

Citizen Information Project Feasibility Study

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1. Introduction

1. Work completed in summer 2002 by Patrick Carter, a member of the Public Services Productivity Panel, indicated that government could provide better services at lower cost if the same basic information about people was not collected and stored in the many different databases held by the public sector.

2. His study identified scope for:

- customer service benefits, enabling citizens to provide core data only once, and allowing government to deliver more personalised and targeted communications and services;
- gains in efficiency within the public sector by simplifying processing, facilitating matching of records, and reducing error;
- facilitating better joined-up and internet-based delivery of public services.

3. The Citizen Information Project (CIP) feasibility study has examined whether and how these benefits could be realised, by holding in one place a tightly-defined and appropriately verified selection of core information about people that would be widely used across the public sector.

2. Problem

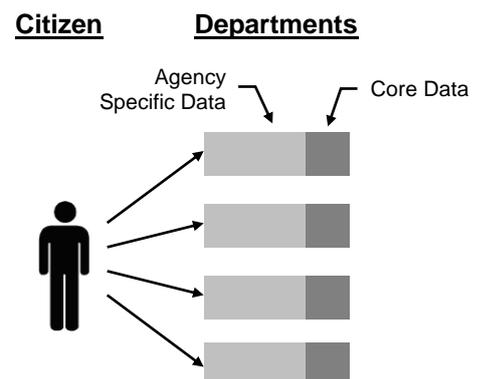
2.1. Current Systems

4. Across government numerous departments, agencies and local authorities need to interact with citizens.

5. Each holds records about people, usually in electronic databases. Many of these database records include the same set of core information – name, address, date of birth and often an alphanumeric identifier.

6. Within government, this is inefficient because each organisation duplicates the same information and dedicates resource to keeping this information up to date. When people change address for example, this has to be notified separately to numerous organisations that each have to amend their records.

7. Often records held by the public sector become out of date, as not all people notify all of government with which they interact when they move or change name. This leads to resources being wasted by government due to failed contacts and can result in individuals not receiving information or services to which they are entitled.

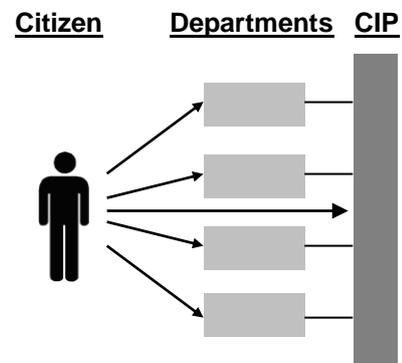


2.2. The Basic CIP Model

8. At the heart of the vision is a relatively simple concept derived from basic information management principles¹: benefit can be derived if a limited set of core information is held on a central database in the form of a **population register**.

9. Each public body that deals with citizens would, over time, adapt their systems so that they no longer stored this information themselves. They would link their own records, to the appropriate person's record on the register.

10. This proposal works with and aims to better coordinate a trend that is already developing in parts of the public sector. For example, DWP and IR are each bringing together their records relating to individuals. Also, local authorities are increasingly adopting a consolidated view of contacts with citizens in their area through customer relationship management systems. Similar principles underpin the creation of LASER, the Local Authority Secure Electoral Register².



2.3. The Population Register In Practice

2.3.1. The vision for individuals

11. Citizens will be able to approach any part of the public sector either face-to-face or electronically to change their name, or address, or both. The rest of the public sector would be informed of this change and their records updated appropriately. Similarly, if an individual contacts a part of the public sector for the first time, eg to make a first benefit claim, then their core details, held centrally, should form the basis for their record held within that organisation.

12. In this way, as well as reducing the effort in contacting government, it helps to ensure that people receive the right information and services at the right time.

13. Ultimately, individuals interacting with the public sector will want to be assured that they can view and amend any details that are incorrect, and that they are the only person who is able to initiate changes to their record. This security need requires identity authentication mechanisms to be part of the database, eg biometric and PIN data, and a set of agreed protocols concerning the authority to view, add or amend data.

2.3.2. The vision for public services

14. Many branches of the public sector will want to be assured that the person requesting a change to their agency-specific data is who they say they are. The identity authentication data will provide this assurance. Appropriate evidence supporting specific changes may also be required.

¹ Eg Scheer, A-W. (1991), Principles of Efficient Information Management, *Second edition Springer-Verlag Berlin Heidelberg New York*

² <http://www.idea.gov.uk/laser>

15. The existence of a comprehensive list of people in the country can support administrative and statistical functions, such as improved allocation of funding to local areas. The register would also act as the basis of new registers and databases developed to support new initiatives, without the need for them each to re-invent this wheel.

2.3.3. The growth of the population register

16. To reduce the risk to implementation and to minimise further duplication of effort, a population register would need to be built up over time, created initially from the large databases that already exist in government.

17. This study proposes that the UK Passport Service and Driver Vehicle Licensing Agency databases are used to derive the core database at the first stage of implementation, along with core data from the Department for Work and Pensions (DWP) in order to capture National Insurance Numbers (section 3.6 below). Applications would be linked to the register in a sequence yet to be determined, driven by cost-benefit considerations.

18. The population database would then be updated as births and deaths (and ideally emigration) were registered, and people came to live in the UK. Over time this would provide a register of citizens and others living in the UK more comprehensive and up-to-date than any currently available.

2.4. *Personal Details on the Population Register*

19. Very importantly, the vision is not about creating a comprehensive, centrally stored database on citizens, with pooled personal information such as medical records.

20. While the design of the population register could facilitate the matching of records held in different databases, it would not be possible for one public authority to link through the population register to look at records held by another authority unless specifically authorised and governed by legislation or regulation: “look up but not look through.”

2.5. Summary

21. The vision is a population register that it is at the heart of an effective system for sharing core non-sensitive data, reconciling discrepancies between the data held in different places, and identifying individuals and matching data. The population register is seen as a core building block in the e-Government Delivery Programme³ to help joining up, linking to key themes of better services and better information management that are at the heart of the e-Government strategy⁴. A report⁵ by the Performance and Innovation Unit concluded that there is great potential to make better use of personal information to deliver benefits to individuals and to society, including through increased data sharing. In particular, building a population register under the CIP will support initiatives such as entitlement cards, Citizen's Account, Single Sign-On, the identification, referral and tracking of children at risk, and Child Trust Funds.

22. These benefits will only be realised if people trust the way that public services handle their personal data. The proposal is to create a legal context to manage, facilitate and monitor and also, where right to do so, constrain information exchange in government. One important benefit of the register is that it will create a window for each citizen on a very important emerging area of government activity.

Examples of citizen benefits

- changes of name and address on marriage recorded by the local registrar would be available for all parts of government to use, without either the need to approach individual departments or to provide further documentary evidence
- one stop change of address on moving home, including to meet current statutory obligations, such as to notify DVLA
- someone returning to the UK after a period of travelling abroad would, with a single interaction, reconnect with all parts of government eg registering with (new) local authority on the electoral register and for council tax purposes
- tailored information about local public services made available on registering a change of address, including tax and National Insurance updates for people returning to the UK from abroad
- simple, quick and reassuring procedure to replace a stolen driving licence, processed via the internet without the need to spend time collecting and filling in forms in person
- receive reminder and simple reapplication procedure when passport is due to expire, avoiding the inconvenience of discovering that a passport is out-of-date when it is about to be used
- internet based claim for social security benefits can be supported, rather than having to make the claim face-to face
- registering the death of a relative would no longer need to be followed by notifying countless different government departments and agencies
- personalised government forms, provided with your name and address details already filled in
- simpler and speedier conveyancing when buying and selling property

³ [http://www.e-envoy.gov.uk/oe/oe.nsf/sections/ukonline-estategy/\\$file/contents.htm](http://www.e-envoy.gov.uk/oe/oe.nsf/sections/ukonline-estategy/$file/contents.htm)

⁴ e-Government Strategic Framework for Public Services in the Information Age, CITU, 2000

⁵ 'Privacy and data-sharing: the way forward for public services', PIU, April 2002

3. Implementation of the Project

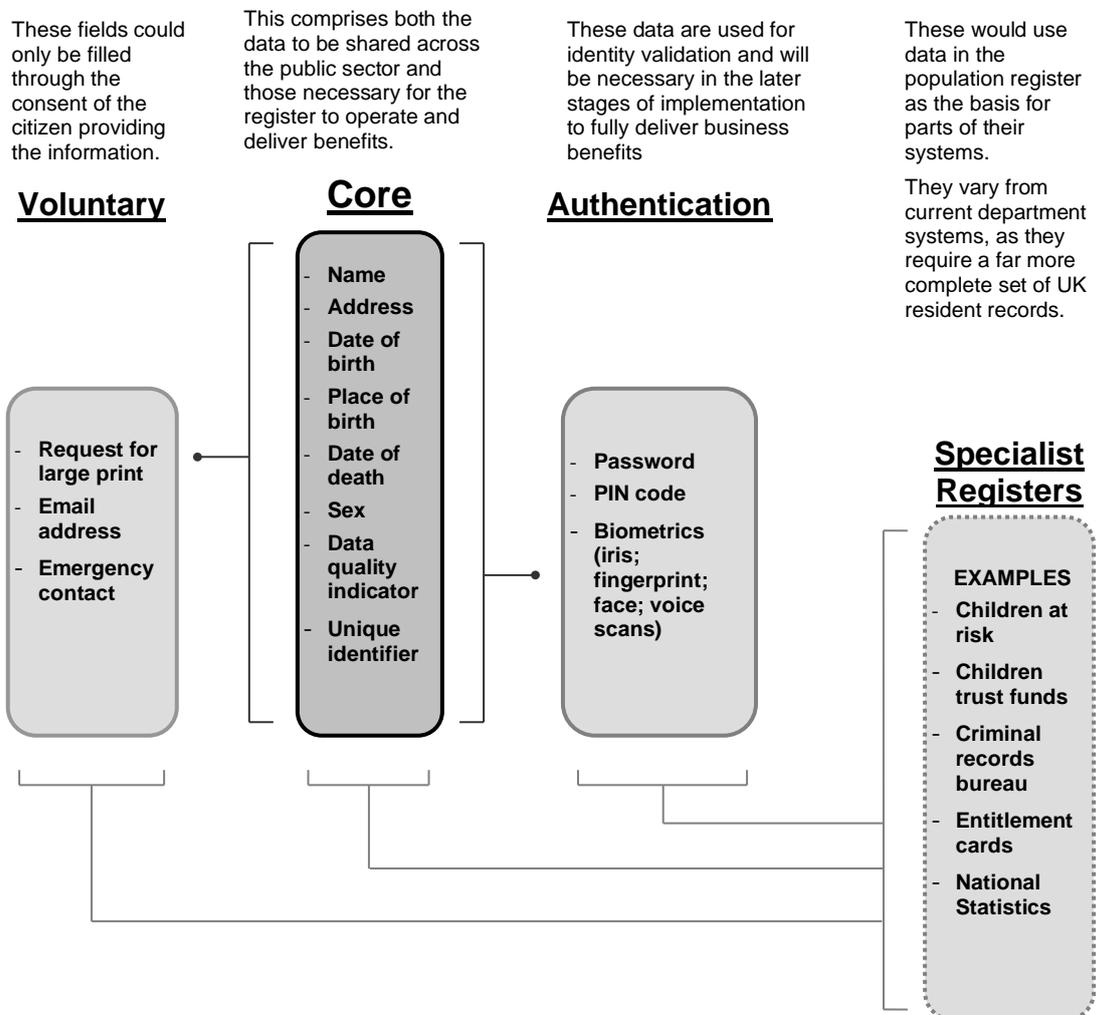
3.1. Key Aspects of the Project

23. The feasibility study recognises that the development of a population register is a very considerable undertaking. These are most notably the legal, technical and organisational dimensions of developing the population register after the model is worked-up further.

24. The development of a population register is a multi-dimensional challenge. It can provide a broad range of benefits to both citizens and government. These are possible through various elements incorporated into the population register. Not all of these elements are necessary, and each has specific affects on the dimensions mentioned above.

3.2. Citizen Information Project Design Elements

The diagram below illustrates the design elements that the population register could comprise of. The exact specification would be agreed at the next stage.



3.3. Key Benefits of a Population Register

25. The purposes of each design element, and the key associated benefits to citizens and government, are listed in the table below. The details were obtained through wide consultation with public sector partners.

CIP Design Elements	Purposes	Benefits to Citizens	Benefits to Public Sector
Core	Sharing Core Details	Less time and effort required on interactions with the state. Core data need only be provided and amended once for the information to disseminate across the whole public sector.	Reduction of resources required to collect and process core data changes in many public sector organisations.
	Data Accuracy	Improved interaction with government. Forms could be partially completed with reliable information.	Reduction of wasted resources on ineffective contact. [Eg Inland Revenue estimates each out of date address costs £40 in extra administrative costs.]
	Take-Up	It would be possible to target services and improve take-up in areas such as pensions.	More accurate contact of specific citizen groups. Eg target mailings about benefits entitlement.
	General/Macro	Efficiency savings can be utilised in other public service improvements.	The provision of statistical, administrative, and policy research. (eg a timely count of people living in local areas to support resource allocation)
Authentic ation	Identity Authentication	By reducing the need for presentation of proofs of identification, the time needed to interact with the state is decreased. Greater potential for remote access to services.	Supports the principles of E-Government. Reduction of certain types of fraud, eg using multiple identities. This has links to the entitlement card proposals.
Voluntary	Extra Details	More convenient and appropriate service provision (eg automatically send documents in brail to those registered as blind).	Information collected would provide better services to those fitting specific criteria.
Specialist Registers	Underpinning New Services	Greater quality of public services and the creation of hitherto infeasible services. Eg Child Trust Funds; Information, Referral and Tracking systems for children at risk.	Certain initiatives would be more feasible as they would not need to collect the basic information on the population register.

The benefits described in the table above can be categorized under two broad headings:

- Those connected to service improvement (eg targeted services) and those connected to efficiency (eg reduced interactions with the state).
- Those that would be apparent in the short-term (eg reduced duplication of data entry) and those that will only impact after a longer period of time (eg reduction in some types of identity fraud).

3.4. Cost-Benefit Analysis

We estimate that to put in place a population register would cost £13.35 million for development, £240 million for implementation, and £25 million a year for running the system.

The key factors involved in the formation and interpretation of the cost-benefit analysis of the project are listed below:

- Different government departments currently place different emphases on the need for accurate identity and address details. Departments were consulted about the benefits they could expect from the CIP. Some are expecting to address the basic problem set out earlier with short-term measures involving the private sector. For example, UKPS require stringent identity standards and is not presently geared to holding up-to-date addresses, although it is planning to use Equifax as a source of current address and identification information within the next year). Others do not currently require any form of identity or address verification (for example, the NHS).
- Although all departments would benefit in at least one of the ways listed in the “Core” section of the table above, not all of these benefits are efficiency based or currently quantifiable.
- The quantitative benefits for the uses of a population register beyond the “Core” element are hard to calculate.
- The estimates below therefore use only the “Core” element of the CIP and associated benefits, and are limited to a handful of departments at this stage. However, the cost of database expansion to allow for the later addition of the other key elements and access by other public sector users is minimal.
- Other government IT strategies are also in development. Cost sharing has not been fully analysed.

28. The population register is designed to support sharing of core data. However, it is important to note that it could also act as a mechanism to facilitate the exchange of data more generally. As already described, the register is designed for 'look up not look through' except in specific circumstances within an appropriate legislative and regulatory framework. However this potential use should not be overlooked.

29. This feasibility study therefore focuses only on the production of the core section of the population register and a limited user base. The resultant cost-benefit analysis is a conservative estimate that identifies sufficient quantifiable

benefits, relative to costs, to justify further consideration. Under the base case scenario calculated here, the project would break-even in year 15 (see table below).

30. With modest but untested assumptions about further benefits, summarised below, the project would break-even around years 10/11. We recognise several features here, such as long projected break-even points and how these can vary under different assumptions, which are common in attempting to build a robust cost-benefit analysis in the early stages of an infrastructure project. We propose that the cost-benefit analysis be closely monitored, updated and refined during the next stage of development.

Component, optimism adjusted	Value 15 years (£m)	Value 20 years (£m)
Costs, present value	498	572
Calculable benefits, present value		
Citizens	292	419
Government	232	429
Total	524	849
Net present value⁶	25	277

31. To add weight to the case, other areas that may yield substantial benefits include:

- **Fine enforcement.** Over one million offenders are fined each year in England and Wales. However less than 60% of the £140m imposed through fines are collected. Offenders whose fines go unpaid are likely to be adept at keeping their up-to-date address details away from the authorities eg bailiffs. Many are in receipt of state benefits. By providing one source of address information across the public sector, the Citizen Information Project could help improve collection rates. Offenders with outstanding fines would find it much more difficult to maintain an up-to-date address record in respect of benefit payments, while using an old or false address for the courts. On the assumption that, in time, a population register could provide half of the out-to-date addresses, then this would bring forward the project break-even point from year 15 to year 12.
- **Fraud.** This is an area that has not been explored in any detail during the feasibility stage of this project. Some benefit fraud, for example, relies on one person being able to use several identities to claim multiple benefits illegally. By creating a more accurate and tightly controlled database of

⁶ This excludes benefits as yet unquantified, eg further public sector efficiency gains.

core information, the Citizen Information Project could reduce the scope for such fraud.

- The **Child Support Agency** works to ensure that children receive sufficient maintenance from parents. Their target for 2002/3 was to collect maintenance and arrears from 71% of non-resident parents (achieved 72.9%). By creating a list of more up-to-date details of all those who interact with the public sector the CSA will find it easier and cheaper to find and contact those parents who do not make the payments required of them. It is worth noting that the CSA total debt portfolio is £1.4 billion, which has accumulated as a result of non-compliance with maintenance assessments.
- **Child Trust Funds** will provide every child born in the UK from September 2002 with an initial endowment at birth of £250, rising to £500 for children in the poorest third of families. There will also be the facility for extra money to be placed in the fund by individuals to supplement that provided by the government. To put this scheme into practice may require a central register of all recorded births.
- There are potentially very strong and beneficial links between the CIP and **LASER**, the Local Authority Secure Electoral Register project. Local authorities currently spend around £60 million each year maintaining the electoral register. Although the fundamental purpose of the two databases are different - those entitled to vote includes different groups from those lawfully resident, there could be a significant role for the CIP as a feed into the electoral register, which could lead to savings in the annual cost of register maintenance.
- On the assumption that public sector efficiency benefits in each year are double the figures used for the table above, as an indication of anticipated greater use across the public sector, then the project would break-even in year 11. Allowing for this plus the projected benefits for fine recovery gives break-even in year 10.

3.5. CIP Model

32. The above description of the CIP demonstrates that a population register should have a number of additional benefits, a number of which should can be quantified as the proposition is worked-up further. The report recommends that it is worth developing the CIP further.

3.6. Personal Public Service Number

33. A unique identifier is required to allow departments to link with the population register – ie for the register to function. A more ambitious programme would promote this number widely to citizens as a '*Personal Public Service Number*' (PPSN), similar to the way the US social security code is used, and to the model developed in the Irish Republic. This is the route we recommend is explored further, including as part of public consultation about a register.

34. One option is that a PPSN would be used as a single number for a citizen to interact with all parts of the public sector. Only one number (plus password) would need to be remembered by each citizen, rather than many as now. However, this is more than a technical detail: it could be seen as raising fundamental questions about the relationship between the citizen and the state. This will especially be so if, under the entitlement cards scenario, the PPSN was issued when identity is authenticated. There are issues of trust and reassurance, rights and responsibilities, convenience and efficiency, as well as concerns about privacy and self-determination of identity. We suggest that these need debating during consultation about a population register, as part of the project definition study⁷.

35. The unique identifier could be a new or existing number. Although a new number would have none of the authentication issues of an existing number, it would be costly to create and might be confusing to the public. Among existing numbers the leading candidates are the National Insurance Number (NINo) and the NHS Number (although this only covers England).

36. We recommend further work on the NINo becoming the new PPSN because:

- it is relatively familiar to the public;
- it could be improved relatively simply by adding a check digit;
- it would avoid the costs associated with creating a new number.

3.7. Managing the Programme

37. The programme to implement a population register is, and will remain, high risk. The route-map is consequently project based, working forward in a number of stages. This is to mitigate risk, enable control and fully embrace the Gateway process.

38. The first of these phases is project definition, which will more fully explore the project with departments, carry out work on the technical strategy and system architecture, and conduct pilot exercises to determine the optimum approach and refine cost estimates for the future stages. There will also be public consultation and work to develop the legislative programme. More on this can be found in section 5.7.1 below.

39. To carry out this approach will require a closely coordinated policy/programme team so that the complex policy and technical issues can be addressed in an integrated way. Len Cook, Registrar General for England and Wales, would be the senior responsible officer during the project definition phase, working closely with the Registrars General in Scotland and Northern Ireland and other stakeholders. ONS would build a multi-disciplinary team, led by the SCS project manager of the feasibility study, supported by contractors and through partnership agreements with stakeholder

⁷ There would also be appropriate consultation about the handling of several kinds of sensitive cases.

departments and agencies such as UKPS, DVLA, DWP and IR. In summary, the key features of the project definition stage are as follows:

Project Definition Stage

Key Outputs	Milestones
<ul style="list-style-type: none"> ▪ Detailed proposal (business case & technical architecture) ▪ Legislation ▪ Public consultation ▪ Implementation plan including LA involvement ▪ Pilot results ▪ Gateway Reviews 1 & 2 	<ul style="list-style-type: none"> ▪ Subject to PSX(E) approval to proceed: end June 03 ▪ next stage governance arrangements: end Sept 03 ▪ consultation period: Oct to Jan 04 ▪ initial pilots with UKPS/ DVLA: by Jan 04 ▪ Gateway 1 (business case, risk management etc and authority to proceed to PD stage II): March 04 ▪ legislation (alongside Entitlement Cards): Sept 04 ▪ second set of pilots: by Dec 04 ▪ Gateway 2 (technical architecture, readiness for procurement): Jan 05

40. During the course of the feasibility study, the project team consulted widely with public sector partners to ensure that the proposals for a population register were closely aligned with other developments across government. The most notable of these were entitlement cards, the Inland Revenue's proposal for a Single Debt Management Office (and the longer term proposals for a Citizen's Account), and the e-Government Delivery Programme led by the Office of the e-Envoy, particularly the development of Single Sign-On.

- If Ministers decide to introduce entitlement cards then the Home Office believes that the population register could support their introduction by forming the basic register of core data on which the rollout of entitlement cards would be based.

However, entitlement card does not need to go ahead for the population register to be viable. The cost benefit analysis does not include any allowance for savings to the overall cost of the entitlement card scheme.

Timescales between the two projects currently dovetail: the CIP first phase is to be on stream 2007/8 when, on the base case, entitlement card rollout would begin. It will be essential for the success of both projects to ensure that timetables continue to be kept fully integrated.

Although the entitlement cards require a separate decision, it is not envisaged that there would be a separate entitlement card national register and CIP core data after full entitlement cards rollout in 2012/13. This date coincides with proposed CIP IT systems refresh which would provide the opportunity to rationalise the two projects. The population register and the entitlement cards register would eventually become one and the same under this scenario, and would include the necessary biometric data to support the operation of entitlement cards (section 3.2).

An alternative possibility we have considered is that Ministers decide to proceed with the CIP and not entitlement cards. The CIP could then be used as the basis for helping to reinforce the policy objectives behind

entitlement cards - in particular, limiting the availability of illegal work – perhaps linked to UKPS's plans to link biometric information to the passport.

- The Inland Revenue foresees a similar role for the population register, if the Single Debt Management Office proceeds. The Inland Revenue envisages being able to quantify the benefits to their project of a CIP population register during the next phase of their feasibility study.
- The OeE proposals for Single Sign-On (SSO) are that a service user would sign on once and then be able to use a wide range of government e-services provided by many departments. Once authorised in a secure government environment, the citizen should not have to enter further details again. SSO requires authentication of individuals and the creation of a data-sharing environment across government, which CIP aims to provide. SSO therefore provides a real environment for piloting early benefits from CIP in supporting on-line government services.
- Under draft proposals, local public agencies may have access to information to know where all children and young people live, so they can ensure that all children access the healthcare and education to which they are entitled. An up-to-date population register could be an important part of this. The Identification, Referral and Tracking (IRT) system would draw core information (name, address, date of birth and unique identifier) from the population register on all children and young people aged 0-19. The unique identifier of the IRT (as in the population register) will need to facilitate look-up while prohibiting look-through in cases where the power to share data is either unnecessary or is not permitted as a matter of law or policy.
- Early indications from local government suggest that substantial benefits could derive from the Citizen Information Project, both for citizens and for the authorities themselves.

Perhaps most importantly, possible future links between the population register and electoral registration, and the delivery of improved information for local decision making and service delivery need to be explored.

The project team has engaged with ODPM and other organisations working with local government at a national level. These groups have expressed the wish to be fully involved in future developments. Links with local government stakeholders will need to be developed in the next phase of the project to ensure that their own strategies for the future dovetail with future developments led by central government.

- Address information is being increasingly standardised within the public sector. The National Land and Property Gazetteer assigns a unique reference number to each property in England and Wales (there is a similar project in Scotland). Project Acacia aims to produce a single infrastructure of definitive addresses across Great Britain. These projects

should provide a way of validating and standardising the address information to be stored on the population register.

- To complete the coverage of people, places and businesses, proposals have been made recommending a Common Business Directory and some work is under way on common standards and classification issues for basic information about businesses. There is a potential interaction with this population register proposal, to ensure that sole traders, partners in professional firms etc are treated consistently.

41. Even without these other projects, based on highly conservative estimates of benefits to government and citizens, the economic case for a population register remains strong enough to proceed to the next stage.

42. It is however important that decisions on these initiatives are properly co-ordinated. This would be done by a steering group chaired by the Registrar General, as senior responsible officer, and with representatives from key stakeholders, including devolved administrations and local authorities.

43. Detailed proposals for developing the Population Register are contained in the main report. A summary of these can be found in section 5 below. A project definition stage is crucial to future success of the CIP. It is expected to last 15 months from October 2003, by which time a project team would be assembled, and will consist of two stages costing £13.35M in total (£3.35/£10M). It is envisaged that these will be funded from the Invest to Save budget.

44. Ministers will be kept informed of the results of each stage. Gateway reviews will be conducted regularly. Implementation will only proceed once the underlying concepts are proven.

4. Population Register – Presentational Aspects

4.1. Public Perceptions

45. From research undertaken during the study, early indications of public opinion are mixed with both support and opposition. There would be broad support for a population register but strong concerns among a minority of the population.

46. Qualitative and quantitative research carried out by the ONS suggest support for the notion that data sharing should take place to avoid needless duplication, improve the efficiency of government and prevent fraud. Some respondents expressed surprise and even disbelief that such data sharing did not already take place within government.

47. A delivery programme has been developed which allows benefits to be derived from a population register that is neither compulsory, nor universal in coverage from the outset.

48. It is anticipated that the public service benefits can be made compelling enough to support a voluntary registration regime. Nevertheless, some sections of the public would need to be won-over at an early stage. Pressure groups are likely to take a close interest in the proposal. Public debate must be encouraged and a full consultation forms part of the communications plan for the next stage of the project.

4.2. International experience

49. International experience in other countries has shown the benefits of a population register, accepting that the way in which a population register is perceived may reflect cultural and historical differences.

50. Notable among these countries are the Nordic countries, each of which has had such a register for many years. Additionally recent experience in Ireland and Belgium is relevant to the CIP. In the case of Belgium, details of the population are held and used very much in the same way as envisaged by the CIP. This illustrates further that such a project is technically and organisationally feasible.

5. Proposal for the development of a Population Register

51. The main features of the proposed project, and the route-map for their implementation are discussed below. As noted above this focuses on the implementation of the “core” aspect of the register only.

5.1. Data Held on the Register

Information Held:

- Name
- Address
- Sex at birth
- Unique identifier (see ‘*Personal Public Service Number*’ below)
- Data quality indicators
- Date of birth
- Place of birth
- Date of death

About:

- All people lawfully resident within UK borders
- UK nationals living overseas
- Deceased citizens whose records are necessary for the efficient conduct of government business

52. The register allows multiple names and addresses and the associated role, eg for electoral registration purposes, to be grouped around the record for an individual. Changes of details would also be stored for audit and identification purposes.

53. As already stated, there would be scope to increase the amount of information stored on the register – so that it would, over time, draw on authentication data and could include voluntarily provided data.

5.2. Populating the Register

54. The register will be built up over time, initially using data from:

- UK Passport Service
- Driver & Vehicle Licensing Agency
- National civil registration systems
- Electoral register data (high quality address data validated against the National Land and Property Gazetteer)
- Core data from DWP/IR, to extend coverage and attach the NINo as the unique identifier.

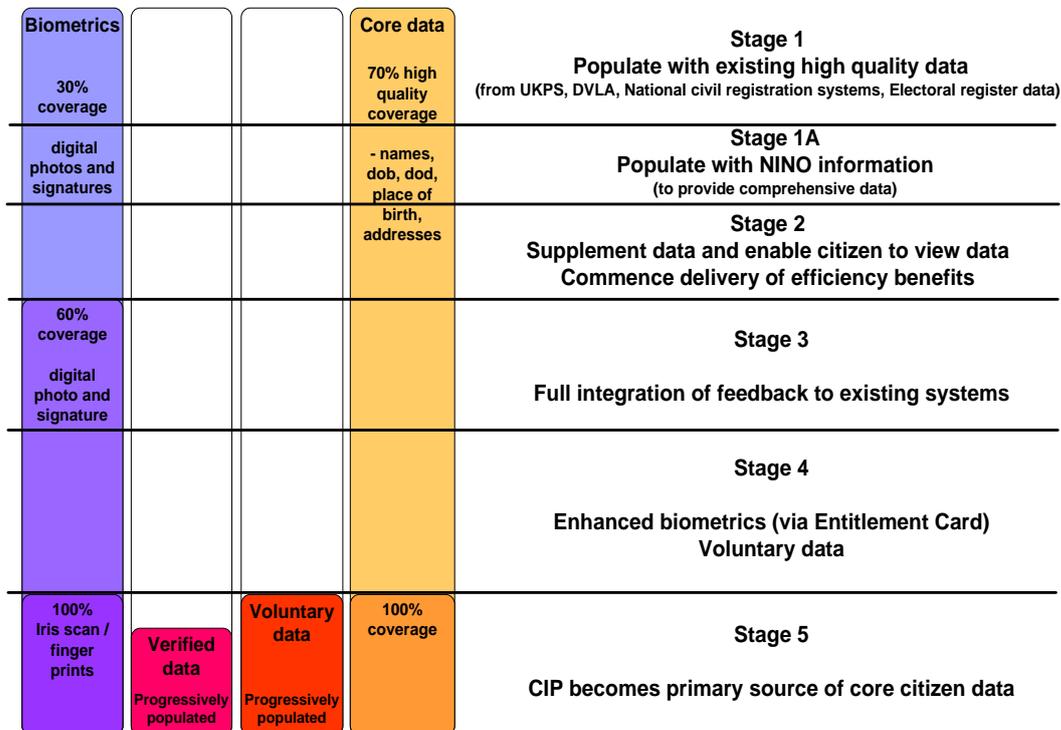
55. The stages for implementation are shown in the diagram below. The implementation plan indicates that such a population register could be up and running, and yielding benefits, within 4 years.

56. During the early stages, the primacy of core and authentication data will remain with the existing systems. Viewing and updating of citizen details will be via the public sector bodies owning these systems.

57. In the later stages, these attributes will be transferred to the population register, which will supply connected systems with the core data. This would be achieved either through an on-line link or automatic replication of changes on the connected systems.

58. Citizens are to be given access to directly view and, where appropriate, update their own information.

59. To aid the process of interoperability with other government systems, it is envisaged that the CIP will adhere to the standards and authentication work being pursued by the Office of the e-Envoy.



60. Voluntary data is currently added at stage 5, because this will entail a different set of considerations and interactions across the public sector, especially if the data has to be verified (eg disability registration). Although it may be possible to introduce this data earlier, to do so could increase project risk.

5.3. Coverage

61. We tentatively estimate **population coverage** could reach 95%, using the implementation route proposed. That is, 95% of people lawfully resident within the UK's borders at any a particular point in time would be covered by the databases used to build the population register.

62. At first glance, this compares favourably with overseas experience but would need to be further examined in the UK context. The next stage of work will need to develop a more nuanced understanding of the remaining 5% in terms of who it is likely to include, eg particular social groups. With further analysis in this area it should be possible to estimate the incremental cost of capturing all or part of the 'missing' 5%. This analysis will also need to explore the problem of 'register inflation', which happens when people emigrating remain on the register.

63. At this stage, **data accuracy** - how well the data on the population register reflects the 'real world' - is more difficult to define precisely and predict. This is, for example, because of uncertainties over the time taken to capture changes in address in existing systems and under the proposed approach.

64. The piloting phase of the project would yield better metrics on accuracy and is therefore crucial. We envisage pilot work using live data from a geographical area of the UK with a socially diverse population. This would allow testing of the (increasingly well developed) data matching techniques necessary to create the population register, and also enable better estimates of accuracy to be made in a UK context.

65. Questions of whether particular social groups are likely to be excluded disproportionately from the population register can also be better answered following the pilots.

5.4. Quality of Core Data

66. For each citizen record there would be a data quality indicator, which would show the level to which their core data had been verified. The indicators might show gold, silver or bronze.

67. The aim, over time, would be for the register to move towards more highly authenticated data holdings. The indicator provides a framework for assessing the data flows to and from the register.

68. The lowest, bronze level would apply to data from the civil registration systems and electoral register. From these sources, the existence of an individual is established but no authenticated identity data will be available.

69. Silver level might apply to current records for passport holders and drivers because these currently require a significant amount of authentication.

70. Gold would require the highest level of verification. This might only be reached when a citizen registers for a passport or driving license in person and electronic biometrics are acquired and linked to their record. Were the Home Office's entitlement cards scheme to proceed, it would require gold standard authentication. The consultation paper on this envisages moving towards such a position over a period of ten years.

5.5. Personal data and authentication

71. A precept on which the feasibility study has been conducted is that an individual's personal data on the register should be transparent to them or to their representative. An individual citizen should be able to check basic personal details that the state is holding on them. This will not only help with accuracy, but also with trust. However for privacy reasons it will be necessary properly to authenticate an individual before they are able to view such information. A higher level of authentication would be necessary before an individual could be permitted to change any of these details – for example address – if Government departments are to rely on the accuracy of the register.

72. We will continue to maintain close links with the Office of the e-Envoy during the project definition phase, so that the OeE's work on registration and authentication can be fully integrated for the benefit of this project. Such considerations do not just apply to members of the public viewing their own data on the population register. It will also be necessary to ensure there are strong and audited access controls for public sector employees.

5.6. Legislative Issues

73. It is important to the success of this project that it is fully compatible with data protection, privacy and human rights legislation, and seen to be so. The Information Commissioner noted the issues that would need to be addressed in his response to the Government's consultation on entitlement cards⁸. These include clarity of purpose and avoiding "function creep", accountability, security and data quality. Treasury Counsel has advised that primary legislation would be required to set-up a new registration authority and create the statutory gateways necessary for it to operate.

74. A recent letter from the Information Commissioner set out a number of issues he would wish to see addressed if work on the CIP proceeded to the next stage. In summary the Information Commissioner believes that:

- A central register raises privacy and data protection issues.
- Issues relating to identity fraud have not been sufficiently addressed – one set of personal data potentially leads to an increased risk of identity theft.

⁸

<http://www.dataprotection.gov.uk/dpr/dpdoc1.nsf/24afa328dcbf83d8802568980043e730/2924d87f53cb414180256cc5003fcd96?OpenDocument>

- Several issues are shared with the entitlement card scheme, however it and the CIP are being treated completely separately at present.
- There is a current lack of clarity on the precise remit of the collection and verification of data.
- The CIP could lead to 'function creep'.
- The practical difficulties that the project may encounter have not been fully explored.

75. Further close contact with the Information Commissioner and his office will be essential during the next phase of work as the issues that he rightly raises are explored more fully. In particular there will be a rigorous assessment of the more worked-up CIP proposal against Article 8 of the European Convention on Human Rights and the Data Protection Act 1998, building on the preliminary advice of Treasury Counsel.

76. In addition to removing ambiguity and the potential for legal challenge, primary legislation would allow concrete safeguards for the citizen to be enshrined in law. Legislation would also need to set out the role of the body charged with operating the register. One option is that the Office for National Statistics would manage the register. Whether it is ONS or another body, there would be a need for legislation essentially to ensure the confidentiality of data that are processed for statistical and research purposes. The PIU report⁹ recognises the value to statistics and research of initiatives in data sharing, linking and matching but also recognises the importance of maintaining public confidence in the maintenance of confidentiality of information about individual data suppliers, both individuals and organisations.

77. The most likely opportunities for CIP and related legislation are:

- alongside the Bill that would be required if Ministers decide to proceed with entitlement cards. A bid has been made for the 2003/04 session;
- as part of any legislation on privacy and data sharing, that the Lord Chancellor's Department may introduce in 2004/05.

78. The extent of coverage offered by the population register and the currency of the data held on it are linked to the degree of compulsion for citizens to register their existence or notify the state when their address changes.

79. There are a number of current obligations on citizens to interact with the state in order to keep their name and address details up-to-date (eg vehicle owners; electoral register updates). Life events are required to be registered. One option would be to introduce an over-arching legal obligation to register changes with the population register. However, we propose that this step is not taken, at least initially, because:

- it is likely to diminish public support for the population register;

⁹ See footnote 4

- it would be very difficult to enforce.

80. Key to this approach is the integrity of the Registration Authority as the sole authority that can effect changes to the population register. This authority will need to be delegated in order to ensure that the number of citizen interactions with the state is minimized. People will be able to file requests for changes to their core details via other parts of government or electronically.

81. In the absence of compulsion, voluntary registration would also need to be maximised through full identification and promotion of benefits to citizens. Exploring the feasibility of a population register is about more than understanding the technical and legal issues. Creating a population register raises fundamental issues about the relationship between the citizen and the state. The drive for greater efficiency, prompted by the need to constrain taxes and meet expectations about welfare spending, has to be set against changing civic attitudes about rights and responsibilities. Citizens both as tax-payers and as service users (or citizens who opt not to use public services) may be less receptive to well-meaning bureaucracy¹⁰.

82. Creating a population register can be seen as encapsulating this debate in a single issue: do we trust government to hold information in one place for use across the public sector in return for better services?

83. A crucial aspect of the project definition phase of the Citizen Information Project is the need to pilot the data matching using live records from the parts of government that will contribute to the creation of the population register. Once primary legislation is in place this presents no practical difficulties. Since the earliest legislation could be in place is summer 2004, alternative ways of allowing pilot studies to take place have been considered.

84. The pilots will be run on the basis of a relatively small number of records – no more than a few thousand – selected from a geographical area with a diverse population. In the absence of legislation the options are either:

- seek permission for the pilots from the Information Commissioner, or;
- obtain the agreement of the individuals concerned for their core information to be used in this way.

85. The first option should be explored further with the Information Commissioner at an early stage if work proceeds to project definition. The second option is feasible in terms of the mechanics (a mailshot to, say, 20,000 individuals should produce a sample of the required size). But it will only be possible to obtain permission from those individuals on whom an up-to-date record is held thus creating an inbuilt sample bias.

¹⁰ This draws heavily on a review of social policy context in 'Querulous Citizens: Welfare Knowledge and the Limits to Welfare Reform' (2003) by Peter Taylor-Gooby, Charlotte Hastie and Catherine Bromley, *Social Policy and Administration*, Vol 37, No 1, pp 1-20.

86. Further advice will be sought from Treasury Counsel during the project definition phase before commencement of the pilots, and in light in further information on the timing of legislation. We will explore whether pilots could run in the absence of legislation if conducted under highly controlled, confidential conditions. However, based on the experience of UKPS and DVLA, we believe the two options mentioned earlier provide the most likely routes for conducting the pilots.

5.7. Route Map for Implementation

87. During the feasibility study, particular attention was paid to the technical feasibility of the project and the way in which it would be managed. A logical data model was constructed as a first step towards defining the system and visits made to public and private sector organisations using large relational databases. At this stage the project does not appear to present large technical difficulties and a number of organisations have the capability to undertake implementation.

88. Nevertheless, this is a major IT project, so the lessons learnt from previous government projects have been incorporated. The project is broken down into a number of stages so that appropriate control can be exercised. Particular attention has been paid to risk and mitigating this risk.

89. The first phase – project definition – is effectively a risk mitigation exercise in which the technical concepts will be explored through the use of pilots. The results of these pilots will guide implementation in a number of areas, but already the project plans call for a stage-by-stage approach to implementation to avoid a “big bang” start. As such this project follows OGC Gateway guidance very closely.

90. As part of the feasibility study, the OGC undertook a Gate 0 (Strategic Assessment) review in February 2003. The project was assessed as Amber (*‘the Project should go forward with actions on recommendations to be carried out before the next OGC Gate’*). All of the recommendations have been addressed, either within the feasibility study or as part of the proposals for the next stage of work.

5.7.1. Project definition

91. This stage will more fully explore the project with departments, carry out work on the system architecture, conduct pilot exercises to determine the optimum approach, and refine cost estimates for the future stages. It will be the key to success in future stages.

92. This approach will require a closely coordinated policy/programme team so that the complex policy and technical issues can be addressed in an integrated way.

93. Len Cook, Registrar General for England and Wales, would be the senior responsible officer during the project definition phase.

94. It is important that decisions on related initiatives, such as entitlement cards and the single debt management office are properly coordinated. This would be done by a steering group chaired by Len Cook and with representatives from key stakeholders, including devolved administrations and local authorities.

95. This phase is expected to last 15 months once a project team is assembled at a total cost of £13.35m. It is formed of two stages:

Stage I: estimated cost of £3.35m (VAT exclusive).

96. Will establish that the:

- business case, including the cost benefit analysis for the project, is robust;
- major risks have been identified;
- project is likely to deliver its business goals;
- overarching technical strategy, architecture and modeling fully support the business case.

It is envisaged that this stage also prepares the way for later project stages, and that the public consultation exercise will be started.

97. An OGC Gateway Review 1 will be carried out to provide a check on progress for the team and sufficient evidence for Ministers that a second stage of project definition is worthwhile.

Stage II: estimated cost of £10.0m (VAT exclusive).

98. It is planned to directly follow Stage I and will:

- enable the public consultation exercise to be completed;
- undertake necessary technical pilots to confirm feasibility;
- formulate supporting legislation;
- finalise work on the technical architecture.

99. The programme management office will be strengthened to manage the pilots, plans, risks, quality and finance as well as effecting necessary liaison with Departments and preparation for the procurement phase.

100. An OGC Gateway Review 2 will be carried out towards the end of stage II, to provide help for the team and support for Ministers in taking a decision on readiness for procurement.

5.7.2. Project Implementation

101. This phase is expected to last 3-4 years at a total cost of £240m. The precise timing of this phase will need to be co-ordinated with other developments across government including entitlement cards.

Implementation involves several key stages of work:

- Main Development, hardware acquisition, preparing premises for the register and installing support equipment.
Engineering system links and departmental integration. Assembling initial core database. Recruiting data staff, including staff to work on data cleansing. Training.

The population register would be held under a new Registration Authority (eg as part of the Office for National Statistics, although there are other models)

- The Registration Authority would initially work in partnership with the Registrars General for England and Wales, Northern Ireland, and Scotland, the UK Passport Service and the Driver and Vehicle Licensing Agency. Partnership arrangements would be established. These partnerships would help set standards for identity and verification. They would also help supply initial information with which to populate the register. DWP would be added to the departments linked to the register immediately after assembly of the initial core database to effect a link to the NINo.
- Other departments would join the register – providing information where appropriate and using the core data in their own systems.
- Other elements could then be added to the register as appropriate.

5.7.3. Population Register Maintenance

102. This involves maintenance of the systems and resources required and staffing costs. The expected annual costs are £25m.

5.8. Risks

103. Large cross-departmental technology projects are high risk. An independent risk specialist reviewed the entire project as set out in the feasibility study. Key aspects of this work are summarised overleaf.

Category	Example Problem	Means of Risk Mitigation
Political	Low perceived public value and subsequent lack of support and acceptance	Full public consultation involving parliament at an early stage.
Strategic	Insufficient departmental uptake	Close collaboration with departments. Departmental involvement in future project team.
Budgetary	Project overspend	Define project scope to reduce 'function creep'. Early piloting phase. Conservative cost-benefit analysis.
Project Management	Big project risk	Breakdown of project into manageable stages. Continued compliance with OGC Gateway process. Ministerial reviews at strategic points.
IT	Systems do not perform as expected	Carry out pilots. Close coordination with e-Envoy Office to ensure project conforms with all government standards. Close collaboration with strategic IT developments across government (eg single debt management office).