenditure	Anticipated cost	Grant sought
1. Scalable and sustainable introduction of the NEC throughout Scotland's further and higher education sectors (See PART E for additional details)		
• Development and standardisation of card management utilities for use within university and college student record systems	£60,000	£60,000
• Design costs - revised card branding (non institutional specific)	£2,000	-
• Branding revisions at bureau: process set-up and implementation	£5,000	£5,000
• National card management system development for FE/HE functionality	£20,000	£20,000
• NEC programme office – staff costs to support implementation of NEC throughout FE/HE (phases two and three)	£36,000	£36,000
• Card management system record maintenance	£21,600	£10,800
• Card production costs (circa 31,500 cards x £2.00 per card)	£63,000	-
• Project management and administration (phases two and three)	£90,000	£90,000
• Revisions to Project documentation: updated business processes, review of electronic identifier (linking card holder with student record etc.) (i.e. requirements document)	£5,000	-
• Equipping colleges and universities to accept existing NECs (linking card with student record and/or appropriate back office system(s))	£16,000	£16,000
• Young Scot costs (PASS)	£12,000	£10,000
• Project evaluation	£10,000	£10,000
Sub-total	**£340,600**	**£257,800**
2. Enhanced business processes		
• Establishing mechanisms for capturing and re-using core learner information to streamline college and university registration processes (sector wide solutions)	£20,000	£15,000
• Development costs (data capture, transfer to student record and re-use allied to the portable student record)	£20,000	£20,000
• Managing student registration for services available through the NEC not provided by colleges or	£20,000	£15,000

Area of expenditure	Anticipated cost	Grant sought
universities (i.e. providing students with the option to sign-up for additional services during and post registration) (sector wide solutions)		
Sub-total	**£60,000**	**£50,000**
3. Smart applications and services		
• Access control	£50,000	£40,000
• Cashless services (revising business processes to support use of *sQuidcard* e-purse)	£12,500	£10,000
• International students pre registration for services	£12,500	£10,000
• Loyalty/reward schemes	£25,000	£20,000
• Online lifelong learning portfolio	£37,500	£30,000
• Enhancing student guidance/counselling services through the provision of Young Scot information services	£55,000	£45,000
Sub-total	**£192,500**	**£155,000**
4. Enhanced shared services/collaborative working models		
• Developing shared service/collaborative working models where the NEC is used to access services	£100,000	£100,000
Sub-total	**£100,000**	**£100,000**
Implementation of the NEC (post phase 3)		
• Development of support network (training and materials) to enable phase two institutions to extend the NEC to neighbouring FE/HE institutions during phase three and beyond	£25,000	£20,000
• Post Project implementation – support and coordination (sector wide)	£50,000	£50,000
• Publicity and marketing (extending the NEC to other colleges and universities)	£5,000	-
Sub-total	**£80,000**	**£70,000**
Total	**£773,100**	**£632,800**
Total grant sought £632,800		

Matched funding

The Project consortia are seeking £632,800 in funding to resource phases two and three of the Project. Partners' contributions are estimated to be in the region of £140,300 with a significant proportion (£73,800 card production and records management costs) being resourced from the National Entitlement Card programme. Partnering colleges, universities and Young Scot are contributing in the region of £66,500.

Value for money statement

The value for money statement provided in the initial bid essentially remains valid. Where, there is a deviation from the initial statement this lies in the belief of the Project Executive and the findings of the external evaluation that the Project has a greater capacity to provide value for money than first believed through:

- Planned Project deliverables i.e. joining up lifelong learning provision across Scotland in a manner never before achieved, creating substantial value for both learners and the organisations who provide and support learning;

- Ancillary outcomes i.e. significant improvements to business processes (through revisiting how core activities are undertaken and improvements effected), cleaner data within the student record and improved information management processes. As the Project develops, other unplanned benefits are likely to emerge;

- Strong partnership working arrangements established i.e. the commitment from all partners to continue to make the Project successful, comes from the belief that the Project presents unique opportunities to do work and deliver *smarter services*. This drives the Project to higher levels of outputs in terms of innovative approaches being taken to enhance and modernise service delivery in support of lifelong learning;

- Developing and extending reciprocal working arrangements across the partnership.

Appendix A: Initial Project bid

Strategic funds outline proposal application form

Application to:	**Strategic development fund**
Project title:	**Shared services for lifelong learners through the National Entitlement Card**
Lead institution:	**University of Abertay Dundee**

Project partners:

National Entitlement Card	**Angus College**
Scottish Further Education Unit	**Dumfries and Galloway College**
Scottish Library and Information Council	**Dumfries and Galloway Council**
Society for Local Authority and Chief Executives	**Dundee College**
Universities Scotland	**Angus Council**
Young Scot	**Dundee City Council**
	Glasgow City Council
	John Wheatley College
	University of the West of Scotland

Lead institution contact details:	**Ivor Lloyd Depute Principal (Planning and Resources)**
	University of Abertay Dundee Library
	Bell Street
	Dundee
	DD1 1HG
	Tel 01382 308866
	E-mail i.lloyd@abertay.ac.uk
Amount of funding requested:	**Phase 1 - £93,528**
	Note: funding for the remainder Project phases to be determined following the completion of the scooping exercise (Phase 1)

1. Give a full description of the Project

Purpose

This Project expands upon the National Entitlement Card infrastructure to create a platform for shared services across further education and higher education institutions and with local authorities. It creates a more formal working arrangement between universities, colleges, local authorities and YoungScot, which provides comprehensive life long learning solutions to entitlement.

This Project seeks to extend and simplify access to public services across Scotland for lifelong learners and citizens through the adoption of a single smartcard standard throughout the higher and further education sector, aligned with the National Entitlement Card. This will be a powerful (and cost effective) platform, enabling universities and colleges to both manage their own services and applications via smartcard, and where appropriate and/or desirable allow for shared services both across these sectors and with other public services.

Context

Students and staff are entitled to access a range of services administered by their university or college in the course of their studies and/or employment. Access to services is normally conferred at matriculation, or on entering into a contract of employment, with a student or staff card being issued. The process of verifying entitlement to university and college services is rigorous, requiring the production and verification of documentary evidence. Similar processes are regularly repeated across the higher and further education sector. However, these processes tend to be inward looking, focusing on service delivery restricted to the educational provider. Existing models governing the verification of entitlement, and access to services adopted by universities and colleges are essentially silo based i.e. there are no natural pathways whereby a student matriculating at one institution, can automatically access and benefit from services offered by other, or neighbouring institutions, such as library borrowing, sporting facilities student unions etc.

Similarly, students and staff may also wish to access the diverse range of local authority services to which they are also entitled. Previously, conferring access to these services would have required in essence repeating the matriculation process, albeit doing-so at multiple local authority service points depending on the services to which entitlement was sought e.g. leisure centres, libraries.

Repeating the verification process is wasteful, both to the individual in terms of time and inconvenience and to the public sector in terms of the administration and staffing costs incurred. There are also issues of lost opportunity costs notably (in this instance) where students may not take-up and benefit from other services to which they are entitled, where they are required to actively engage with an additional public sector entities be these local authorities and other universities and colleges to 'register' and secure access.

Scotland's 32 local authorities had previously recognised many of these problems and barriers. Local authorities and central government have been successful in developing and implementing solutions to these issues, notably through the National Entitlement Card (NEC) programme. The NEC represents a firmly established, interoperable smartcard platform that works at a national level. The NEC initiative is one facet of the "*Customer First*" programme, which is sponsored by the Scottish Government. The Customer First programme aims to "*encourage all Scottish councils to share resources and create efficiencies that ensure that Scottish citizens have easier access to services and facilities with their local council.*"

The NEC programme is helping to take Scotland's local authorities forward, both in modernising approaches to service delivery that directly benefit customers, while creating an environment that will enhance opportunities for greater collaboration and shared service delivery. The NEC and the supporting infrastructure present a significant opportunity for Scotland's universities and colleges to follow and benefit from a similar approach. There is now an opportunity for universities and colleges to partner with local authorities to improve access to services, while creating platforms

from which greater collaboration and shared service delivery can be realised, through the adoption of the NEC.

This Project is concerned with developing an infrastructure which will support and drive the extension of the NEC, both in terms of card issuance, management etc. *and* the accompanying *Customer* First visions of improving and modernising services, extending this work beyond the local authority arena, where this programme originated, moving into Scotland's universities and colleges.

Project outcomes

This Project will create and make available mechanisms from which all of Scotland's universities and colleges can implement and develop services through a common smartcard standard i.e. the National Entitlement Card. This will be a powerful platform, enabling universities and colleges to both manage their own services and applications via smartcard, and where appropriate allow for shared services across the sector with other public services. This proposal will also encompass the creation of a more formal working arrangement between universities, colleges, local authorities and YoungScot, thereby creating lifelong learning solutions to entitlement.

An interoperable smartcard operating across local authorities and the higher and further education sector would create substantial opportunities and benefits. It would provide access to services for students as they progress between secondary, further and/or higher education.

A common smartcard platform across higher and further education will increase opportunities for resource sharing throughout these sectors e.g. on matriculating students could potentially access library services across Scotland as opposed to being restricted to a single or local library network.

The Project will:

- Build on the proof of concept secured following implementation of an interoperable smartcard through work undertaken by Dundee City Council and the University of Abertay Dundee, which functions as a university matriculation (or staff) card, while also providing access to services administered by a local authority

- Further develop and implement business processes across the Scottish public sector, than enable users through a single registration process to register for a range of public services and entitlements, many of which are not necessarily provided or managed by the entity with whom registration took place

- Introduce the National Entitlement Card to a representative range of universities and colleges, creating shared service arrangements between the institutions and their partnering local authority to issue and manage smartcards

- Identify any barriers that may impede the extension of the National Entitlement Card throughout Scottish universities and colleges

- Where necessary initiate a programme of work with the NEC Project partners to reduce the impact of any implementation barriers identified, or to identify workable cost effective solutions

- Create a sustainable and repeatable model capable of extending the adoption and implementation of the NEC throughout Scotland's universities and colleges; offering a set of "*core services*" which all participating universities and colleges implementing the NEC will adhere to, with options to extend the services and facilities available through the model for institutions who seek to do so

- Reduce the costs of NEC implementation, and subsequent smartcard applications development across the higher and further education sectors, through the creation and exploitation of high quality knowledge transfer networks. Knowledge transfer networks will initially be populated from Project outcomes and outputs, with subsequent materials e.g. developed smartcard applications being made available from the institution(s) who undertook the implementation

- Investigate and develop models which facilitate greater collaboration and/or shared service arrangements between universities, colleges and local authorities where access to services is managed through the NEC

Phased delivery

The Project will be delivered in three phases:

- Phase 1   *February 2008 – October 2008 –* Migration to the National Entitlement Card at the University of Abertay Dundee, partnering with Dundee City Council, scoping out the necessary business processes required to support the implementation and card issuance to students and staff in preparation for extending a large scale pilot with the other partnering institutions. The key output from phase 1 will be a full Project proposal endorsed by all Project partners

- Phase 2   *December 2008 – March 2010* - Develop and extend the model (card issuance and management processes) with partner institutions, local authorities and the National Entitlement Card programme, while developing knowledge transfer arrangements that will provide a platform for Scotland's universities and colleges (partnering with allied local authorities) to conduct similar implementations at minimum cost

    Investigation and development of self-sustainable and repeatable models of shared service delivery across universities, colleges and local authorities where the National Entitlement Card is used to manage access to services

    Development and implementation of a core programme of smartcard applications identified to be of benefit to universities and colleges and an accompanying knowledge transfer package that will streamline or modularise implementation processes elsewhere, substantially reducing the costs of doing-so. Developing access control solutions that both extend access to services within universities and colleges, while allowing controlled access to members of the public to identified resources has been identified as one priority application area

- Phase 3   *April 2010 – December 2010* – Programme of knowledge transfer, capacity building and targeted support within the sectors to assist universities and colleges to implement the National Entitlement Card, and the core suite of smartcard applications developed and implemented during phase 2

      Establishing across the university, college and local authority sectors the shared service models investigated and developed during phase 2

      Identify institutions that have opted not to introduce the National Entitlement Card, establishing barriers and/or issues that have prevented implementation – making recommendations to the Scottish Funding Council and the National Entitlement Card programme as appropriate should it become desirable to extend the use of the NEC beyond the institutions who chose to do so

Alignment with national policy initiatives

The Project will address aims and objectives of the Scottish Funding Council and the core aims of the Improvement Service for Local Government that seek to develop shared public services and promote value for money with the public sector. Both through the innovative nature of this Project and through effective, meaningful knowledge transfer. Significantly, the Project creates pathways for Scotland's local authorities, universities and colleges to collaborate in modernising public services through which a number of national policy initiatives come together, creating greater value for a range of stakeholders.

The Project's kernel is extending and simplifying access to services. This Project will build capacity for extending learning opportunities where citizens can more fully engage with the services and facilities available through Scotland's colleges, universities and local authorities. Developing collaborative practices and shared services within and across these sectors will further extend opportunities for citizens where innovative, high quality public services emerge. By extension the Project aligns naturally with many of the Scottish Funding Council's "cross-cutting themes". Notably:

- Economic development
- Contributing to the development of communities, cities and regions
- Promoting greater coherence – working to meet the diverse needs of learners, employers and the wider society of Scotland

The Project team have identified alignment between this bid and the following aims, objectives and priority actions from the Scottish Funding Council's Corporate Plan:

- **Aim 5, Objective 1: Improve the flow of knowledge, expertise and ideas to businesses, enterprises, and public services**

  - Priority Action 42: We will work with key partners to develop knowledge exchange activities (particularly in relation to key business processes) that enhance innovation in public policy and practice in Scotland, and strengthen the policy community.

- Priority Action 43: We will develop means to incentivise increased cultural engagement with the wider community and stimulate creativity.

- **Aim 5, Objective 2: Improve the innovation system in Scotland**

  - Priority Action 45: The Project provides joint working at local, regional and national levels that will stimulate entrepreneurship and innovation in service delivery thereby supporting Efficient Government and creating a platform for further innovation in collaboration and shared service delivery across Scotland's universities, colleges and local authorities

- **Aim 7, Objective 3: High quality buildings, facilities and equipment**

  - Priority Action 66: We will develop models which support extended access to Scotland's college and university facilities – extending access to learning opportunities for all who have the potential to benefit

- **Aim 7, Objective 4: Sustainable investment and development in Colleges and Universities**

  - Priority Action 70: We will promote the efficient and effective use of resources in pursuit of best value by the sectors and the Council through the Scottish Executive's Efficient Government Initiative and other activities.

2. Give a full description of the Project's aims and objectives. What will it achieve?

Project aim
To develop innovative shared services, which promotes and extends access to lifelong learning opportunities?

Project objectives
- By developing and embedding innovative models of shared service arrangements between universities, colleges and local authorities with access to services managed through the National Entitlement Card

- By creating self-sustainable and repeatable models to extend the adoption and implementation of the National Entitlement Card throughout Scotland's universities and colleges, as a standard for improving access to, and modernising service delivery

- By encouraging Scotland's universities and colleges to implement and issue the National Entitlement Card, in-part through the creation and dissemination of the necessary information and guidance, which will substantially reduce the time and cost barriers likely to be encountered by institutions should no assistance be available

- By creating high quality and effective knowledge transfer networks across local authority, university and college sectors, to reduce to a minimum the start-up costs allied with the implementation of the National Entitlement Card, and any subsequent smartcard applications driven through the card, while maximising existing investment

- By working with the National Entitlement Card Project team, to identify and address potential barriers to implementation, specific to the higher and further education sectors

- By working with YoungScot and partnering local authorities to investigate and implement solutions that (a) support the delivery of YoungScot services and entitlements on National Entitlement Cards issued by universities and colleges and (b) support the (seamless) transfer of services and entitlements between secondary school and further and higher education

3. Did we ask you to make any changes to the Project at outline stage, or provide any further information on specific areas? If so how have you

- Not applicable at this stage – this is an outline bid

4. What are the specific outputs and outcomes of this Project?

Project outcomes

- The development of real example frameworks and accessible best practice guidance that facilitate shared service delivery and/or greater levels of collaboration across universities, colleges and local authorities, where access to services is managed via the National Entitlement Card

- Adoption of the National Entitlement Card as a standard throughout Scotland's universities and colleges

Project outputs

- Produced from work with the National Entitlement Card Project team and local authorities in Angus, Dumfries and Galloway, Dundee and Glasgow an initial scoping exercise will be undertaken to develop an understanding of the business processes necessary to underpin the development of the NEC within local authorities. The understanding of these business processes and their allied requirements will inform the development of a subsequent pilot to implement the NEC within identified universities and colleges

- Implementation of the NEC as a interoperable smartcard, providing access to services administered by the pilot institution and the partnering local authority, with the following institutions:

  - Angus College
  - Dumfries and Galloway College
  - Dundee College
  - John Wheatley College
  - University of Abertay Dundee
  - University of the West of Scotland

- To develop and make available to all Scottish universities and colleges: business processes which can either be adopted or readily adapted, which allow for institutions to (a) issue National Entitlement Cards to students and staff and (b) to deliver and administer a core set of services through the NEC

- Best practice guidance for universities and colleges on data-protection, data-transfer, and data-quality issues necessary to support the issuance and management of the National Entitlement Card when partnering with local authorities, and in providing seamless access to public services across Scotland where consent to do so has been given by individuals

- To development and implementation of knowledge capture and transfer arrangements between local authorities, universities and colleges to (a) reduce the costs of implementing NEC throughout the higher and further education sectors and (b) to substantially reduce the cost of developing smartcard applications and services

- The development of a portal, to support knowledge exchange throughout universities and colleges

5. Give full details of the Project management arrangements for this Project

- The Project will adopt the governance arrangements used by the National Entitlement Card Project

- Relevant elements from the PRINCE2 Project management methodology will be extracted, to ensure high quality outputs

- A Project manager will be appointed, and will have day to day responsibility for the development of the Project

- The Project manager will work an operational group of representatives from all operational partners. The operational group will meet every two months

- A Project steering group will be established with senior representation from all Project partners

- The Project steering group will meet three times during phase 1 of the Project and will deliver a full Project proposal by October 2008 to which all partners are fully committed

6. What will you have addressed as being the main risks for your Project and how will you reduce or overcome these?

Risk	Degree of risk	Controls
Withdrawal of support for the Project at national level (Scottish Government, Higher and Further Education Sectors)	Low	The National Entitlement Card Project is a core element of the *Customer First* initiative, which is sponsored by the Scottish Government. Discussions with the Scottish Funding Council, Universities Scotland, and the Society for Local Authority Chief Executives have indicated a high level of support for this proposal

While modernising and improving access to public services remains a key policy area for Government, universities, colleges and local authorities, quickly demonstrating the impact of the implementation of the National Entitlement Card to deliver on shared service and modernising government agendas is a priority to guard against loss of Project support from the key stakeholders identified |
| Withdrawal of support for the Project at a senior management level within universities and colleges | Medium | Following discussions at Universities Scotland and with Scottish Further Education Unit, at the Project outset there is a reasonable level of support for this initiative from senior managers

As the Project moves into the implementation stage middle mangers within organisations may identify issued that emerge as barriers to working with the National Entitlement Card within |

Risk	Degree of risk	Controls
		universities or colleges. Should senior managers then share these concerns (either perceived or real) doubts may emerge which could result in loss of support for the Project
		To ensure continued senior management support, it is essential that the Project team both demonstrate the business benefits of the proposal and give confidence that any barriers identified can be overcome within time and cost limits
Loss of key Project staff	Medium	It is Projected that the Project will run over 4 years. Given the timescale, it is not unreasonable to suggest that key Project team staff for whatever reason may leave
		To ensure consistency in Project delivery, Project documentation will be rigorously maintained to high standards to facilitate effective knowledge transfer between colleagues should any staffing changes become necessary
		Contractual notice periods will be weighted towards knowledge transfer activities above completion of Project tasks
Any significant Project failure at the National Entitlement Card	Low	The National Entitlement Card is used to deliver services to citizens across Scotland's 32 local authorities. Service includes management of entitlements for disabled persons, concessionary travel, school meals etc. As such significant failure in the card infrastructure is likely to be low given that the NEC is become mission critical device.
		Continuous testing and development based on feedback and discussions with users', local authorities and the National Entitlement Card Project team should ensure that any difficulties identified are not carried over into implementations within universities and colleges
Scepticism within the universities and colleges surrounding data-protection and perceptions of a "*big brother*" society allied with the delivery of services via a national smartcard, leading to a rejection of the NEC as a mechanism to	Low	The National Entitlement Card programme is currently undertaking a detailed review of data protection, working with a number of parties including the Office of the Information Commissioner to identify legislative and best practice requirements
		The Project team will actively work with universities, colleges and local authorities to both raise the issue in open debate and to fully air the protections build into to safeguard data and

Risk	Degree of risk	Controls
access public services		privacy. In parallel the Project team will illustrate the freedoms through increased access to services which the Project will deliver

7. How will you evaluate the process and outcomes of the Project?

- Use of PRINCE2/project management tools (measuring progress against stated Project deliverables) which will form the baseline of reports to the Project steering group from the Project manager

- Reporting to, and guidance received from Project steering group – the Project steering group will consist of up to 2 representatives from each Project partner

- Feedback secured from the National Entitlement Card Project team, who will review and evaluate the management and delivery of Project outputs allied with each of the 3 phases identified

8. Give details for the arrangements for disseminating the Project outcomes to the sector

- Project website

  - Dissemination of Project reports, minutes of Project meetings etc.

        - Proactive publishing of Project materials into the public domain to demonstrate transparency, while reducing likelihood of having to respond to freedom of information requests

      - Key knowledge transfer component

        - Dissemination of business processes, information and guidance to support NEC implementation

  - Report to Universities Scotland and Scotland's Colleges

  - Briefings to the Scottish Funding Council

  - Media briefings: relevant national and regional publications and specialist educational press e.g. THES

- Conference paper(s)

- Presentations / dialogue with the National Union of Students

9. What is the timescale for your Project

- Phase 1 – February 2008 – October 2008

- Phase 2 – December 2008 – March 2010

- Phase 3 – April 2010 – December 2010

10. Budget

- In summary, anticipated cost for Phase 1 £126,028 with £93,528 being sought. Section 12 provides detailed costings.

11. Provide clear evidence of how the Project represents value for money

The Project is designed to provide a legacy of best value for money across the public sector.
- It will make best use of existing local authority investment in smartcard technology and in National Entitlement Card services by extending these developments to the further and higher education sectors, without necessarily requiring duplication of resources and expertise. This will minimise the cost to the sectors of adopting smartcard technologies and business practices

- Significantly open up access to public services, through (a) creating innovative partnerships e.g. joint public and academic library networks, (b) implementation of unattended access control to extend opening hours (c) improving uptake of services where access to services from a registration standpoint is streamlined minimising the requirement for users' to undertake repeated joining exercises at multiple service points and (d) providing extended access to services through rewards and incentives schemes. As the Project develops and shared service arrangements across public agencies in Scotland matures other opportunities to extend access to services are likely to be identified and acted upon

- The Project will make a significant contribution to national initiatives notably at this time by extending the uptake of National Entitlement Cards throughout those aged 18 – 26

The Project itself provides excellent value for money due to the high level of partner engagement, and the substantial potential to develop shared services across universities, colleges and local authorities. Here the Project will provide value for money where opportunities for individuals to access and benefit from a wide range of services is maximised and pressure on the public purse is reduced where unnecessary duplication of resources is minimised.

However, this potential is unlikely to be fully realised where universities, colleges and local authorities lack a vehicle from which services can be managed and delivered through a common standard. The National Entitlement Card is a vehicle which local authorities are using to help drive service improvement and modernising government agendas. Although the Project's initial focus centres on a national technological development, the Project is firmly focused on key SFC priorities and primarily seeks to increase opportunities for lifelong learning in Scotland.

12. Budget / Grant sought – Phase 1 February 2008 – October 2008

Area of expenditure	Anticipated Cost	Grant Sought
Phase 1 February 2008 – October 2008		
▪ Project Management (2 days/week for 9 months)	£30,000	£15,000
▪ Evaluation costs (external evaluation)	£6,000	£6,000
▪ Production of Report for feeding into Phase 2	£3,000	-
Sub-total	**£39,000**	**£21,000**
Scoping exercise		
▪ Outline Scoping/project plan	£8,000	£8,000
▪ Business Process Analysis	£10,000	£10,000
▪ Card design costs (Designers time to establish standardised approach)	£5,000	£5,000
▪ Card bureau design, process set-up and implementation costs	£5,000	£5,000
▪ Card Management System (CMS) development costs ○ 3 days Project management - £1,587 ○ 5 days analysis – £2,645 ○ 30 days design/development - £12,000 ○ 8 days system testing - £3,496	£19,728	£19,728
▪ CMS record maintenance (£0.30/record x number of cardholders UAD)	£1,800	£1,800
▪ Young Scot Costs	£12,000	-
Sub-total Scoping exercise	**£61,528**	**£49,528**
Issuance of NEC University of Abertay, core application development		
▪ Card Production and issue for University of Abertay cards as NEC (6,000 cards x £3.00/card)	£18,000	£18,000
▪ Training	£2,500	-
▪ Core application development (access control)	£5,000	£5,000
Sub-total Issuance of NEC University of Abertay, application development	**£25,500**	**£23,000**
Total for Phase 1	**£126,028**	**£93,528**

National Entitlement Card: Phase 1 Project Evaluation

October 2008

Report by Inter-ed Ltd.

Contents

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Introduction

This is a formative evaluation of the NEC Shared Services Project, phase 1. The Project is focused on the provision of shared services for lifelong learners through the use of the National Entitlement Card.

National Entitlement Card

The [Scottish Executive](#) introduced the National Entitlement Card on 1st April 2006, with a particularly strong focus initially on concessionary bus travel throughout Scotland for those aged over 60 and the disabled. However, its development and potential applicability is much greater.

The National Entitlement Card was originally pioneered amongst local authorities in Scotland, with Dundee City Council being the lead authority. Its early development has already allowed Dundee City Council to explain (http://www.dundeecity.gov.uk/faqs/discoverycard, 2008):

"*A National Entitlement Card (NEC) is a smartcard which can be used to access a wide range of services such as transport, education, libraries, leisure, school meals, concessions, and proof of age for young people. The NEC means using one card rather than many, which is more convenient to use and cheaper to administer.*"

Such is its use in Dundee City area, it is no longer a card merely for the elderly or retired, but a card for everyone, with Dundee City Council encouraging all citizens to access an entitlement card on a voluntary basis.

Education sector potential

Its successful development (including in the schools sector in Dundee where it is used for concessionary travel and accessing school meals amongst other applications), led to a recognition of its potential for wider applicability. With local authorities, Young Scot, Abertay University and the college sector via SFEU being early driving forces, a successful bid to the Scottish Funding Council for phase 1 monies was successful, with Abertay University named as the lead institution for the Project. This has allowed early development work to take place aimed at testing out its potential amongst post school education providers.

National government support

Furthermore, as recently as August 2008, the Scottish Government (http://www.scotland.gov.uk/News/Releases/2008/08/11095527, 2008) announced a one year pilot for international students involving Young Scot in collaboration with Abertay University. In launching the pilot, Fiona Hyslop, Cabinet Secretary for Education and Lifelong Learning, said:

"*The Scottish Government wants all our young people to have the support they need to fulfil their potential - and that includes students from overseas studying in Scotland.*

"Moving to a new country at a young age can be a daunting experience. We want to make these students feel at home in Scotland and improve access to the opportunities, services and advice available.

"That's why we have asked Young Scot and Abertay University to develop a one year pilot to determine how best we can improve support to international students while they are living here. We can then explore options for similar services for other overseas students studying throughout Scotland."

In an informal discussion with the Cabinet Secretary prior to the start of this evaluation, the commitment of the Scottish Government (assuming successful piloting), to the development of the National Entitlement Card for all students in Scotland was made clear.

This therefore is a Project that has already attracted the attention of national figures as well as a range of partners. However, such long term commitment and support is conditional on the Project demonstrating its viability and ability to deliver efficient and effective services.

Project aims

The overall aims of the Project have been described as follows in a range of Project documentation:

- Build on the proof of concept secured following implementation of an interoperable smartcard through work undertaken by Dundee City Council (DCC) and UAD. The card functions as a university matriculation (or staff) card, while also providing access to services administered by a local authority.

- Further develop and implement business processes across the Scottish public sector, enabling users through a single registration process to register for a range of public services and entitlements, many of which are not necessarily provided or managed by the entity with whom registration took place.

- Introduce the NEC to a representative range of universities and colleges, creating shared service arrangements between the institutions and their partnering local authority to issue and manage smartcards.

- Identify any barriers that may impede the extension of the NEC throughout Scottish universities and colleges.

- Where necessary initiate a programme of work with the NEC Project partners to reduce the impact of any implementation barriers identified, or to identify workable cost effective solutions.

- Create a sustainable and repeatable model capable of extending the adoption and implementation of the NEC throughout Scotland's universities and colleges.

- Offering a set of "*core services*" which all participating universities and colleges implementing the NEC will adhere to, with options to extend the services and facilities available through the model for institutions who seek to do so.

- Reduce the costs of NEC implementation, and subsequent smartcard applications development across the higher and further education sectors, through the creation and exploitation of high quality knowledge transfer networks. Knowledge transfer networks will initially be populated from Project outcomes and outputs, with subsequent materials e.g. developed smartcard applications being made available from the institution(s) who undertook the implementation.

- Investigate and develop models which facilitate greater collaboration and/or shared service arrangements between universities, colleges and local authorities where access to services is managed through the NEC.

At the outset however, it was recognised that for such an ambitious Project, it would be wise to develop the Project in three phases. These phases are:

Phase 1
February 2008 – October 2008

Migration to the National Entitlement Card at the University of Abertay Dundee, partnering with Dundee City Council, scoping out the necessary business processes required to support the implementation and card issuance to students and staff in preparation for extending a large scale pilot with the other partnering institutions. The key output from phase 1 will be a full Project proposal endorsed by all Project partners.

Phase 2
December 2008 – March 2010

Develop and extend the model (card issuance and management processes) with partner institutions, local authorities and the National Entitlement Card programme, while developing knowledge transfer arrangements that will provide a platform for Scotland's universities and colleges (partnering with allied local authorities) to conduct similar implementations at minimum cost.

Investigation and development of self-sustainable and repeatable models of shared service delivery across universities, colleges and local authorities where the National Entitlement Card is used to manage access to services.

Development and implementation of a core programme of smartcard applications identified to be of benefit to universities and colleges and an accompanying knowledge transfer package that will streamline or modularise implementation processes elsewhere, substantially reducing the costs of doing so. Developing access control solutions that both extend access to services within universities and colleges, while allowing controlled access to members of the public to identified resources has been identified as one priority application area.

Phase 3

April 2010 – December 2010

Programme of knowledge transfer, capacity building and targeted support within the sectors to assist universities and colleges to implement the National Entitlement Card, and the core suite of smartcard applications developed and implemented during phase 2.

Establishing across the university, college and local authority sectors the shared service models investigated and developed during phase 2.

Identify institutions that have opted not to introduce the NEC, establishing barriers and/or issues that have prevented implementation – making recommendations to the Scottish Funding Council and the National Entitlement Card programme as appropriate should it become desirable to extend the use of the NEC beyond the institutions that chose to do so.

Evaluation aims

This evaluation has been carried out by Roger Mullin of Inter-ed Ltd. The key aims of the evaluation have been:

1. To review the Project against the Project aim for phase 1 as set out above.
2. To review Project management arrangements.
3. To capture any added value accruing to the Project.
4. To capture the views of a sample of participants, and particularly those of the university and college sectors.

Overview of Project

This Project involves a diversity of organisations and also the use of a technological platform to bring together a range of services useful for lifelong learners in Scotland. It involves change of a significant order. First, it involves participant organisations in agreeing to bring a range of services into alignment. Second, it involves organisations in adapting existing processes and procedures for the registering and serving of individuals. Third, it involves the use of a technological platform new to the university and college sectors.

Given the above, Inter-ed, in approaching the evaluation, was very aware of the order of challenge presented. Major Projects which involve organisational change, and major Projects that involve the application of technological solutions, have a very chequered

history. Regarding Projects involving organisational change, Cameron and Quinn (2006) have noted that,

"*The failure rate of most planned organizational change initiatives is dramatic. It is well known, for example, that as many as three-quarters of reengineering, total quality management (TQM), strategic planning, and downsizing efforts have failed entirely or have created problems serious enough that the survival of the organization was threatened (Cameron, 1997). What is most interesting about these failures, however, is the reported reasons for their lack of success. Several studies reported that the most frequently cited reason given for failure was a neglect of the organization's culture. In other words, failure to change the organization's culture doomed the other kinds of organizational changes that were initiated (Caldwell, 1994; CSC Index, 1994; Gross, Pascale, and Athos, 1993; Kotter and Heskett, 1992)*"

This finds parallels with Projects with a high technological component and in particular where there is an element of Information Technology involved. Lewis (accessed online 2008) has claimed that,

"*On average, about 70 percent of all IT-related Projects fail to meet their objectives.*" A view that finds support from a review by IT Cortex (accessed online 2008) of 5 major international surveys that led them to conclude

- *"an IT Project is more likely to be unsuccessful than successful*
- *About 1 in 5 IT Projects is likely to bring full satisfaction*
- *The larger the Project, the more likely the failure.*"

With all of the above in mind, this evaluation was approached with some caution.

The report

This report discusses progress during phase 1, and makes some recommendations as to what requires to be focused upon in phase 2. There are many real challenges yet to be faced, and some important policy issues to be resolved, but as will become evident, the prize is that there are also very considerable potential benefits to learners.

We also argue that, although there may be some efficiencies generated by the Project, and particularly when it is scaled up, the greatest gain is likely to be in terms of effectiveness, and the provision of high quality services to Scotland's learners.

Study Methods

This evaluation involved the following methods of investigation.

1. **Desk top review.** A wide range of materials were supplied by Abertay University, Dundee City Council, Young Scot and the offices of the NEC in Dundee. In addition, minutes of Project meetings and related documents have been made available. All of these documents have been reviewed as part of this evaluation. In addition, Susan Russell of Abertay University provided an extremely helpful set of notes reflecting on the practical issues involved during piloting the use of the card.

2. **Observation.** During the early stages of Abertay University piloting the use of the National Entitlement Card during the matriculation of students, time was spent observing the process and discussing it with university staff.

3. **Interviews.** A series of interviews were held with the participants named below. In a number of cases, meetings were held on more than one occasion. Given the focus of this Project, a particular effort has been made to ensure an understanding of the issues for universities and colleges.

Key evaluation participants

Table 1: Evaluation participant list

Name	Organisation/College
Elena Brown	Dundee City Council
Elaine Fulton	Scottish Library and Information Council/CILIP in Scotland
Sid Bulloch	National Entitlement Card Manager
Louise McDonald	Young Scot
Graeme Robertson	Young Scot
Martin Fairbairn	Scottish Funding Council
Chris Milne	University of Abertay
Ivor Lloyd	University of Abertay
Susan Russell	University of Abertay
Dr Steve Gallagher	University of the West of Scotland
Brian Lister	Stevenson College and SFEU
Jim Godfrey	Dumfries and Galloway College
Alan Inglis	John Wheatley College

Project Management

Given the concerns highlighted in the introduction regarding the chequered history of large Projects with an IT component, we reviewed the Project management arrangements, and also the extent to which phase 1 was likely to be delivered on time (the evaluation being undertaken September to mid October 2008, with phase 1 end date being the end of October 2008). This review involved in particular interviewing the Project manager, Chris Milne, reviewing Project management documentation, observing the process of card distribution, and reviewing comments from a number of Project partner interviewees. Roger Mullin who carried out the review has experience of large scale Project management, has provided consultancy support to organisations on Project management, and teaches elements of Project management on MBA programmes at the University of Stirling.

Project management architecture

From the outset, the Project has adopted key principles of PRINCE2, and applied them effectively. This has included ensuring there are effective Project management oversight arrangements, such as regular Project Executive Meetings involving all partners with effectively prepared agendas, effectively chaired meetings and effectively recorded minutes. Such meetings have over recent months also considered an appropriate range of documents.

Project management commitment

Furthermore, while the initial bid for phase 1 called for 50% of the funding involved in the provision of 2 days per week of Project management, the nature of the Project management supplied has been very flexible, able to respond quickly and effectively to requests and needs. For example, for the purpose of this evaluation, there has in effect been full-time on call support supplied. There is no evidence that Project management arrangements in terms of time have been insufficient, indeed a number of partners during interview commented very favourably on this aspect of the Project.

Project management approaches

The Project has used Microsoft Project as a key tool, breaking down the Project into appropriate sub-tasks with clear timelines and resource identification needs. It did not

use network planning/critical path analysis, but had the Project been sufficiently complex to warrant it, it would have been a straightforward task to migrate the analysis from the current approach to fulfil network requirements. Furthermore, it is clear that the Project control documents are used and updated when appropriate.

Coordination

Abertay University were not alone in delivering phase 1. They had to coordinate a wide range of matters with the National Entitlement Card office, Dundee City Council and Young Scot to enable the practical elements of phase 1, and particularly effective card production, to proceed. This was accomplished.

Process alignment

The alignment of earlier Abertay university processes with the requirements for the issuing of an effective National Entitlement Card was also accomplished.   (Further comments on this aspect follow).

Authentication

There is a process of audit involving the British Retail Consortium and Young Scot that is applied to local authorities, and by extension via Dundee City Council to Abertay University. The university's processes have therefore had to satisfy these external audit standards. This ensures that individuals are eligible for discounts, but in the process ensures that individual card holders are fully authenticated and thus able without any further identification requirements, to access a wide range of local services.

Timeline and budget

One consequence of tight Project management has been the delivery of the key practical element of phase 1 on time, and within Project budget. Indeed from the earliest date for the matriculation of students at Abertay University for the 2008-2009 academic year, National Entitlement Cards were available for issue and use during matriculation. At the time of writing over 1700 cards had already been issued as part of the initial pilot phase with over 2200 to be issued by November 2008 as part of the next wave funded under phase 1.

The funding grant sought for phase 1 from the Scottish Funding Council was £93,538. The actual spend was on track for coming in at an estimated £89,028, some £4,500 under budget.

Given the key practical outcome from phase 1 was coming in on-time and under budget at the time of this evaluation, this has relieved some of our earlier stated concerns regarding complex Projects with an IT component.

Reflections on phase 1 outcome

A particularly important outcome for phase 1 was the migration to the National Entitlement Card, and incorporation of Young Scot and Dundee City Council services, by Abertay University.

Previous to this, Abertay had its own processes and use of a matriculation card. The processes had to be aligned with the National Entitlement Card. This required changes in the handling and management of information as well as the coordination of all the tasks necessary for the effective issuance of cards.

The key staff involved in the issuance process did have some teething problems, but all were overcome. These included recognition that not all staff had been fully trained in the new process and the resultant reliance on on-the-job learning created some initial anxieties and practical problems. However, there were no problems of such a scale or complexity that they were not readily overcome. However, it did serve to highlight the need for effective training of all staff involved prior to issuance.

The introduction of Young Scot for those eligible, did mean a little more paperwork to get used to, but as a key member of staff stated "*it was fine in the end.*" Indeed the whole process, because it needed to be very carefully designed and managed on a consistent basis, led to some real gains in terms of overall control and professionalism of the service. As was stated by a member of staff involved,

"*I think that even though the process is a bit more fiddly, the benefits far outweigh the negatives.*"

In addition to confirming the need for appropriate staff training of everyone involved, another issue that arose at a practical level was that of security of cards outwith registration periods. The solution eventually adopted at Abertay to avoid having to pack up all of the equipment and cards after each registration session, was to issue the cards from a lockable room where the stations were permanently housed.

There are therefore a number of practical lessons learned from the issuance process at Abertay that require to be fully captured and passed on to other partners for subsequent phases of this Project.

Summary

The Project management thus far has been extremely effective, delivering all of the intended practical outcomes on time and within budget.

Identity Card Issues

A major concern of partners has been the need to ensure the National Entitlement Card is neither in practice nor in perception a government identity card. All partners interviewed were keen to ensure the principle was secured of it not being an identity card. Sid Bulloch, the National Entitlement Card manager, was particularly helpful in clarifying the difference between the NEC and the UK government's proposed Identity card.

Card design features

There are a number of features designed to ensure the National Entitlement Card does not operate as a government identity card. Among the differences between the NEC and the proposed government ID cards are the following:

- The National Entitlement Card is free and voluntary.
- It cannot hold a biometric (fingerprint or iris scan).
- It cannot support a digital certificate.
- The maintenance of personal data on the NEC is the responsibility of the card holder (e.g. change of name or address).
- The NEC customer can choose to add or remove products or services, there is no integrated national database.
- The NEC database is partitioned by local authority and only they have access to their citizens' records.
- The NEC does not require card holders to provide any additional personal information or proof of identity other than what has always been the case.
- NEC registration requires documentary evidence derived from other registration processes such as a passport or driving licence and therefore the personal information is already held on a database.
- The NEC does not capture anything which would allow cross referencing to other systems.
- The government's proposed ID card scheme sets out forty nine different types of information that can be held on each individual and has provision for this to be extended. By comparison the NEC holds thin data sets and the NEC only contains very basic personal information along with references required to access any services which cannot use the card number and so rely on legacy reference

numbers. This is qualitatively and in terms of data quantity very different from the twelve personal references allowed for in the ID card scheme.

Transaction issues

At a practical level, protecting the NEC from being perceived as an ID card extends to ensuring it cannot be used for individual profiling. Thus, for example, in discussing with the NEC manager how the card might be used to reward students, say for library activity, it was explained that,

"*We wouldn't want the library visit(s) directly associated with the card or the card management system. We need to stay clear of all transactions. If however library use was aggregated within the library system and translated into "points" which are then credited to an account on the "Rewards" system we could put something in place whereby the card could be loaded with the points or the equivalent monetary amount. The card then becomes a convenient "token" for carrying the credit and we have no record of how that was set up or what transactions sat behind it.*"

By carefully avoiding capturing transactions, it means the card cannot be used for individual profiling and thus it further protects the privacy of the individual.

It has been reassuring to note therefore that both in terms of the views of all the participating partners, and the technical design of the National Entitlement Card, there is considerable protection against the card being used as or seen as a government ID card.

Shared Services

In the longer run, a key aim is to develop innovative shared services which promote and extend access to lifelong learning opportunities. A key benefit to individuals, participating institutions and to government, can be found in the ease of access to a wide range of joined-up services.

Early days

These are early days for the National Entitlement Card. There is much work to be done to harmonise provision across all of Scotland's local authorities. At present, Dundee City Council as lead authority is particularly well advanced, and also particularly ambitious regarding the possibilities. It has therefore been particularly fruitful that phase 1 of this Project should be centred around Dundee.

In phase 1, the card received by students at Abertay can potentially involve joining up services from the university, Young Scot (for those under 26 years old), and Dundee City Council. At this early stage a particular focus has been given to library and information services, but there is considerable scope to see future developments. The following outlines what is already possible.

From pre-cradle to grave

One interviewee pointed out that lifelong learning services can be enabled by the card from pre-birth, in the sense that it gives access to local services for mothers seeking to give up smoking prior to giving birth. Although the service is for the mother, a key beneficiary of the learning is the unborn child. As the young child develops, her parents have ease of access to a wide range of services including leisure and recreation facilities enabling the young child to learn to swim, or experience new forms of play. Once at school, she is able to access a range of support services, such as ease of access to local libraries. When she reaches the age of eleven, she has access to a wide range of information services provided by Young Scot, thus improving access to information on such important areas as health. Her card also assists in delivering aspects of the equality agenda; for example she no longer needs to queue separately for free school meals. As she progresses up the school, she may join an Abertay University S5/6 literacy Project, where her card gives access to the university library, and the university library can give

access to a wide range of resources to support her when she is undertaking Advanced Higher studies. When she moves on to become a college or university student, she is already a skilled card user, able to access a wide range of support resources, and perhaps not least the more than 100,000 discount services offered in more than 40 countries by Young Scot. As a maturing citizen, her card gives her access to a wide range of local and national entitlements, including (assuming the necessary agreements are in place) permanent access to college, university and local library facilities to support her continued development.......and so on.

Individual impact

The above is a glimpse of only some of the possibilities. It serves to emphasise that shared services are of great practical benefit to individual citizens in opening up ease of access through their entitlement as citizens. At times, there is a tendency to approach the debate about shared services from the point of view of administrative and financial efficiencies, enabling better value for money. While it is true there are many efficiencies likely to be realised, it is the individual citizen who is the ultimate beneficiary.

Extending reach

The engagement with lifelong learning students at colleges and universities will provide cost efficient and effective routes to engagements with citizens who may otherwise be hard to reach.

Local Authorities

For example, local authorities recognise that there is difficulty in reaching citizens who may move home regularly, and who are not in employment. Students are a major group falling into both categories. Furthermore, some of those students who engage with the college sector are from particularly hard to reach social groups. Thus, Dundee City Council were keen to point out that, notwithstanding the success of all their efforts to engage with their citizenry since the earliest day of the Dundee Discovery Card (a forerunner of the National Entitlement Card), the involvement of the post school education sector will significantly improve their reach amongst challenging groups.

Young Scot

But it is not only local councils who will enhance their reach. Young Scot will be able more easily to reach substantial numbers of young people. This will enhance the impact of Young Scot, and potentially strengthen its bargaining power on behalf of young people living in Scotland.

It is clear that local authorities and Young Scot want to reach out to students even more effectively than they have been able to up until now. The National Entitlement Card issued by colleges and universities to students, provides the vehicle for extending their reach. Ultimately of course, the beneficiary is the individual student who has ready access to a wide range of services.

Libraries

The Scottish library service too is keen to extend its engagement, not least because of the investment in new technologies which provide much greater access to information resources. Indeed, given many colleges use libraries as a base for some types of community provision, there is a growing recognition of how libraries can support learning in a wide variety of ways. For example, approximately 25% of learners at colleges are pursuing Higher Education level work, some colleges also deliver degree programme on

behalf of universities (Adam Smith College delivery of some Abertay University programmes being a case in point). However, colleges do not have the funding to develop the equivalent of university libraries. Being able via the entitlement card to access facilities at public libraries without having to go through a registration process, will it is believed enable even stronger partnership working between colleges and the library service.

Conclusion

Thus, by sharing services, there is also the added benefit of extending the reach of most of the partners, and therefore delivering a higher service than before the advent of the National Entitlement Card. As one interviewee commented,

"*It's difficult to understand why we didn't work as closely as this in the past..... But I suppose that is testimony to the effect of this Project....... The card is perhaps more like a piece of glue keeping us all working together and reaching more people as a result.*"

Efficiencies and Effectiveness

For local authorities, a major issue is the efficiencies that can be gained by full engagement with the NEC. Using a SMART card for access to local authority services brings considerable efficiencies, not least avoiding the continuing and labour intensive process of registration at each service point that was the previous case.

In terms of the education sector however, Abertay's early experience suggests that efficiency cost savings, following the development phase, are likely to be modest. They include at present the saving of one full time equivalent member of staff, and savings in terms of card production compared to the previous matriculation card.

Effectiveness issues

However, if cost efficiencies are likely at best to be modest, the greatest gain is in terms of effectiveness. It is already clear the effectiveness is enhanced in the following ways.

1. **Clean records.** During phase 1, a key learning point to emerge has been the necessity for Abertay University to have clean, accurate records on each individual. This is also essential for partners. For example, Young Scot must have accurate date of birth records to ascertain whether or not the individual qualifies as a Young Scot, and because of the importance of this for commercial agreements with businesses willing to make discounts available, it is audited, as was mentioned earlier. The necessity for clean records that adhere to auditable standards, gives wider added value too, such as more reliable data for institutions and potentially for bodies such as the Scottish Funding Council.

2. **Stronger Data Protection.** A considerable amount of work was also undertaken in phase 1 to clarify all matters pertaining to Data Protection. Indeed two of those interviewed commented the work undertaken on this had already been of considerable value, and ensured all partners were fully compliant and fully understood all of the issues involved.

3. **Added Security.** Whereas in the past data may have been transmitted by email, there has now been established a protocol which requires the use of STP (Secure Transfer Protocol). This gives added security and protection both to institutional partners and also to individuals.

4. **Partnership Working.** Partnership working is strengthened considerably. All partners involved of necessity must coordinate services and understand each partner's requirements. Only through sharing appropriate information and developing close working can the National Entitlement Card be made to work. As one interviewee put it, "*the real added benefit for us has been greatly enhanced working with partners. To be honest, before this Project I did not fully appreciate the extent of Young Scot services, nor the possibilities opened up by having library provision in communities joined up to colleges.*" Indeed there is even evidence of the development of reciprocity arrangements, for example amongst some local authorities. This principle of reciprocity, arguably adds real value potential, as is discussed more fully in the next section of this report.

5. **Innovation.** The possibilities opened up by the National Entitlement Card are already helping to provide a platform for the development of innovative lifelong learning services. For example, John Wheatley College are hopeful of developing cultural entitlements via the card, and Dumfries and Galloway College better systems for engaging with local public transport. These and other innovate approaches are also transferable, raising the possibility of easily migrating an innovation at one college, to all colleges.

6. **The Outcome.** Most effective of all is the outcome. As already indicated, the National Entitlement Card enables the effective enrolment and matriculation of students in a system that eases their subsequent use of a range of learning services, and also a wide range of "citizen" services. This shared services outcome cannot be delivered through any alternative single system. The outcome makes practical and joined-up range of entitlements for the individual, while secure access that is robust and reliable for institutions. It saves time for the individual in not having to continually enrol in a traditional manner, which also saves considerable time for individual institutions in manual administration.

In our judgment, therefore, it is the effectiveness of the National Entitlement Card in supporting the cause of lifelong learning that is the predominant benefit of the Project.

Arising Issues

Thus far, we have outlined the benefits of the NEC Project. There are, however, a number of issues that require to be attended to in the subsequent phases of this Project. We consider these to be issues, rather than drawbacks, as some of the issues we are about to raise also present a range of opportunities.

1. **Reciprocity.** We believe from discussions there is much to be gained by the partners discussing in more detail the idea of reciprocity. With close partnership working, adopting a reciprocity model may well add real benefit. For example, the following areas seem fruitful avenues to pursue.
   a. **Business systems consultancy.** Discussions with John Wheatley College revealed a concern about how far their internal business systems would be compatible (or could be made compatible) with the requirements of card technology in such a way as to maximise benefit for college learners. The expertise available from Abertay (and Chris Milne in particular) was viewed as probably essential to tap into. It may be that a reciprocal arrangement could see the undoubted expertise of John Wheatley College in tackling issues of inclusion and engagement with traditionally hard to access socio-economic groups made available to Abertay University as it seeks to address similar challenges.
   b. **Technical consultancy.** The University of the West of Scotland were concerned to examine the extent to which the technical systems themselves could be brought together. In discussions, it was pointed out that many staff in local authorities had received training in the technical issues involved. It may therefore be possible for UWS to access technical advice, say from Dumfries and Galloway Council, in return for agreeing to participate in an early pilot related to the Crichton Campus initiative.
   c. **Funding.** Perhaps most ambitious of all was the suggestion that a reciprocal arrangement may be able to be created around extending the reach of local authorities and funding card production for education providers. Put simply, local authorities will both be extending their reach, and also doing so at zero administrative cost, via the signing up of students by colleges and universities. In return for this significant saving and contribution, local authorities might take on the cost of card

production, which they would have to do in any case if individuals sought the card directly.

The above are only three examples of where reciprocity arrangements may usefully be developed.

2. **Branding.** At present and related to the fact that not all boundary issues amongst Scotland's local authorities have been fully resolved as yet, the cards for phase 1 are branded for Dundee City Council, Abertay University and in some cases Young Scot. Only Young Scot branding is national. Current branding practice arguably creates barriers to the potential smartness of the card, limiting its use to individual institutions rather than seeing it giving "entry" to a national sector. It may be helpful for the colleges and university partners to discuss this issue and clarify what is most appropriate in the long term. One possibility may be to have a single lifelong learner brand common to all entitlement cards. It is understood that in the longer run, local authorities may consider adopting a single brand once boundary matters are appropriately resolved.

3. **SQA number.** From a lifelong learning perspective, enabling card holders via their SQA number, to access relevant SQA and related data may add to its attraction as a true lifelong learning card. One interviewee however indicated that when approached the SQA were not initially enthusiastic about the use of their unique number system. However, this may be an issue for colleges in particular to consider, with the possibility of inviting SQA in at an appropriate time as a partner.

4. **Short episodes of learning.** The college sector in particular delivers programmes in a great diversity of formats, and over a great diversity of time spans. It is probably the case at present that the expectation is that all those on full-time programmes would be enrolled via a card system, but that those who are only ever at the college for a single short course event via an employer would not. But there are a great many variations between these extremes. A key issue to be considered therefore is where the cut-off should come for the enrolment of individuals via the NEC. This is a matter that could be considered in phase 2 of the Project.

5. **Crichton Pilot.** Given Dumfries and Galloway College and UWS are already part of the Project, and furthermore are key players at the Crichton Campus. Given also they are part of a new joint venture in the provision of a common library service on campus for students, there may be merit in considering how far a wider Crichton pilot of the use of the NEC would be appropriate during the coming phases of this Project. This would enable further development of joint library

provision (although it may be necessary to invite Glasgow University to join any pilot at the campus). It would also provide an opportunity for UWS to join with Dumfries and Galloway College in advancing the use of the card for student transport purposes. This could then in small scale begin to pilot operations where colleges and universities worked as partners.

The above issues would seem to us both practical and important for the partners to consider, and they therefore feature in the conclusions and recommendations that follow.

Conclusions and Recommendations

The following are our conclusions and recommendations, based on the evidence and discussions presented in this paper.

Conclusions

1. Phase 1 of the Shared Services for Lifelong Learners through the National Entitlement Card has successfully delivered the key intended outcomes.
2. The Project is on track for delivering on-time and within budget.
3. The Project management of phase 1 has been robust and effective and is a key reason for effective delivery thus far.
4. The National Entitlement Card is not a government identity card.
5. The protocols and design features built in to the National Entitlement Card, and the intentions of all participating partners, are the principle safeguards against the National Entitlement Card developing into an identity card.
6. There is considerable evidence that the use of the National Entitlement Card by educational institutions will strengthen lifelong learning in Scotland.
7. There is evidence and also a strong belief amongst partners, that this Project will advance the cause of the shared services agenda in Scotland.
8. Through the participation of colleges and universities, the National Entitlement Card will significantly extend the reach of local authorities and other partners, achieving a much stronger inclusion of citizens of all types.
9. Although there are some real efficiencies that may be achieved by educational institutions, the principle measure of success is likely to be effectiveness. Through the National Entitlement Card, colleges and universities will be able to add considerable value to their lifelong learning provision.
10. There are a range of issues noted in this paper that remain to be discussed and developed.
11. Given the strength of phase 1 of this Project, there are very strong grounds for moving forward to the next phases of this Project as soon as practicable.

Recommendations

1. The Project partners should proceed to develop detailed proposals for phase 2 of this Project.
2. Proposals for phase 2 should take account, as appropriate, of this evaluation of phase 1.

3. Phase 2 proposals should in particular include scope for developing the thinking of the partners in relation to the following issues:
   a. Reciprocal arrangements aimed at securing a range of developments in a cost effective manner.
   b. Branding arrangements for the longer term to maximise the smartness of the National Entitlement card.
   c. Defining, possibly on the basis of the extent of the episode of learning, who should be enrolled in a college of university programme via a National Entitlement Card process.
4. Consideration should be given, by Dumfries and Galloway College, the University of the West of Scotland, Dumfries and Galloway Council and the Scottish Library and Information Council in particular, to the development of an all Crichton campus pilot, aimed at testing how effectively educational services can be developed on a shared basis through the National Entitlement Card.
5. Consideration should be given as to how beneficial it would be to engage with the Scottish Qualifications Authority for future piloting.
6. As practical activity develops during phase 2, there should be put in place an effective means of capturing the lessons being learned, and in particular those lessons that will assist in an eventual national roll out.

APPENDIX C: National Entitlement Card Board – information release NO2ID concerns

Information Release

National Entitlement Card Programme
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30th January 2009

Email:
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National Entitlement Card (NEC) Board: NO2ID Concerns

1.   This Information Note provides advice to councils in dealing with recent NO2ID issues that have been raised; newspaper articles in respect of civil liberties; and subsequent FOI requests to councils.

2.   The inference has been the NEC is a Scottish equivalent of the Home Office Identity Register and UK ID card. We have already demonstrated to those concerned that both technically and politically there is no similarity or connection between the two programmes. Indeed the NEC Board and councils themselves have every effort to provide accurate briefings to those that are concerned about privacy.

3.   **Annex 1** highlights the current use of the NEC across councils. We understand that there are some requests to councils for information about what services are available on the card – the Annex should help you with this. Councils have also been asked for what services the card is compulsory. It is not a compulsory card, however, we recognise that some councils have always used cards as a means of accessing services and for some councils the introduction of the Entitlement Card is simply a replacement for an existing card. Similarly, as new systems such as cashless catering, leisure and libraries move away from bar coded cards or magnetic stripe cards towards the use of smartcards, some councils have had to migrate towards a smartcard solution. The NEC helps with his process.

4.   The current situation has arisen because some councils, in writing to younger people, have indicated that the NEC is necessary for school meals. This is not the case, councils can provide alternative means, both as a permanent measure, e.g. a pin number, and as a temporary measure, e.g. if a young person should lose his / her card.

5.	We do acknowledge that there is some room for improvement in the communication between the NEC Board, councils and their customers in respect of how alternative means of accessing services can be promoted alongside the NEC, and this will form part of our revised Communications Strategy.

6.	We would like to highlight that the NO2ID Group is not opposed to smartcards. Indeed the Group has indicated that there are specific principles and requirements that can be implemented to underpin a secure smartcard scheme; and which can address the NO2ID issues and concerns about personal privacy and data handling. In particular the NO2ID Group has promoted the use of 'credentials' as part of a good card scheme, i.e. encoding products and codes onto the card, rather than storing data on the card and an associated database. The Board believes that the NEC conforms to those principles and has asked the NO2ID group for further information.

7.	Furthermore, at a Scottish Parliament briefing (for MSPs and others) the NEC Board was able to give a number of assurances to the attendees. In particular that:

- All citizens are given information about the NEC, that citizen consent was obtained; and that this consent could be removed by citizens. Indeed the wording for the consent process had been agreed with representatives from local government solicitors and from the Information Commissioner's Office.

- A further Terms and Conditions leaflet would be produced, which highlighted clearly to cardholders (and potential cardholders) that the NEC scheme complies with the principles of the data protection legislation and that the citizen's account data (the data for an individual's contact details – such as the name and address) was the minimum required to validate a customer and to be able to send a card (or replacement card) to a customer.

- The personal data captured was for the purpose of local government being able to deliver a range of local / national services to its customers.

- There was no 'customer profiling', i.e. that individual citizen transactions were **not** being monitored and stored against a citizen's account record for the purpose of analysing citizen use of the NEC. In particular, an assurance was given that individual travel journeys were not being monitored; the purpose of data collection was solely to be able to reimburse transport providers and to investigate potential fraud or abuse of the travel scheme.

8.	Taking some the most recent (and previous) comments in turn (***bold italics*** below), we have set out the Board's response to this.

'Education Chiefs have been accused of trying to force secondary pupils to carry ID cards by refusing to serve school dinners to dissenters ... council told parents children not carrying the electronic microchipped NEC will not be fed'

9.	This not true, the council offers students an alternative way of accessing meals.

Ministers want all Scots to eventually use the cards when dealing with local authorities.

10.	This is not the case. The Scottish Government supports the programme; is aware that it is a local authority owned, controlled and managed scheme; that it offers a managed

service to other parts of the public sector (such as Transport Scotland); that it underpins some important areas of government policy such as free travel, public transport or proof of age; and that it is part of a wider modernisation programme which utilises the value of new technology in delivering modern public services. The Scottish Government's overriding aim (as with their local government colleagues) is to ensure that citizens are able to get access to the public services to which they are entitled and that they are able to do this in a way that is convenient to them. This includes the use of smartcards to access services, when it is appropriate to do so, BUT not as part of any compulsory identity card scheme.

'More than a million [cards] have been issued'

'Around one-third of Scots now have these plastic swipecards, which are backed by a database and far reaching legislation'

11.   There are more than 1.4 million Scots with an NEC (the attached annex shows the numbers and the use of the NEC). The citizen account / card management database has been created for the purpose of managing the personal details of NEC customers, i.e. the minimum amount of data needed to validate a person and verify the requested entitlement, e.g. disabled travel concession. The 'database' is actually a simple record of cardholders and their contact details. There are two physically separate datasets (and 32 partitions across these data sets - each local authority being the data controller for its own records). Firstly, the dataset of personal details is held on one record – the citizen's account - and the citizen account application provides the facilities for councils and customers themselves to update that record, e.g. change of address. The second dataset holds details of entitlements (as a set of 'credentials' – to use the NO2ID terminology); these credentials being a product such as a concessionary travel ticket or a library membership number. **NO** personal transactional data is held on the system and there is no requirement for this.

'Scots who sign up get a unique number and their use of the card may be tracked by a computerised record called a Citizen's Account'

'Under Customer First, people are given a unique number and their use of the card may be tracked using a computerised record called a Citizen's Account ....An obscure piece of legislation – section 57 of the Local Electoral and registration Services (Scotland) Act 2006 – gave the Registrar General (RG) powers to help run the database ....It also allowed the RG to find, store and pass on personal information about Scots that may be useful to local authorities ....However, there are no boundaries set for the type and amount of detail held and the legislation does not insist on parliamentary scrutiny of his action....Campaigners believe the system is an ID card by any other name and will allow unprecedented surveillance of people's activities as more and more databanks are fed into the central structure'

12.   The 2006 Act is not obscure. For the first time, it gives the Scottish parliament control over the work which the Registrar General has done for 50 years: running the NHS Central Register. It specifies for the first time the information which can be held on the Register and the purposes it can be used for. These purposes include helping local authorities carry out their statutory responsibilities, but the Registrar General (RG) does not run, 'run their [citizen account] database': that is done by local councils themselves. The RG role is to provide the data which helps form the Unique Citizen Reference Number (normally the person's birth registration number) and to inform the local authority when someone dies, e.g. to prevent their account being used fraudulently.

13.   There are clear data protection compliance procedures in the processing of the citizen's account and the NEC data and these are explained to customers during the application / consent process, as well as being documented (as is required under the data

protection legislation). Citizen's can consent to data sharing (for the purpose of councils or other public service providers adding new services to which the customer becomes entitled or to pass on change of address / contact details). Equally customers can decide not to consent (or indeed to amend their consent). The data capture processes are actually very simple and relatively straightforward. When an application is made by a citizen, the address details are validated against a national gazetteer of property addresses, if the address is valid, a Unique Property Reference Number is assigned; the personal details (name, gender, date of birth) are validated by the RG (see par 12 above) and a UCRN is assigned. These checks are part of the validation / verification process to protect the system, to prevent duplicate or fraudulent applications and to prevent identity theft (e.g. an application made by someone who is using a deceased person's details or by trying to duplicate another live person's details). There is no surveillance and no databanks which feed into a 'central structure'.

The article (and previous articles) quotes Geraint Bevan of NO2ID:

'Children should be educated in a caring environment, not tracked like prisoners before they can even spell surveillance ...... parents should be aware that accepting a card means lifetime enrolment on a database – a high price to pay'

'Until now, it [the citizen account and NEC scheme] has been allowed to evolve into a dangerous parallel of the UK national identity scheme....Design decisions have been made by bureaucrats, resulting in a system that can record even the details of bus journeys made by children and pensioners'.

14.   Civil servants and public servants have been completely open and available for comment / discussion with groups such as NO2ID and have explained the purpose of the NEC (the NO2ID campaigners attended the parliamentary briefing and were given some reassurance about the Groups concerns). For example, assurances that customers were not tracked and that acceptance of a card resulted in the minimum amount of a customers details being stored on a card management system, i.e. only data that was required to issue or re-issue a card to a customer. In particular, it is a matter of public record that the purpose of the NEC in relation to travel is to reimburse operators for the cost of the journey and not to record customer journey details. Only where a customer was part of a formal investigation into fraud or misuse of the system, would a customer's use of the scheme be reviewed.

'Civil Liberties campaigners have won a review of Scotland's controversial microchipped entitlement card scheme. Ministers are to scrutinise the Project amid fears that it is a 'back door' to compulsory ID cards'

15.   Ministers agreed to a review of the citizen's account to seek an assurance on compliance with data protection legislation. This review has now been completed, and the report confirms compliance with the legislation as well as commending the system developers for the secure technical design of the system. The report does recommend some additional security testing as well as some enhancements to the documentation that underpins the system security policy and data handling procedures. These recommendations are being implemented. The report is available on the Scottish Government website

http://www.scotland.gov.uk/Topics/Government/PublicServiceReform/efficientgovernment/customerfirst/CAreview

'Opponents insist that, while the programme may appear harmless, it is almost identical to the Home Office's plans for a National Identity Register'

16.   Again, this is factually untrue – and disappointing given that assurances that have been given at the parliamentary briefing and at subsequent briefings. There was a concern that the NEC programme could be used as a data source for the Home Office National Register; again assurances were given that this was not the case. The inference here is that the citizen's account data set is the same as the National Identity Register and that the NEC is the same as the UK ID card. There is no connection – politically or technically – between the voluntary Scottish local government Citizen Account programme and the Home Office programme. The citizen's account system (CAS) is essentially a local government record which a council can create to give it an up to date set of contact details for its customers – and indeed a record that customers themselves will be able to see and change, e.g. a change of address. The NEC is a simple smartcard that holds products such as an electronic travel ticket, a cashless catering ticket or a membership number. The National Identity Register is a compulsory record for every UK citizen, where citizens must register and where biometric details of the citizen are held upon the register. This is designed to provide an absolute record that can confirm a citizen's identity.   Similarly, the UK ID card is intended to be a compulsory card that holds personal details, including biometrics, which is linked to the National Identity Register and is designed to ensure that a citizen can give absolute confirmation of his / her identity, i.e. by matching the biometrics from the customer (fingerprint or facial image) against the data held on the UK ID card or the National Identity Register. The Scottish Government has confirmed that the UK ID card will not be compulsory for access to devolved services. None of the functionality of the Home Office Scheme programme is possible using the NEC scheme, nor would it be allowed under the local government or Scottish Government's management of the programme.

17.   If there are further questions arising from the above, I would be grateful if you could email Craig at Craig.Smith1@improvementservice.org.uk.   Craig will collate any feedback and we will provide further updates, as necessary.

Jim Kinney
NEC Board
30, January 2009