



THE GOVERNMENT REPLY TO THE SIXTH
REPORT FROM THE HOUSE OF COMMONS
SCIENCE AND TECHNOLOGY COMMITTEE
SESSION 2005-06 HC 1032

Identity Card Technologies: Scientific Advice, Risk and Evidence

**Presented to Parliament by the Secretary of State
for the Home Department
by Command of Her Majesty
October 2006**



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HOUSE OF COMMONS SCIENCE AND TECHNOLOGY COMMITTEE: “IDENTITY CARD TECHNOLOGIES: SCIENTIFIC ADVICE, RISK AND EVIDENCE” (SIXTH REPORT OF SESSION 2005-06)

The Government’s response

Terminology

At the end of March 2006 the Identity Cards Bill received Royal Assent and became the Identity Cards Act 2006 (“the Act”). On the 1st April the Identity and Passport Service (IPS) was formed from the Home Office Identity Cards Programme and the United Kingdom Passport Service (UKPS). The projects and staff within the Identity Cards Programme were transferred to projects within IPS. As some of the events referred to in this document occurred before April 2006, “IPS” and “the Identity Cards Programme” are used interchangeably to refer to the projects set up to deliver the identity cards scheme.

Introduction

The Government welcomes the report of the House of Commons Science and Technology Committee¹ (“the report”) which focused on the Home Office’s Identity Cards scheme as part of a wider inquiry into Government’s treatment of scientific advice, risk and evidence.

The Committee announced a broad inquiry into the handling of scientific advice, risk and evidence in policy-making in November 2005², looking particularly at:

- i. Sources and handling of advice
- ii. Relationship between scientific advice and policy development
- iii. Treatment of risk
- iv. Transparency, communication and public engagement

The report focused on the Identity Cards Programme’s treatment of scientific advice, risk and evidence on some aspects of which the committee made recommendations or asked for assurances. The report also endorsed the approach taken by the programme in a number of key areas.

The nature and scope of the committee’s inquiry meant that it focused on certain areas of the Government’s plans for Identity Cards. The challenges of introducing identity cards include legislative and policy challenges, the integration of new and old business practices, creating the right communication and stakeholder engagement strategies, and creating the right financial and charging frameworks, as well as the challenges of setting the right requirements in the areas of technology, ensuring the best scientific advice is properly used and communicated and that a sensible approach to risk is taken. The report was chiefly concerned with the area of overlap between the committee’s inquiry and the work of the Identity Cards Programme and is not an assessment of the entire programme.

The Government thanks the committee for their report and for the considerable work that went into the inquiry and the preparation of the report. It welcomes the committee’s scrutiny and analysis of the Identity Cards Programme and

¹ “Identity Card Technologies: Scientific Advice, Risk and Evidence” 4 August 2006, HC1032, <http://www.publications.parliament.uk/pa/cm200506/cmselect/cmsctech/1032/103202.htm>

² Scientific advice to Government inquiry, 9 November 2005, http://www.parliament.uk/parliamentary_committees/science_and_technology_committee/scitech091105.cfm

would like to reassure the committee that their concerns will be considered very carefully and that it will endeavour to act on its recommendations.

The Conclusions and Recommendations

The report makes several general observations and recommendations (paragraphs 142-145 of the report). These will be discussed and then the 43 specific conclusions and recommendations drawn from the body of the report will be addressed.

The report's conclusions begin by noting several areas where the committee recognise that the programme is following good practice in the treatment of scientific advice and evidence, including:

- i. The establishment of committees of experts
- ii. The use of OGC (Office of Government Commerce³) Gateway Reviews
- iii. Holding discussions with international experts
- iv. Committing to the trialling of technology
- v. Taking a cautious approach to the scheme and implementing it gradually

The Government welcomes the Committee's recognition of IPS's good practice in these areas.

The report said that the programme's science agenda had "concentrated on biometrics" which appeared to have "detracted attention from other technological and scientific aspects of the programme" and that the assurance processes and governance of ICT (Information and Communications Technology) were less well developed than for biometrics and that the programme's thinking on ICT was not being developed in consultation with other departments.

A relatively higher level of effort in the development and assurance of the biometric requirements for Identity Cards than for other areas of technology is justified. Biometrics is an area of technology which is less mature than the bulk of the technology which the scheme is likely to use such as databases and communications networks. For this reason our risk management processes have identified more risks to do with biometrics than for some other areas of technology and the treatment and mitigation of these risks requires more effort. For similar reasons the House of Commons Home Affairs Committee singled out biometrics for scrutiny in their 2004 report on Identity Cards⁴.

The report also argued that the biometric solution is being prescribed to the supplier market in some detail whereas for the bulk of the ICT needs the requirements being put to the market are more 'output-based'.

Both the ICT and the biometric technology will be constrained by legislation, government policy and the international standards and conventions adopted by the scheme. In the area of ICT, these standards and policy choices are defined in part in documents such as the e-GIF⁵. However, in the case of biometrics there are fewer agreed standards, so the procurement will have to be more prescriptive in order to be sure of getting proposals from suppliers which meet the requirements.

The areas of biometric technology in which IPS is being prescriptive are chiefly around the data storage and exchange standards (as opposed to how the matching is done, for example). This is driven by the programme's interoperability

³ <http://www.ogc.gov.uk>

⁴ House of Commons Home Affairs Committee: "Identity Cards" Fourth Report of Session 2003-04, HC 130-I, paragraph 175, <http://www.publications.parliament.uk/pa/cm200304/cmselect/cmhaff/130/130.pdf>

⁵ e-Government Interoperability Framework Version 6.1, <http://www.govtalk.gov.uk/interoperability/egif.asp>

requirements and the need to adhere to international standards. For example, compliance with ICAO (International Civil Aviation Organisation) recommendations⁶ for MRTDs (Machine-Readable Travel Documents) require the Identity Card to store certain biometric data in a certain format and thus make it necessary to set these requirements on the scheme's suppliers.

Recommendations were made that:

- i. The scheme should use a system architect and that an ICT assurance group should be established
- ii. The programme should recognise the need for ongoing communication with stakeholders particularly in the areas of science and technology and that it increase clarity and transparency in those areas identified as being problematic.
- iii. The programme should recognise the importance of trialling and if trials indicate that changes should be made to the programme that these changes are made even if they impact the delivery timetable.

The committee made a number of statements relating to the establishment of an ICT assurance group. In particular (paragraph 55 of the report): "We welcome the balance of in-house and external advice regarding biometrics and recommend that a similar approach is used for ICT ... We recommend that the Identity and Passport Service establish an ICT Assurance Committee consisting of academics and industry experts and that this committee reviews the programme specifications relating to ICT".

The committee also made some recommendations on the governance and the relationship with academia of such a group and its role in overseeing trialling:

"...if appropriate, that the Chief Information Officer chair the ICT Assurance Committee" (paragraph 57),

"...we recommend that the Home Office uses the ICT Assurance Committee in order to fully engage the academic ICT community" (paragraph 61),

"...take advice from the ICT Assurance Committee on trialling" (paragraph 95).

The committee also acknowledged the roles played by the Independent Assurance Panel and the Science and Technology Reference group in providing assurance on ICT but argued that a specialist ICT assurance group would be able to better serve the needs of the Identity Cards Programme.

The Government is aware that this recommendation is central to the committee's report and that the committee have given this a considerable amount of thought. The Government understands the powerful arguments made in the report for consolidating and strengthening the ICT assurance of the programme and accepts this recommendation. The Government believes that the Government CIO and the Home Office CIO should be at the core of IPS's ICT assurance arrangements and that this would provide the best advice on ICT as well as getting best value from existing resources. Officials from IPS have begun setting out options for the formation of the group, including how it might consolidate existing advice on ICT such as that from the Independent Assurance Panel. It is difficult to put a firm timescale on the establishment of the group but the Government is fully aware that, in order to be useful, the group would have to be established early enough to influence technical policy and architectural decisions during procurement.

⁶ In ICAO 9303-3 (ICAO publications can be purchased from <http://www.icao.int/>)

On the need for ongoing communication with stakeholders, we will continue to work with our public and private sector stakeholder organisations. In the past this was done through bodies such as the programme's Private Sector User Group and the Foresight Cyber Trust and Crime Prevention Programme⁷. Currently the main avenues for this are:

- The Public Private Forum on Identity Management⁸; The Chancellor of the Exchequer recently appointed Sir James Crosby to chair this group which has been asked to review the current and emerging use of identity management in the private and public sectors, identify best practice, and to consider how public and private sectors can work together. The overarching themes of the group are the security of identity and cross-cutting issues of identity management across government. This forum will report to the Chancellor of the Exchequer and the Ministerial Committee on Identity Management. IPS has produced a digest of current Identity Management initiatives in the Public Sector for the chairman of this group, and developed a questionnaire for industry bodies in the Private Sector to help inform this group about the key issues in identity management and where the leading innovators and adopters are in the Private Sector.
- The Identity Fraud Steering Group⁹, which acts as a vehicle to promote closer public and private sector collaboration to combat identity fraud, coordinates efforts and ensures that resources are targeted to resolving problems. This group has members from across government and relevant areas of the private sector, e.g. APACS (the UK payments association), and the British Bankers' Association.

In addition, IPS is engaging with other government departments to form partnerships to develop identity cards applications which meet their specific business needs. This work will inform the broader design of the identity services offered as the scheme is rolled out.

With regard to the recommendation that changes to the programme suggested by the results of trials should be implemented "even if they impact the delivery timetable", the Government's priority is that the programme should have a sensible and practical delivery timetable rather than be focused on chasing unrealistic delivery dates. Trial results need to be used in a pragmatic way and should not distract from the need to deliver a workable solution in a timely and cost-effective manner. It would not be realistic to rigorously test everything before the scheme 'goes live' to the point where the Government can be sure that no further changes need to be made to the design of the scheme. Also, some parts of the solution will not be tested but will use 'off-the-shelf' technology that has been adequately tested elsewhere.

The rollout of the scheme will be incremental and the technology used and the design of the scheme will evolve over time subject to strict change control. From the launch of the scheme the Government will be learning lessons and will use these to control the speed of the incremental rollout and inform the scheme's ongoing technology refresh and process redesign.

Finally, the overall conclusions of the report concluded that "If appropriate changes are made, the identity cards scheme could still become an example of good practice in the handling of scientific advice, risk and evidence". The Government believes that this is already the case and fully agrees with the

⁷ http://www.foresight.gov.uk/Previous_Projects/Cyber_Trust_and_Crime_Prevention/index.html. This was set up to use the best available science to explore the application and implications of the next generation technologies. Its work was commissioned by the Office of Science and Technology but its findings are independent of Government and do not constitute Government policy

⁸ The announcement of this forum:

http://www.hm-treasury.gov.uk/newsroom_and_speeches/press/2006/press_51_06.cfm

⁹ <http://www.identity-theft.org.uk/index.htm>

importance to the success of the programme of the continued use of good practice in the handling of scientific advice, risk and evidence.

Stakeholder engagement

Consultations

1. The Home Office has consulted the wider community and has tried to apply best practice in this area. However, stakeholders are not satisfied with the nature of consultation and feel that consultations have been unduly limited in scope with unclear evidence gathering objectives. As a result, the wider community does not have the level of confidence in the scheme that could be expected following a successful consultation process. (Paragraph 31)

2. We recommend that the Home Office undertakes future consultations on scientific and technical issues as well as the procurement process. (Paragraph 33)

In addition to the programme of social science research which is referred to in the response to paragraph 34 of the report's conclusions, the Government has consulted widely on both the policy underlying the identity cards proposals and the legislation itself. The original consultation¹⁰ was published in July 2002, and the Government published a summary of its findings¹¹ in November 2003. One of the findings, for example, was that the public reacted negatively to the term "entitlement cards", which led to the change in terminology to "identity cards". There was further consultation in April 2004¹². This included a draft Identity Cards Bill, which was the subject of Parliamentary scrutiny by the Home Affairs Select Committee in the course of its inquiry into identity cards. The Home Affairs Committee's report and the findings of the consultation, which were published in October 2004¹³, resulted in significant amendments to the draft Bill.

The procurement strategy market soundings exercise was launched in October 2005 to seek the views of the industry on procurement and implementation options for the National Identity Scheme. There were two clear objectives to this exercise: to provide all interested suppliers with the opportunity to comment on developing procurement strategies, and to gain a representative view of the market's reaction to the developing procurement strategy and the technical viability of the programme.

This exercise was widely advertised (via a Prior Information Notice published in the Official Supplement of the European Journal¹⁴) and resulted in 67 completed questionnaires being received. The programme held clarification meetings with a number of respondents to explore views expressed. All participants were provided with interim feedback¹⁵, and the full results were published in August 2006¹⁶.

¹⁰ "Entitlement Cards and Identity Fraud", CM 5557,

http://www.identitycards.gov.uk/downloads/entitlement_cards.pdf

¹¹ "Entitlement Cards and Identity Fraud – the Government's response to the consultation points", CM 6019,

http://www.identitycards.gov.uk/downloads/governments_resp_031111.pdf

¹² "Legislation on Identity Cards: a consultation", CM 6178,

<http://www.identitycards.gov.uk/downloads/2004-04-26-Legislation-on-Identity-Cards-a-consultation.pdf>

¹³ "Identity Cards: A Summary of Findings from the Consultation on Legislation on Identity Cards", CM 6358, http://www.identitycards.gov.uk/downloads/id_summary_doc_3.pdf

¹⁴ OJEU reference: 2005/S 154-154064

¹⁵ "Procurement Strategy Market Soundings (Interim Feedback)",

http://www.identitycards.gov.uk/downloads/Procurement_Strategy_Market_Soundings_Update-December-2005.pdf

¹⁶ "Procurement Strategy Market Sounding (PSMS) Feedback",

http://www.identitycards.gov.uk/downloads/AugustPSMS_ProcurementStrategyfeedbackfinal.pdf

During any market sounding process, it is vital to ensure that a ‘level playing field’ amongst suppliers is fully preserved and that no supplier is given, or is perceived to have been given, an “inside track” or “unfair advantage” for any subsequent procurement. To achieve this aim for this activity, the exercise defined clear procedures for engagement with suppliers and other parts of the market. In essence, this can be summarized as follows:

- No advice or guidance should be given that might lead to suppliers drawing conclusions about the shape of finalised requirements.
- Information must not be revealed that is not publicly available.

The need to maintain this ‘level playing field’ naturally placed some constraints on the scope and nature of the consultation. However the market was fully engaged in aspects that the programme considered at that point in time to be key areas and where market input was required, in particular: biometrics technology, smartcard technology, ‘matcher’ performance, data centre availability, smart card durability, procurement strategy, programme viability and secure product delivery. Consultation was not sought where requirements were already defined by existing legislation and standards, e.g. ICAO recommendations on MRTDs. The output from the market soundings has helped to shape the procurement strategy and inform the subsequent procurement process.

IPS recognises the vital contribution that the market has to make to the success of procurement and is committed to ensuring appropriate engagement with stakeholders. In line with good practice for large and complex procurements, the market will have appropriate further opportunities to fully engage with the project team during any procurement activity. This may include industry days either before or after the publication of relevant notices in the Official Journal of the European Union (OJEU); an approach that has already successfully been used by the IPS contact centre procurement team to engage with interested bidders.

Alongside the consultation on technical matters which has been done as part of the procurement process, the Identity Cards Programme has had ongoing consultation with technical experts from NPL since 2002 which has been used to test and inform the programme’s requirements. The procurement and legislative work built on contacts with Intellect made before the first consultation documents were issued.

3. We conclude that the processes by which scientific advice is incorporated into policy are not completely transparent and that organisations are not receiving feedback regarding their advice. We urge the Home Office to fulfil their welcome commitment to make it clear how and what advice has been incorporated into the development of future policy, particularly the technical specification. (Paragraph 36)

The results of our detailed market engagement exercise, which focused on the procurement strategy for Identity Cards, were published on 3 August 2006. Also published was the Intellect ‘Concept Viability’ report that was commissioned as part of the exercise, giving anonymised industry views on the published information¹⁷.

The publication gives a clear overview of the advice and feedback that has been received and provides information on key areas that have been considered further and which have influenced the development of plans. Specifically this includes the adoption of a more incremental approach and alterations in the proposed packaging to help address technology integration risk across contracts. It also gives clarity where possible on many of the issues raised by industry, such as

¹⁷ Both available at <http://www.identitycards.gov.uk/working-suppliers-procurement.asp>

the need for strong governance and the scope of procurement packages. IPS also made a clear commitment in this publication to update the market as its plans develop and has ensured that all those involved are aware of the publication.

In some areas where IPS has asked for scientific advice this has been published, such as the first NPL feasibility study¹⁸. The subsequent UKPS biometric enrolment trial which was done in response to the study's recommendations demonstrates the Government's use of external advice in shaping the programme. In some other areas, including some of the detailed scientific and technical advice the programme receives, the advice feeds directly into the scheme's requirements. In these cases, full transparency on this advice is impossible until after the requirements have been published, and for this reason it may not be possible until then for the committee to properly judge the programme's transparency.

Clarity

4. We are aware that political pressures inevitably impact on the scheme, but it is highly regrettable that the emphasis on different aspirations has changed. This has created uncertainty for the public and industry alike. We hope that the situation will stabilise now that the Bill has received Royal Assent. (Paragraph 37)

5. We urge the Home Office to finalise the scope of the scheme and the technical standards needed for interoperability as soon as possible. (Paragraph 42)

The programme has been in existence for some time and the intention that the scheme provides a safe, convenient means of identification has not changed, nor have the statutory purposes. It is inevitable that discussions about a scheme that provides benefits in many areas is wide-ranging and will from time to time have a particular emphasis, especially where the scheme is being discussed in the context of a particular issue such as immigration control or combating the increased risk of identity fraud. But if one looks at the range of uses of the scheme set out in the consultation paper published over four years ago, it is consistent with what has been enshrined in legislation.

The statutory purposes, which can only be changed with the agreement of Parliament, are:

- the provision of a convenient method for ... individuals to prove registrable facts about themselves to others who reasonably require proof; and
- the provision of a secure and reliable method for registrable facts about ... individuals to be ascertained or verified wherever that is necessary in the public interest.

The definition of the public interest, which again can only be changed with the agreement of Parliament, is:

- in the interests of national security;
- for the purposes of the prevention or detection of crime;
- for the purposes of the enforcement of immigration controls;
- for the purposes of the enforcement of prohibitions on unauthorised working or employment; or
- for the purpose of securing the efficient and effective provision of public services.

¹⁸ http://www.identitycards.gov.uk/downloads/feasibility_study031111_v2.pdf

Regarding the technical standards needed for interoperability, the Government has already given a commitment that the Identity Card will comply with ICAO recommendations for MRTDs which implies a detailed set of technical specifications for the card and interoperability with equipment designed to read other travel documents. Further, while data and communications standards have not been specified, the Government can assure the committee that they will be constrained by the choices allowed by the e-GIF.

6. In order to clarify when and how the card might be used, we recommend that the Home Office releases more information regarding what personal data will be revealed in different scenarios, including in an online context. Until this information is released, it is difficult to ascertain the true scope of the scheme and to fully understand how technology will be used within the scheme. (Paragraph 45)

Until the card has entered widespread usage for identity verification it is impossible to say exactly what processes for checking identity will be used and what pieces of identity data might be used by different organisations. However, the use and storage of identity data is constrained by the Identity Cards Act (for example, section 12 of the Identity Cards Act¹⁹ lists those items of information which may be provided from the National Identity Register for the purposes of identity verification) and existing data protection legislation. Paragraph 40 of the report suggests that there exists some confusion between ministers on whether medical data will be stored either on the National Identity Register or on the card. There is no confusion; Ministers have stated that no medical data will be stored in the database – that is to say, the legislation does not mandate the storage of any medical data. However, the legislation does permit the cardholder to apply for any data to be stored voluntarily and so there is potential for an individual's record to contain, for example, their organ donor status, should they wish and should this be permitted by the scheme.

There appeared to be confusion among witnesses in the inquiry's oral evidence session about the purposes for which data was held on the card and what data might be revealed when the card was used. A comment was made that in order to show that an individual was over 18 or over 65 it was not strictly necessary to have date of birth on the Identity Card and that this was an inappropriate disclosure of identity data²⁰. The date of birth is to be put on the Identity Card in order to comply with ICAO recommendations on MRTDs (as with passports); being able to use it to demonstrate age comes as a by-product of compliance with this. For age-related transactions the Government believes that a visual check of the card using the date of birth on the card is both sufficient and acceptable and is not aware of any widespread concerns around the use of documents like passports and driving licences (which show date of birth) as evidence of proof of age.

IPS has developed a large set of usage scenarios and technical models of usage which include how the card might be securely used online. These have been discussed at length with other departments and representatives from the private sector (especially banking) but IPS cannot dictate how these organisations will use the card.

7. We recommend that the Home Office issues a clear timetable for the publication of the technical specifications and defines procurement processes and stages. (Paragraph 46)

¹⁹ <http://www.opsi.gov.uk/ACTS/acts2006/60015--a.htm#12>

²⁰ Oral evidence, 3 May 2006, HC 900 v, Q489 (Fishenden)

When questioned on the timetable by the committee, Joan Ryan stressed the need for the timetable to remain flexible: “We have landmarks in this timetable to work with our partners to deliver on our building blocks. The committee is probably aware of things like biometric passports, UK biometric visas and biometric residence permits. Those kinds of developments and the feedback from them will help determine the timetable. The reason why the timetable is perhaps a bit looser than what might be called a very detailed timetable is because of that development and because we want to be very cautious on the basis of all the lessons we have learnt from good and bad projects.”²¹

Within this flexible timetable, the sequence of steps for each procurement will follow a standard sequence. The procurement process for the Scheme will be compliant with EU Procurement Regulations and will take full account of OGC best practice guidelines. The incremental approach means that there will be several separate procurements for different parts of the Scheme. Whilst the separate procurements may follow a different process according to their specific requirements they are likely to include a pre-OJEU strategy and scoping stage, a qualification stage, and then followed, depending on the procurement route, by an invitation to participate or negotiate stage, a call for final tenders and a contract closure and award stage.

A high-level set of requirements will be published in the OJEU notice. Those companies who express an interest in the procurement and qualify to participate in the subsequent procurement phases will be issued with a full set of output based requirements for the relevant procurement. The procurement process will allow sufficient time to discuss these requirements with those industry participants who are best placed to deliver the required outputs as selected through the pre-qualification process.

On the timing of procurement, the report suggests that procurement was due to start immediately after Royal Assent was granted²², which is not in fact the case and was rebutted in evidence given to the committee²³ – procurement was anticipated as commencing “a suitable time” after Royal Assent rather than immediately after. In any case, it would have been impossible to schedule procurement to start immediately after Royal Assent was granted as the timing of Royal Assent was not within the Government’s control, dependent as it was on reaching an acceptable compromise with opposition peers in the House of Lords.

The approach for procuring the required services to deliver the Scheme will be an incremental one. This will be achieved by a phased introduction of new capabilities, while building on and growing existing capacity to support current and future requirements. This approach was supported by industry and has been communicated through the recent market soundings.

It is our intention to release further information to the market on high-level requirements, timings and procurement stages as plans develop. Where appropriate we will also seek industry views on specific issues to ensure that we get these procurements right first time.

Specifications for individual procurements will be released to bidders once procurements formally launch. Individual procurements will provide more detailed information on timings and process as part of the initial procurement documentation to interested suppliers.

²¹ Oral evidence, 14 June 2006, HC 900 xi, Q1145

²² Paragraph 46 of the report says “Initially the procurement process was due to start as soon as Royal Assent had been granted”.

²³ By Katherine Courtney: “a suitable time after Royal Assent we will begin procurement ... it cannot begin until after we have had Royal Assent on the Bill and also passed gateway reviews and a number of internal health checks”, Oral evidence, 22 March 2006, HC 900 iii, Q326-Q327

Specifications will be, where possible, output based. This will give industry the greatest flexibility to propose the best technical solutions to meet the programme's needs. In the case of procurements that are run under the EU negotiated or competitive dialogue procedures, there will be significant opportunity for selected suppliers to help develop and refine more detailed requirements with officials prior to final tenders being submitted.

8. We are disappointed that two years after the Home Affairs Committee inquiry into identity cards the problems regarding clarity have not been resolved. We urge the Home Office to address these issues immediately. (Paragraph 47)

The Home Affairs Committee raised²⁴ concerns over what they saw as a lack of clarity in the scope and the aims of the (then) draft Identity Cards Bill. The Government responded by setting out the scope of the scheme in section 1 of the Act. These purposes were covered in the response to paragraph 4 of the report's conclusions.

They also commented on a lack of clarity in explanations of the way in which cards would be used and in the level of check which would be expected in carrying out transactions. This issue is dealt with in the response to paragraph 6 of the report's conclusions.

The Home Affairs Committee has published a report²⁵ giving details of the progress made against their recommendations²⁶.

Sources of scientific advice

Advisory committees

9. We welcome the establishment of the Biometrics Experts Group and the Biometrics Assurance Group, although we regret the time that the Home Office has taken to set them up. We support the involvement of Sir David King and believe that the Assurance Group has the potential to work well, particularly in providing consistent advice across Government. We seek confirmation from the Home Office that the Biometrics Assurance Group will be given the direction, tools and time to fulfil its tasks in practice and that the Group's recommendations will be taken into account. (Paragraph 53)

The Government thanks the committee for their recognition of the work of the Biometrics Experts Group and the Biometrics Assurance Group (BAG). The Government is fully committed to supporting the work of the BAG as it has done through its formative stage and will provide the resources necessary for the group's functioning and to take into account the group's recommendations.

Regarding the amount of time taken to establish the BAG, this took longer than was anticipated. There are two principal reasons for this. First, there were difficulties in the selection of candidates. Biometrics is a relatively small area and so there was a very small pool to select from and candidates had to have the right credentials and also not be compromised (e.g. by having close links to a potential supplier). Secondly it became clear that the group would function

²⁴ In House of Commons Home Affairs Committee: "Identity Cards" the Fourth Report of Session 2003-04, HC 130-I, <http://www.publications.parliament.uk/pa/cm200304/cmselect/cmhaff/130/130.pdf>

²⁵ First Special Report from the Home Affairs Committee: Memorandum from the Home Office: progress in implementing accepted Committee recommendations 2001-05, HC 1007, 2006, <http://www.publications.parliament.uk/pa/cm200506/cmselect/cmhaff/1007/1007.pdf>

²⁶ This report reproduces a memorandum from the Home Office listing actions taken by the Government in implementing accepted Home Affairs Committee recommendations since the start of the 2001 Parliament.

better with the right governance structure within the Home Office and so there was some delay while the Senior Biometrics Adviser at the Home Office Scientific Development Branch was appointed.

10. We recommend that the Identity and Passport Service establish an ICT Assurance Committee consisting of academics and industry experts and that this committee reviews the programme specifications relating to ICT. (Paragraph 55)

The Government agrees with the committee that some considerable benefits could flow to the programme from having more focused specialist ICT assurance and accepts the committee's recommendation to establish more formal arrangements to assure the programme's ICT requirements and design work. Officials have begun investigating the implementation of this recommendation.

The Independent Assurance Panel (IAP) has been able to advise us on some ICT issues particularly on issues of implementation and integration of new systems with revised business processes. However the Government acknowledges that some issues that could be covered by ICT assurance, such as analysis and recommendations on technical architecture, are outside the scope of the IAP. In accepting the committee's recommendation, IPS will consider how to best use the ICT expertise that currently exists within the IAP.

Engagement with industry needs to be done in such a way as to avoid compromising the procurement and for this reason the services of Intellect are used to mediate much of the discussion with industry. IPS has worked with Intellect to set up a number of seminars and 1-day conferences on specific issues relating to the identity cards scheme.

11. We welcome the work that has been undertaken over the last two years by the Government in developing the network of Chief Information Officers and more recently, Chief Technology Officers. We have not received any evidence demonstrating that these changes have impacted upon the identity cards programme. Given the central role played by ICT in the identity cards programme, we recommend that the involvement of ICT professionals within Government in the scheme be made clear and, if appropriate, that the Chief Information Officer chair the ICT Assurance Committee. (Paragraph 57)

The Government welcomes the committee's support of the Chief Information Officers and Chief Technology Officers and assures the committee that members of the programme participate in the CIO and CTO Councils. These are bodies set up to share and coordinate thinking on technology and ICT across government.

Shortly after IPS was formed from UKPS and the Identity Cards Programme, it appointed its own CIO, Annette Vernon, who until recently was responsible for Criminal Justice IT as CIO for the Department for Constitutional Affairs and has 20 years' experience in public sector IT based change. In her current role she has responsibility for:

- the programme of business change and procurement activity to deliver the systems, processes and capabilities required for biometric e-passports and identity cards
- the direction, integration, operation and delivery of IS/IT systems across the business
- delivery of the key components of the identity cards scheme and implementation of the changes to the existing passports business which support these and the systems required to support this delivery process

In addition, the Home Office has a CIO and a CTO who also participate in the CIO and CTO councils. The Home Office CIO's work feeds into that of the Identity Cards Programme by, for example, providing a strategic view of identity management systems across the Home Office Group.

Academia and learned societies

12. We believe that the Home Office is not taking full advantage of the impartial advice that could be offered by the academic computer science and information systems community. We recommend that the Home Office uses the ICT Assurance Committee in order to fully engage the academic ICT community. (Paragraph 61)

Paragraph 59 of the report states "I do not think there has really been any consultation with the academic community"²⁷. However, the Identity Cards Programme has used advice from academia – for example through its long association with technical experts from NPL, its involvement with the Home Office Science & Technology Reference Group and its individual discussions with the academics that make up that group. Members of the programme have spoken at Royal Holloway College on a number of occasions and also addressed a seminar of their Authentication and Identity Management Group.

As already stated the Government accepts the committee's recommendation to form a body to provide coherent advice on ICT and will consider how this body can engage the academic community.

13. The LSE reports served a useful purpose in opening up debate on the scheme but the resulting emphasis upon the cost of the scheme and the errors in the initial interim report inhibited the development of the necessary wide-ranging debate. (Paragraph 65)

14. We are disappointed by the nature of the Government's reaction to the criticisms outlined in the LSE reports. We believe that the way in which the LSE reports have polarised the debate regarding identity cards, whether intentionally or not, has been detrimental. The Home Office would have been better advised to put together a dispassionate critique of the LSE Identity Project Report rather than seek to undermine its credibility and motivation. (Paragraph 67)

The Government agrees with the Committee that the debate surrounding the LSE Identity Project Report has not assisted the development of a reasoned understanding of the issues surrounding the introduction of identity cards. Documents issued by the Home Office in response to that report were intended as a dispassionate critique but the Government acknowledges that this became overshadowed by a wider media debate. This reporting of the Government's position and the issues raised by the LSE was not within the Government's control.

Nevertheless, shortly after the publication of the LSE Identity Project's main report, officials from the Home Office Identity Cards Programme did make attempts to launch a more positive engagement with the LSE Identity Project Team. However, at an initial meeting, they were unable to provide a representative with sufficient technical expertise to discuss their report in adequate detail. Meeting formats later suggested to the Home Office by the LSE Identity Project Team risked breaching procurement rules for engagement with suppliers. Subsequently, no further concrete offers to engage in a more suitable environment were received.

²⁷ Quote from Professor Martyn Thomas, of the UK Computing Research Committee (UKCRC)

Meanwhile, Home Office Ministers and officials have replied to letters from and attended debates with project team members. In particular, in an effort to launch a more considered debate, a letter²⁸ was sent on the 19th of December 2005 from Baroness Scotland to Professor Ian Angell of the Identity Project Team detailing specific concerns on the report's analysis of biometric technology. No reply was received. However, IPS has engaged individual contributors or those individuals whose work was cited where their skills and background are relevant to the delivery of the Scheme. For example, one contributor is currently a member of the scheme's Biometric Assurance Group.

While recognising the overall media debate has not been helpful, the Government does not believe that it has been wrong to examine the assumptions behind the report itself. As the committee has noted elsewhere, it is important to assess the quality and objectivity of scientific or technological advice which relates to Government policy. In the case of the Identity Project Report, the Government is not alone in recognising a number of factors that cast doubt on the credibility of parts of the report as well as the impartiality of the report's core team. Senior team members behind the Identity Project have maintained prominent positions in organisations that oppose ID cards in principle both before and during the development and publication of the Identity Project Report, yet this was not disclosed in the team's publications or in mainstream media activity by the authors. Instead, such publications were presented as being objective and independent research.

The Government supports the right of such individuals or groups to express their views in open debate. However, such views do not necessarily constitute objective, rigorous academic research. Therefore the Government maintains it was entitled to defend its proposals and to assert that the report was not as independent or accurate as was claimed by its authors. The Government certainly does not expect academics to agree with its proposals as a precondition for developing a good working relationship with them. However a productive relationship with academia must be based on a balance of trust and candour if that co-operation is to bear fruit. In this instance, the context of the Identity Project Report's genesis, development and publication did not allow such a relationship to develop.

Industry

15. We recommend that, particularly as it enters the procurement phase, the Home Office works to develop further its relationships with industry. Industry is a significant source of scientific and risk reduction advice as well as being a pool of potential suppliers. We reiterate that the Home Office needs to engage in wideranging debate with industrial experts regarding scientific and technical aspects of the scheme. (Paragraph 70)

The Home Office will continue to build relationships within the industry and utilise them as a valuable source of scientific advice. IPS will be engaging with independent experts and consulting across government during the procurement process to assist suppliers in developing the optimal solution to meet its requirements. In addition the relevant procurement process will be structured to allow a full dialogue with bidders to clarify the requirements (both in terms of the required outputs and any underlying technical constraints) and to understand how bidders are best able to meet these requirements.

In addition the Identity Cards Programme undertook an extensive market-sounding process, meeting with relevant suppliers of systems and technology on an individual basis in 2004 and again in 2005, seeking their input and advice.

²⁸ Officials from IPS submitted this letter to the committee; however it is not in the published evidence.

Co-ordination within Government

16. We recommend that the Home Office undertakes a cross-Government consultation regarding its plans for technology to support the identity card scheme before the specifications of the scheme are finalised and that it makes the findings of this consultation public. (Paragraph 76)

IPS consults widely across government and this consultation has been going on since the beginning of the Identity Cards Programme and will continue, the results being incorporated into the scheme requirements. The Government acknowledges what the Committee has said about the need to be more public with its plans for identity cards: A review of the plans for the delivery of identity cards was commissioned by the Home Secretary over the summer and a strategic action plan, including plans for partnerships with other government departments, will be published in due course.

Officials within the programme actively participate in cross-government groups on technology such as the Biometrics Working Group²⁹ and the CIO and CTO Councils³⁰. There are also representatives from other departments on the boards which govern the programme.

There is extensive engagement at the project level between the Identity Cards Programme and its delivery partners (those organisations which will deliver components of the identity cards scheme or related projects – principally the Home Office Immigration and Nationality Directorate, UKvisas, and the Foreign and Commonwealth Office’s Consular Services). In many cases, and especially in the area of biometrics, these projects share the same expert advisors. There is also participation in Home Office groups such as HOSIS (Home Office Strategic Identification Systems) and HOIME (Home Office Identity Management Experts). The Office of Government Commerce has praised the integration at senior level between the Identity Cards Programme and its delivery partners.

International models

17. We recommend that the Home Office continues to develop international links during the programme but stress that the limitations of advice and evidence from other schemes must be recognised by Ministers in the light of the unprecedented scale, the use of multiple biometrics and the complex IT requirements of the UK scheme. (Paragraph 80)

18. In order to build public confidence in the technologies involved, we recommend that the Home Office publishes an overview of the scientific advice and evidence that it receives as a result of international co-operation. (Paragraph 81)

IPS maintains strong international links with biometric standards setting organisations such as the International Civil Aviation Organisation (ICAO) and the International Standards Organisation (ISO) and with EU and non-EU states. IPS has been prominent in the development of new international standards for travel documents containing biometric features.

IPS will continue to engage with the international community, monitoring developments in identity document technology and usage to ensure that benefits for the identity card scheme are identified and consideration given to their application within the scope and environment of a UK scheme.

²⁹ <http://www.cesg.gov.uk/site/ast/index.cfm?menuSelected=4&displayPage=4>

³⁰ <http://www.cio.gov.uk/>

The Government welcomes the committee's recognition of its efforts thus far in engaging with standards organisations and schemes in other countries from which lessons can be learnt and assures the committee that it will continue to develop these international links. The Government agrees with the committee that there are limitations on what can be learnt from other schemes, arising from the differences in social conditions, technology, scale, etc. between the proposed identity cards scheme and other schemes and that these limitations must be taken into account when analysing or drawing conclusions from other schemes.

Publishing detailed information from international schemes would undermine the Government's ability to engage with these schemes. IPS already publishes some details about passports and identity cards issued by other countries³¹, but could make it easier for the public to access through its website the publicly available data it is using from international bodies (ICAO, NIST³², etc.) and other identity card schemes. Such a move would demonstrate the broad nature of the programme's consultation and investigations and inform debate, and IPS will endeavour to implement this as part of its communications strategy.

The evidence base

Trials

19. We welcome the Home Office's commitment to publicising fully its plans for trialling once the procurement process has begun. In order to continue this move towards transparency and to build public confidence in the scheme, we recommend that the Home Office also makes public the results of these trials. (Paragraph 83)

The Government thanks the committee for their recognition of its commitment to openness in its plans for trialling. As was done for the UKPS trial, IPS will publish reports based on the results of future trials.

20. We welcome the Home Office's cautious incremental approach and we encourage the Home Office, if necessary, to extend the procurement phase to ensure that enough time is taken to gather the necessary scientific evidence and to undertake all the appropriate trials. In view of the potential adverse impact on large numbers of people, it is better that the scheme is late and workable than on time but flawed. (Paragraph 84)

The Government thanks the committee for their recognition of the caution with which it is proceeding and assures the committee that it will continue with this policy. The committee's recommendation suggests that the procurement phase should be extended to include all appropriate trials. The Government believes that better, more reliable results and better value for money can be achieved by rolling out the scheme incrementally and collecting data from these early stages with a view to using it to modify the scheme's design as it grows.

21. We recommend that the Home Office publicly outlines the ways in which the results of the trials have influenced and changed the programme. (Paragraph 85)

It is not straightforward to make a link between a specific trial result and a specific requirement or set of requirements. To do so, and to publish relationships between trial results and our requirements would misrepresent the way in which requirements are iteratively formed from business needs, trial evidence, data from consultations and published works, and advice from industry experts. Such an approach would also fail to recognise the role trials play in the

³¹ For example, <http://www.identitycards.gov.uk/downloads/06-02-09-ID-Cards-in-other-countries1.pdf> and <http://www.identitycards.gov.uk/downloads/2005-08-10-ID-Cards-in-other-EU-countries2.pdf>

³² The US National Institute of Standards and Technology, <http://www.nist.gov/>

treatment of risk and specifically in supplying data to inform our confidence on the likelihood of risks occurring or not occurring. In these cases the impact on the programme would be, as a risk becomes more or less likely, the scale and associated costs of the mitigation plan for that risk. Trials also inform IPS's cost modelling – an example of this is the enrolment timing data from the UKPS Biometric Enrolment Trial which informed the assumptions of the cost of enrolment.

The trials that IPS expects to undertake are intended to test suppliers' abilities to meet Home Office requirements. As these will be a factor taken into account during the overall evaluation of performance, these trials will directly affect the programme. The design of these trials takes account of the results of the UKPS biometric enrolment trial. For example, these trials may look at the performance of biometric systems when enrolling people who have biometrics which are challenging to record and will complement the UKPS trial (which tested process design and customer perception issues) with a test of the technology. The Government will follow a similar approach to the publication of these trial results as was used for the publication of the UKPS biometric enrolment trial results.

22. We seek assurance that the Home Office will not limit the number, scope or quality of technology trials in order to stay within the allocated budget. We recommend that the Home Office ensures that sufficient funding is available to undertake the necessary technology trials for this scheme and that it retains flexibility regarding the trials that may be required. (Paragraph 86)

Flexibility regarding the scope of the trials within certain constraints is good practice and the Government accepts this recommendation and assures the committee that the trialling strategy will be able to adapt to changing circumstances and the results of trials. However, as with all Government activities, trialling has to be managed within the usual budgetary disciplines and so while the Government can assure the committee that trials will be well-funded it will also fulfil its obligation to achieve value for money.

23. There is evidence that whilst trial plans were set out clearly the processes with which they were enacted lacked rigor. As a result, the Home Office has selectively used evidence from the biometrics enrolment trial to support its assertions. We believe that the Home Office has been inconsistent regarding the status of this trial and this has caused confusion in relation to the significance of the evidence gathered about biometric technologies. We recommend that the Home Office clarifies whether or not it accepts the validity of the results gained during the trial regarding the performance of biometric technologies. (Paragraph 88)

The Government does not accept the validity of the results relating to the performance of the biometric technology because the technology was not optimised or set up for the requirements of a national identity card system. The report of the UKPS Biometric enrolment trial clearly stated³³ that the aim was to test the processes and record the customer experience and was not a technology trial. This was underlined by Dr Mansfield of NPL in the committee's inquiry: "The trial was not devised as a performance trial but it illustrated that if you just buy off-the-shelf systems and deploy them with no adaptation to the ID cards programme the performance would not be terribly good"³⁴. The results showed that the technology as implemented in the trial fulfilled the needs of the trial but was not appropriate for enrolment of biometrics of a level of quality

³³ Section 1.1.2 of the report. The management summary of the report which includes this section is available at http://www.passport.gov.uk/downloads/UKPSBiometrics_Enrolment_Trial_Report-Management_Summary.pdf

³⁴ Oral evidence, 3 May 2006, HC 900 v, Q573

needed for large-scale deployment. However the results can be used, and have been used, to show the base level of the performance of the technology – i.e. the level of performance which can be achieved with off-the-shelf equipment without any specific evaluation or configuration. This use of the results may have contributed to a misunderstanding in some quarters of the purpose of the trial.

24. Given the findings of the biometrics enrolment report regarding the performance of current biometric systems, we seek reassurance from the Home Office that systems will be adapted as necessary to improve performance levels and that final performance levels will be verified by independent testing. (Paragraph 89)

Given that it was not set up to achieve optimum technical performance, the Government expects the technical performance of the biometric solution proposed by suppliers to be better than that used in the UKPS Biometric Enrolment Trial.

Also, as was stressed in oral evidence given to the committee³⁵, the Government will learn from the experience and continuous improvements in performance of other successful large-scale biometric systems such as IDENT1 (the successor to the Police's automated fingerprint system), and smaller-scale systems such as IRIS³⁶ and IAFS³⁷.

IPS will test its contractors' technology to ensure that it meets its requirements. Should the tests indicate that any system falls short IPS will require its contractor to adapt its technology as necessary. Testing will be independently assured whenever this is appropriate, for example at completion of significant system components.

25. We note the lack of independent evidence relating to the performance of iris scanning and welcome the Home Office's commitment to undertake a large-scale matching test using pre-recorded biometrics. Given the relative lack of information available publicly regarding the performance of biometrics in a national scheme, we recommend that once the scheme is established the Home Office publishes details of the performance levels of the technology. (Paragraph 91)

The Government thanks the committee for their recognition of its commitment to large-scale testing. As stated in the response to paragraph 19 of the report's conclusion, IPS policy is to publish reports based on the results of future testing and trialling work. IPS will publish details of the testing of the scheme in operation, but cannot commit to publishing all details of the performance of the biometrics, especially where these might compromise the integrity of the scheme – e.g. if the results indicate how to subvert the security of the scheme.

The Government has carefully considered the comments made by the committee on the collection of data (paragraph 91 of the report "...the Home Office's unscientific approach"). We consider however that a thorough review of existing test data³⁸ in order to inform our requirements and plans for further testing is entirely appropriate and a good example of the application of scientific method.

26. We are surprised and concerned that the Home Office has already chosen the biometrics that it intends to use before finishing the process of gathering evidence. Given that the Identity Cards Act does not specify the biometrics to be used, we encourage the Home Office to be flexible about biometrics and to act on evidence rather than preference. We seek assurance

³⁵ Oral evidence, 14 June 2006, HC 900 xi, Q1167

³⁶ Iris Recognition Immigration System, <http://www.iris.gov.uk/>

³⁷ Immigration and Asylum Fingerprint System

³⁸ This data was supplied to the Committee in response to a request

that if there is no evidence that any particular biometric technology will enhance the overall performance of the system it will not be used. (Paragraph 93)

The Government can give the committee this assurance and notes that “overall performance” includes accessibility, usability and reducing failures to enrol³⁹.

Much of our choice of biometrics is driven by international obligations (principally ICAO 9303) to use fingerprints and face. We have some flexibility in how many fingerprints to use and whether to use iris. However, some firm decisions have been made – for example, the Act is clear on the point that there is no power to require a person to provide DNA.

Decisions we make on this will be influenced by how well our trial results match previous data and also how consistent the performance of the biometrics during roll-out is with the trial data.

27. We note the lack of explicit commitment from the Home Office to trialling the ICT solution and strongly recommend that it take advice from the ICT Assurance Committee on trialling. We seek an assurance that time pressure and political demands will not make the Home Office forgo a trial period or change the purpose of the scheme. (Paragraph 95)

As noted earlier, the Government accepts the committee’s recommendation that it establish a body to provide ICT assurance. The precise nature of this is yet to be decided but advice on and review of the policy and practice of ICT testing is likely to be within its remit.

It is not possible at the moment to give a firm commitment as to the nature or timing of the trialling which may be undertaken. However, the Government can assure the Committee that, as we have said before, the statutory purposes of the scheme can only be amended with the consent of Parliament.

The purpose of the scheme remains as outlined in the Act. A major plank in approaching risk within the programme, and indeed within all operational areas of IPS with regard to change, has been to mitigate risks by adopting an incremental approach to implementation. IPS has always maintained that it is planning to deliver the scheme incrementally by rolling capability out in discrete packages over time. IPS is fully committed to this incremental approach particularly where it contributes to the mitigation of risk and the delivery of early benefits.

Testing has always been, and will continue to be, a key part of the development of any technical solution. Testing will be undertaken through the life of the scheme. During the life of the scheme IPS will trial the technical solution at key points in its development, and will be looking for assurance that the technical solution is fit for purpose before it is deployed in the live environment (and before relevant payments are made to the suppliers). The specific details of the testing approach will be notified to the bidders who qualify for the procurement at the appropriate point in the procurement process.

The Government has always accepted the need to trial components of the scheme, and has allowed provision in the legislation but as to the nature and extent of trialling, decisions on this will be based on indications from IPS’s risk management strategy as to what trialling is necessary and on feedback from suppliers.

³⁹ E.g. Use of multiple biometrics can reduce the overall failure to enrol: Oral evidence, 22 March 2006, HC 900 iii, Q295

The committee's chairman attended a confidential briefing on the Identity Cards Programme risk register and the committee's report expressed that they felt reassured by the programme's approach to risk management. IPS will continue with this approach to risk management to identify those parts of the technology where trialling of the suppliers' intended solutions would have the greatest positive impact on the programme's overall level of risk. Trialling of the end-to-end solution before going live would imply the trialling of a large number of low-risk technologies (e.g. email) and would not be cost-effective and may needlessly delay launch. The performance of the end-to-end solution will be tested during the rollout, the risk of this strategy being controlled, if necessary, through varying the rate of the rollout.

Likewise, as the design of the technical solution adopted for Identity Cards is worked out between IPS and the chosen suppliers, only then will the Government be able to be absolutely sure of the different levels of testing different parts of the scheme require. It is worth noting that in cases where IPS has introduced new technology in the past acceptance testing and other testing has been undertaken, and there has been a gradual roll-out. For example the new e-passport, which contains a contactless chip, underwent extensive durability and other testing and was trialled through cooperative arrangements with other countries. It was issued initially to a small group of diplomatic passport holders and then over a six month period we progressively increased the proportion of passport applicants who received an e-passport rather than the earlier version until all passports issued were of the new format. Approximately two million of these have now been issued without significant problems, underlining the effectiveness of this trialling strategy.

Research and development

28. We recommend that the Home Office identifies the gaps in the evidence base underpinning the identity cards programme, that it commissions research to fill these gaps and that it feeds any new developments into the scheme where appropriate. This process should be overseen by the departmental Chief Scientific Adviser. (Paragraph 96)

IPS is continuously analysing the evidence base for identity cards and assessing where more work is needed as part of the risk management process. Where a risk indicates there is insufficient evidence then additional work is commissioned – for example IPS is commissioning work on data modelling and managing large volumes of data.

All science in the Home Office is overseen by its Chief Scientific Adviser including that underpinning the identity card programme. The overview of social science is maintained through all projects passing through the Project Quality Approval Board prior to starting. This ensures that all projects are both policy-focused and of appropriate scientific quality. Physical science research in biometrics is overseen by two groups, the Home Office Strategic Information Systems Technical Operations group (HOSISTO) and the Biometrics Assurance Group. The head of the Home Office Biometrics Centre of Expertise, who reports to the Chief Scientific Adviser, chairs the HOSISTO group and sits on the BAG (Biometrics Assurance Group). The BAG has as part of its remit the identification of gaps in research and brings to its overview of the programme a wide spectrum of expertise, including experts from industry and academia. The BAG is chaired by the Government Chief Scientific Adviser, Sir David King.

29. The Home Office cannot afford to delegate responsibility for horizon scanning to others. We recommend that the Home Office actively undertakes horizon scanning activities relevant to the technologies involved in the identity cards programme and that it develops mechanisms to feed this information back into the scheme. (Paragraph 97)

Central to risk management is the analysis and discovery of areas of technology, policy, etc. in which the future is uncertain. Many of the risks in the Identity Cards Programme's risk register have been uncovered by the sort of horizon scanning referred to by the Committee. Whilst government will expect the consortium that wins the project to maintain a horizon scanning function to ensure that advantage is taken of any emerging knowledge and technologies, the Home Office will continue its horizon scanning to ensure that when new opportunities arise they are used to best address the challenges it faces. The Home Office horizon scanning work comprises of two major strands, the scan of emerging technologies and the social horizon scan – both these elements maintain strong links with the Office of Science and Innovation Horizon Scanning Centre. The scanning of emerging technologies is undertaken by the Home Office Scientific Development Branch – a team of scientists and engineers that apply technology to fight against crime that includes the Biometric Centre of Expertise. This liaises with industry and academia to take advantage of the most up to date, robust and secure solutions in the biometrics field. The Home Office also has a dedicated team that undertakes social horizon scanning that includes analysis of future changes and challenges in society, which also reports to the Chief Scientific Adviser. Further, the development of the Identity Card scheme itself shows that the Government is looking at longer term strategic solutions, to ensure that increased global mobility does not put at risk our security and prosperity.

30. We urge the Home Office to commission, and where appropriate fund, research focused on the specific requirements of the information technology systems in the identity cards scheme rather than relying on general existing study results. (Paragraph 98)

A framework contract has been put in place with QinetiQ to allow the programme to call on their technical expertise and research capacity in support of the Identity Cards Programme. At present they are engaged in a data modelling exercise to identify the anticipated volume of data and its routing based on a model solution. The aim of this is to identify problems associated with high data volumes and to suggest where 'choke' points might be. This analysis will be used to inform the business practices used to reduce the volume of data being moved around the system and to evaluate suppliers' proposals.

Technology and operating costs

31. We recommend that the identity cards programme team returns to the KPMG audit report and implements its recommendations. Furthermore, we re-emphasise that the Home Office needs to work out how costs will impact on performance and we seek reassurance from Government that cost limitations will not compromise the level of performance that is accepted. (Paragraph 102)

With regard to the point on cost limitations compromising the level of performance that is accepted, IPS is committed to managing procurement and development to enable it to achieve the required performance standards while maintaining value for money.

KPMG produced an audit report of the cost methodology and cost assumptions used for the identity cards Outline Business Case (OBC) in November 2005⁴⁰. The report made twelve specific recommendations and also commented on both the high quality of the OBC and the highly skilled team responsible for its production.

⁴⁰ "Cost Methodology and Cost Review, Outline Business Case Review", 7 November 2005, http://www.identitycards.gov.uk/downloads/2005-11-7_KPMG_Review_of_ID_Cards_Methodology.pdf

IPS has carefully considered all of the recommendations of the KPMG report and directly implemented eight of them. The actions taken in relation to the remaining four recommendations are summarised below:

Recommendations 3 & 4 – Consider the use of a more detailed risk-based approach, such as Quantitative Risk Analysis (QRA), for Scheme total cost estimation and a formal process to link the programme risk register and risk assessments to the estimation of optimism bias and contingency.

A specific role has been created for a risk analyst to co-ordinate the collection and assessment of risk information from the managers responsible for maintaining risk registers and undertaking qualitative risk assessments for projects (including procurements) within the programme. The role includes working with the programme's financial analysis and modelling team to carry out quantitative risk analysis, where feasible, using this information. The analysis will be used to prepare, and periodically update, estimates of the overall financial and economic risk associated with the Identity Cards Programme. The programme's full business case, when developed, will present these estimates.

Quantitative risk analysis will also be carried out within the procurement projects being undertaken by IPS in order to estimate the amounts of risk transferred to suppliers during contract negotiations.

Recommendation 8 – Consider increasing the five-year depreciation assumption for mobile enrolment centres to eight years.

Following a review of this proposal it was considered prudent to continue with a five year depreciation period for these assets. The cost impact of this assumption remains marginal.

Recommendation 11 – Review the staffing levels for the internal ICT help desk and data centre operations of the National Identity Register (NIR)

This recommendation remains under review as the requirements for the NIR are still being developed.

32. We are sceptical about the validity of costs produced at this early stage. We acknowledge that the release of firm overall costing has been driven by political imperatives but the Home Office could have credibly given a broad range instead of precise figures. We note the danger that a desire to keep below a costs ceiling might drive the choice of technology. We seek assurances that the costings are flexible. We strongly recommend that, once the procurement process has taken place, the Home Office publishes a breakdown of technology costs, including set-up costs, running costs and predicted savings as a result of the scheme in the Home Office and elsewhere. (Paragraph 105)

The cost estimates published are based on a reference design and as such are improved and revised as our understanding of the underlying cost assumptions improves. These will continue to be refined through discussion with the market and comparisons with appropriate benchmark projects throughout the procurement and, therefore, remain flexible. IPS is committed to securing a value-for-money solution and this will be an important factor in the choice of technology.

With regard to the committee's recommendation to publish a breakdown of technology costs after the procurement has taken place, the Act requires the Home Secretary to publish a report that sets out the expenditure on the scheme every six months from the date the Act was passed⁴¹. Whilst we are keen to

⁴¹ The first such report was published on 9th October and is available at <http://www.identitycards.gov.uk/downloads/costreport37.pdf>

remain open and transparent on the level of detail provided to the public in the cost estimates for the programme, we must also protect the commercially sensitive information of our suppliers. The price that they are charging for the technology services will be commercially sensitive. IPS will publish whatever information it can but will need to ensure that it does not compromise the competitive position of any of its suppliers in doing so.

IPS is also open with regard to its corporate and operational costs and as an executive agency has an obligation to publish annual accounts⁴².

33. We recommend that the Home Office prioritise funding as necessary to ensure that required social science research is undertaken and if necessary commissioned. In particular, we emphasise the need to undertake work to understand the attitudes of prime users towards the current proposals. (Paragraph 109)

IPS, as part of the Home Office, sets aside funds in annual budgets to facilitate the running of social science research projects. Since the merger of UKPS and the Identity Cards Programme in April 2006, these have fallen into two categories: Social science research to support the ongoing issue of passports; and social science research to support new product and service design (such as the biometric passport) and development focused on the identity cards scheme. IPS has a full programme plan to meet these objectives including social science research to understand the attitudes of prime users (business and citizen customers) towards the current proposals.

The Government notes the comment in paragraph 106 of the report: “In oral evidence to us, Professor Angela Sasse said that she thought that the Home Office became aware of the societal impact of the scheme during the Home Affairs Select Committee investigation in 2004”. This is not the case; in fact the Home Office was aware of the societal impact of the scheme from its inception in the autumn of 2003 and commissioned research as part of the Home Office Crime Survey for fieldwork in early 2004. Face-to-face ‘in home’ interviews among a representative sample of the public in England and Wales were held on 4-8 February 2004 and 31 March-4 April 2004, well before the publication of the Home Affairs Select Committee findings. The Identity Cards Programme also commissioned (and published) research on the public’s views during the first consultation exercise during 2002-03⁴³.

In reference to Professor Anderson’s statement in paragraph 108: “The challenges of implementing the various biometric technologies have been the focus of concern, and it appears that less attention has been given to the challenges of how to design and implement the system in ways that are usable, useful and appropriate”: IPS has consulted with a number of potential private and public sector business customers of the identity cards scheme and proposes to carry out further research and consultation within the current programme. Potential public and private sector users of the scheme’s views are being carefully considered in the design of identity service delivery. IPS has also consulted with several disability and special interest organisations to gather information for the usability and accessibility requirements of the scheme and specifically recruited disabled groups (as well as a representative sample of the UK population) in the UKPS Biometric Enrolment Trial.

34. We recommend that the Home Office establishes a clear process by which advice from external social science experts regarding future research and the social science aspects of the programme can feed into the scheme.

⁴² For example, the 2005-06 annual report and accounts are available on the agency’s website: http://www.passport.gov.uk/downloads/HC1544_UKPS.pdf

⁴³ Various publications on this consultation exercise: <http://www.identitycards.gov.uk/news-publications-legislative.asp>

Once research has been undertaken, we urge the Home Office to develop the expertise that will allow it to follow up the results. (Paragraph 111)

A clear process by which advice from external social science experts can be fed into the scheme is already in place. As was stated in response to written questions⁴⁴, advice is received from Home Office Research Development and Statistics (RDS), Central Office of Information (COI), plus external research bodies commissioned to conduct research such as Taylor Nelson Sofres and Cragg Ross Dawson. These organisations themselves provide a wealth of social science knowledge and practical experience in conducting social science research to the programme. Where the programme has considered more technological elements of the programme external academic opinion has been sought, for example, through the Foresight Cyber Trust and Crime Prevention Project and the Science and Technology Reference Group, both of which have external academic membership.

When necessary, specific pieces of work are commissioned following the usual competitive tender process and the results form part of the evidence needed for informed decision-making. For example, in 2005 as part of the move to require first-time passport applicants to apply 'in person', UKPS commissioned work on the travel time to passport offices which would be required of various population groups living in various areas of the country for different numbers and configurations of passport offices. This was done alongside consultation with local agencies and authorities representing remote areas of the UK, and the results and recommendations were then considered by the project board in the context of other project requirements and a decision on the number and distribution of offices was taken.

IPS Marketing and Communications department has personnel highly experienced in analysing the results of customer opinion based social science research. Following analysis, all results are used to inform appropriate parts of the programme and, where appropriate, processes and approaches are refined.

The treatment of risk

Treatment of risk

35. The Home Office has provided us with details of the risk management strategy within the identity cards programme. However we are disappointed that the Chairman was not allowed to view the risk register in confidence. In the light of the evidence provided to us, we are somewhat reassured by the Home Office's risk management strategy. Any delay to the procurement process will postpone the treatment of various risks. We seek assurance that the timing of the procurement process will be considered in relation to risk management. (Paragraph 116)

The Government thanks the Committee for their endorsement of IPS's risk management strategy. On the point about allowing the committee access to the risk register, this is an internal document which is confidential in nature. Furthermore, the majority of the risks in the register relate to business change, finance and commercial issues rather than the technical risks the Committee were interested in, and as such fall outside the scope of the Committee's inquiry.

The procurement programme for identity cards will involve a number of a procurements running to different timetables. In setting the timing of these procurements, IPS will take into account a range of factors, one of which will be the degree of risk associated with any particular timing decision. In addition,

⁴⁴ Reproduced in paragraph 17, appendix 15 of the report, <http://www.publications.parliament.uk/pa/cm200506/cmselect/cmsctech/1032/1032we17.htm>

IPS will also consider other factors such as the benefit that will be delivered, the alignment with other procurements and the need to meet particular legislative requirements and international obligations. Each of the relevant factors will be considered and will inform the decision as to the best time to run the procurement process.

The Government can assure the committee that risk management will be central to the procurement process itself. IPS will regularly review the risk register as a whole, the cost impact of the risks associated with individual contracts, its exposure to existing risks, and the balance between risks which IPS ‘owns’ and those it transfers to suppliers. External review of risks will be provided by the programme’s Independent Assurance Panel.

The Government can also assure the committee that the procurement will include assessment of the potential cost impact of our own risks on the whole life cost of the contract. This assessment will be wider than IPS and extend to potential impacts on costs incurred by the bidders.

Finally, the Government wishes to make clear that the statements in paragraph 113 of the report that “the programme still contains considerable risk at this stage of procurement” (Qinetiq) do not contradict the statements that “risk is being appropriately considered” (NPL) and “within the ID area [risk analysis] seems to have been successful” (British Computer Society). Risk can be properly analysed and managed, and an informed decision can be taken to proceed into the procurement stage of a project with outstanding risks, provided there are proper treatment plans in place appropriate to each risk.

36. We recommend that the Home Office make details of its risk model public and that it takes steps to ensure that advice regarding risk management can feed into that model. (Paragraph 117)

The model for risk management has been developed in line with guidance from the Home Office PPMSU (Programme and Project Management Support Unit) and is an adaptation of the OGC’s approach⁴⁵ reflecting the level of maturity of risk management within the Programme. For example, where the OGC requires consideration of a proximity date when considering risk, the programme has extended this to include consideration of the dates for both when the impact will be felt and the trigger (e.g. the date or event that will trigger those impacts). Similar refinements are made as part of the risk management team’s programme of continuous improvement.

37. We recommend that an overall indication of the outcomes of the OGC Gateway Reviews, but no specifics, be made public in order to increase confidence in the scheme. (Paragraph 119)

IPS follows the OGC guidelines with regard to Gateway review reports. The OGC report is produced for the project SRO and is not made public. To make any part of it public would set a precedent and undermine the usefulness of the OGC Gateway report as a candid and unbiased report to the SRO.

This policy is currently being tested with the Information Tribunal following a request under the Freedom of Information Act for one of the Identity Cards Programme OGC Gateway reports. This request was originally refused by OGC but, following an appeal, the Information Commissioner ruled that the report should be disclosed. At the time of writing OGC is appealing against this decision.

⁴⁵ As outlined in the “Management of Risk: Guidance for Practitioners”, http://www.ogc.gov.uk/guidance_management_of_risk.asp

38. It is important that the impact of a politically-imposed deadline will not override the impact of scientific advice or evidence on the readiness of the scheme and we seek reassurance from the Government on this point. (Paragraph 120)

During the development of the Identity Cards Programme there is no evidence that Government has thus far imposed politically-motivated deadlines, and no timetable is dictated by the legislation. There is however robust evidence of its willingness to ensure that all the necessary building blocks – in terms of evidence and assurance – are in place before procurement starts. IPS has run two rounds of consultation, trials and studies through NPL, market-sounding activities and consulted widely in the biometrics community to ensure it is getting the best advice and assurance through the Biometrics Experts Group and the Biometrics Assurance Group.

There are some deadlines which have to be taken into account but the risk associated with these can be mitigated by our control over the incremental nature of any rollout. As the Committee will be aware, some deadlines relating to the introduction of biometric technology are set by the European Union. For example there will be a deadline for the introduction of biometrics into the Residence Permit to be issued to nationals of non-EU countries.

The timescales for deployment of the scheme must be considered in a context wider than the Government's domestic agenda. It should be noted that we are closely involved with all those biometric initiatives which impact the Identity Cards scheme and our progress in these is aligned with that of other European countries. These include those already operational such as the fingerprinting and sharing of data on asylum seekers across Europe, but also compliance with regulations on the Biometric Residence Permit, and keeping in step with our EU partners on the introduction of fingerprint biometrics into the passport.

39. We emphasise the importance of the development of an holistic approach to risk management in order to ensure that focus on biometrics as an emerging technology does not detract attention from other aspects of the scheme. (Paragraph 122)

As indicated elsewhere, the Programme's risk register includes risks from a range of categories (drawn from the Treasury Orange Book). In order to ensure consideration of as wide a spread as possible, these categories are used to provide a gap analysis which will enable the programme to develop a robust plan for managing these risks.

Our efforts on risks and research have been greater in the field of biometrics than in some other areas because this area of technology is less mature than others. For the same reason we have been more prescriptive about the biometric solution than the ICT solution where the maturity and uniformity of the market makes it better able to respond to an output-based set of requirements.

ICT system

40. Industry is hoping that the commencement of procurement and the release of specifications will clarify the Home Office's position. Once the specifications have been released, we urge the Home Office to take steps to ensure that the specifications, requirements and risks have been clearly understood by all involved. (Paragraph 126)

The requirements are being written in an output-based format and have been audited by appropriate senior officials within IPS to ensure that the language is clear and unambiguous. These requirements will undergo further scrutiny before final release. Potential contractors will have the opportunity to ask clarification

questions which will be answered to all parties provided they are not proprietary in nature. It is also intended to engage face to face with the competitors under the supervision of commercial officers to explain any areas that are still not clear.

41. The Home Office is reliant on external expertise in the area of ICT and is unable to act as an intelligent customer of scientific advice. We recommend that the Home Office uses a senior and experienced systems architect to advise on the specifications and to provide support during the procurement process. (Paragraph 129)

IPS is not wholly reliant on external scientific advice having access to established professional technical groups in the Home Office in the areas of Biometrics (e.g. the Biometrics Experts Group) and ICT. This is complemented by specialist advice from bodies such as QinetiQ (see the response to paragraph 30 of the report's conclusions) and the National Physical Laboratory (NPL). Also the BAG, chaired by the Government Chief Scientific Advisor Sir David King, has been working with the programme for some time.

We are focused on ensuring that the right level of ICT advice is present within the programme to provide assurance on the requirements for the procurement process. A Chief Technical Architect will be responsible for maintaining and ensuring the compliance with the scheme architecture.

42. We recommend that the Home Office give the security properties of the solution a very high priority, not only from the point of view of being trustworthy but also to ensure that the security features do not adversely impact upon the operation of the scheme. Furthermore, we suggest that if possible, the solution should be based on security architectures, technology and processes that are already in use. (Paragraph 135)

The Government is very conscious of how important it is to ensure that the National Identity Scheme is secure and accepted a specific amendment to the legislation when it was going through Parliament which emphasises this requirement⁴⁶.

To that end, we have sought specialist advice in preparing both the security principles and requirements behind the scheme as the programme prepares for the commencement of a procurement process.

Security has been given a very high priority since the inception of the project, and continues to be addressed as a primary issue in all aspects of the Identity Cards Programme.

There is a dedicated full-time team of security professionals, experienced in physical, electronic, procedural, personnel and information systems security, who work closely with all projects to ensure that security aspects are addressed appropriately and effectively. The in-house team are supplemented by readily available advice and practical assistance from CESG, (GCHQ's Communications-Electronics Security Group⁴⁷, the National Technical Authority for Information Assurance), NISCC (National Infrastructure Security Co-ordination Centre⁴⁸), The Security Service and other government departments. This group of experts are highly experienced in dealing with processes and systems that require a high level of security. Security threat and risk assessments have been undertaken as part of this work and such assessments are updated as the National Identity Scheme develops.

⁴⁶ This led to the requirement that the record of data should be "secure and reliable" in section 1.3 of the Act: <http://www.opsi.gov.uk/ACTS/acts2006/60015--a.htm#1>

⁴⁷ <http://www.cesg.gov.uk/>

⁴⁸ <http://www.niscc.gov.uk/>

The Identity Cards Programme and the scheme which it will deliver are subject to Cabinet Office policies and will be accredited by the pan-Government accreditor through the design, procurement, rollout and operational life of the scheme. Systems will not be given approval to operate unless they meet all security requirements.

In building the scheme, account will be taken of technology and business processes that have already been proven in relevant implementations both in the UK and elsewhere.

Public engagement and communication

43. We support the identity cards programme's public communications strategy. However, we believe that this effort has been undermined by damaging media reports. We recommend that the Home Office seeks to inform the identity cards debate with accurate statistics and evidence, and communicates with the media more clearly in addition to seeking to rebut allegations as they arise. (Paragraph 141)

The Government welcomes the committee's support of the programme's communications strategy and their recognition that it has at times been undermined by misleading media reports which often generate confusion and misunderstanding. For example, in January 2006 there were press articles which confused use of the terms "RFID" and "Radio Frequency" and implied that Identity Cards would allow people's movements to be tracked from a distance without the knowledge of the owner. This was untrue and a press statement and a letter of correction were issued by the Home Office.

Evidence such as research findings and known facts are cited where possible to inform the identity cards debate. For example the identity cards website contains facts and figures about identity fraud, fraudulent passports and illegal migrants⁴⁹.

IPS also cite statistics from other programmes where biometric technology is already being used successfully, e.g. the FBI's Integrated Automated Fingerprint Identification System, the UK's NAFIS (National Automated Fingerprint Identification Service) and IDENT1 systems, the United Arab Emirates iris database and the US-VISIT border control database.

Government continually tries to improve its communication of accurate statistics to the press and other interested stakeholders. The experience we have with crime statistics demonstrates that it takes considerable resource over a prolonged number of years to improve the accuracy of the reporting of statistics. In the case of identity cards we do not have the years of experience we have in crime statistics but will continue to apply what we have learnt through the communication of these statistics. As noted during the evidence this is a continual challenge as we tend to have a weak numeracy culture in this country.

IPS regularly seeks to rebut incorrect allegations and misinformation by sending letters to the relevant newspaper, issuing a statement by a Home Office ministers or requesting corrections to information and articles on third party websites. However, even if results are published, which is not always the case, they invariably are given less prominence than the original article. IPS have provided articles for publications such as Electronic Government magazine, London Chamber of Commerce and Industry magazine, Government IT magazine and Parliamentary Monitor.

⁴⁹ <http://www.identitycards.gov.uk/benefits-facts.asp>

During the passage of the Identity Cards legislation, the Home Office press office organised a series of briefings for relevant journalists with ministers and officials from the programme. These included an on-the-record round-table discussion with the Director of the Identity Cards Programme, the Head of the e-Government Unit and the Director of Information Security for Royal Mail. The briefing was attended by a small group of specialist journalists from national newspapers and IT press and covered a range of issues including the reliability of biometrics and the Government's ability to deliver the scheme. A number of interviews with key officials including IPS's Executive Director of Service Delivery have also been facilitated and the Press Office continues to provide regular verbal briefings for relevant journalists to coincide with announcements relating to the scheme. IPS expects to arrange further briefings in the future as its plans develop.



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ISBN 0-10-169422-9



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