



National Audit Office

**REPORT BY THE
COMPTROLLER AND
AUDITOR GENERAL**

**HC 1765
SESSION 2010–2012**

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Home Office and National Policing Improvement Agency

Mobile Technology in Policing

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National Audit Office

Home Office and National Policing Improvement Agency

Mobile Technology in Policing

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Amyas Morse
Comptroller and
Auditor General

National Audit Office

19 January 2012

This report examines the Home Office's rationale for investing in mobile technology, the Agency's management of the Mobile Information Programme and MobileID project, and the benefits secured to date. We also draw out potential lessons for implementing ISIS.

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This report can be found on the National Audit Office website at www.nao.org.uk/police-mobile-technology-2012

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Key facts

£71m

Home Office funding to forces between 2008-09 and 2009-10 for the Mobile Information Programme

£9m

Home Office funding to the National Policing Improvement Agency for central functions and contracts between 2008-09 and 2010-11

41,000

number of mobile devices rolled out by March 2011, not including 10,000 devices already in use prior to the start of the Programme

18 minutes (± 11)

the average increase in time spent out of the station per officer per shift by using mobile technology.

£61 million

total spending on mobile technology by 23 of the 32 forces we have surveyed, 2004-05 to 2011-12.

£35 million

central funding provided to the 23 forces surveyed 2008-09 to 2009-10, of which £4 million remains unspent to date.

£29 million

local spending on mobile technology by the 23 forces surveyed, 2004-05 to 2011-12.

3 per cent

average proportion spent on business change of the 23 forces surveyed.

1 to 151 per cent

the range in the number of devices relative to the number of officers in the forces we surveyed.

£0.6 million

cashable savings achieved from the use of mobile technology by the forces we visited.

Summary

1 Police forces have been using mobile technology to communicate when outside the station for many years, in the form of a radio system and before that the classic blue telephone box. Over the last five years the Home Office (the Department), through the National Policing Improvement Agency (the Agency), has invested in hand-held mobile devices for police forces through two initiatives. The Mobile Information Programme has provided devices such as Blackberrys and personal data assistants, and the MobileID project has provided mobile fingerprint checking devices.

2 The Agency is a non-departmental public body sponsored by the Home Office. It is governed through a tripartite Board comprising the Association of Police Authorities, the Association of Chief Police Officers, and the Home Office. The Agency gives a range of support to forces including information services, such as national policing and crime databases, and the Airwave radio system. The Agency does not mandate what Information Communication Technology (ICT) is used by forces, or how, but it provides the tools, support and data to help forces to change.

3 There are 43 police forces in England and Wales. Chief Constables have operational independence and are independent of political direction. Police forces, working with their police authorities, set priorities for local policing and have a large degree of choice over how it is supported, including their ICT infrastructure. Police authorities are being replaced by elected Police and Crime Commissioners in November 2012.

4 The Information Systems Improvement Strategy (ISIS) is an ICT reform programme, agreed by the Department and Police Service in May 2008. This aims to converge police ICT to a smaller number of common systems and nationally available services, delivered through new commercial arrangements. In the longer term, ISIS envisages a common infrastructure and set of business processes across the Police Service to improve service quality and reduce costs.

5 This report examines the Home Office's rationale for investing in mobile technology, the Agency's management of the Mobile Information Programme and MobileID project, and the benefits secured to date. We also draw out potential lessons for implementing ISIS.

Key findings

Rationale for investing in mobile technology

6 Introducing mobile technology in forces has been driven primarily by a government policy initiative to deliver mobile devices to police officers quickly.

In September 2007, the then Government announced it would provide 10,000 mobile devices to police officers within 12 months. Prior to the announcement, mobile devices had been introduced to a small number of forces, including through a trial by the Agency. However, the introduction of mobile technology by the then Government was a policy decision simply to procure and deploy devices. The Agency established the Mobile Information Programme to provide devices, such as Blackberrys and personal data assistants, to meet three objectives: 1) increase police officer visibility to the public; 2) reduce unnecessary bureaucracy; and 3) increase the efficiency and effectiveness of the police service.

7 The business case for the Mobile Information Programme was constructed around the delivery of mobile devices and therefore considered a narrow range of implementation options. It did not consider adequately how forces would use mobile technology, the amount of local expenditure required or the realism of the announced deadlines.

The business case was constrained by announced deadlines, no central resource funding and the assumption that further funding would not be available. Options to deliver the three main objectives including alternative technology or process improvement were not considered. In reality the programme's main aim was delivering devices as quickly as possible. The Agency undertook a high-level assessment of forces' mobile technology requirements but only limited analysis of their capability and capacity to introduce it. Experience from earlier trials showed that it had taken around 30 months to introduce mobile devices effectively in one force. Given the time required to set the programme up and develop a full business case, the Agency asked forces to implement their solutions in around five to nine months.

8 There was no assessment of the number of devices that each force would need to deploy to maximise the benefits or the impact of partially equipping forces. The Programme Board's decision to allow all forces to receive funding meant that the majority did not receive all of the funding they applied for and could not deploy devices as they had planned.

The proportion of devices procured by forces we surveyed ranged from a device available to one per cent of police officers and police community support officers to 151 per cent. Three forces have more devices than officers as they are used by civilian police staff. However, some nineteen forces have sufficient devices available for less than half of their officers. This has restricted how far these forces can reduce bureaucracy through improving processes and subsequently reducing the cost of back-office functions.

9 The Mobile-ID project and the Mobile Information Programme have not yet delivered Mobile Information devices that also check fingerprints. While the Agency recognised that better value for money could be achieved through device integration, they had also identified that a single ‘integrated’ device would be larger and generally unsuitable for many frontline officers’ duties because of its size and bulk, and the capability not being needed all of the time. The Agency has let a contract which can provide different types of fingerprint checking devices but to date has only procured the standalone MobileID device.

10 The Mobile Information Programme met its overriding aim of rolling out devices. The Mobile Information Programme distributed £71 million of central funding to forces which, by March 2011, had rolled out over 41,000 devices to police officers and police community support officers, in addition to around 10,000 already in use, consistently exceeding the milestone targets for delivery. In addition, the Agency used some £9 million to fund central functions and contracts. The programme expanded and accelerated some forces’ existing mobile projects and in other forces, enabled new investment in mobile technology. The national funding provided significant impetus to forces in deploying mobile technology. In addition to the central funding, 23 of the forces we surveyed have invested around £29 million since 2004-05.

11 The Mobile Information Programme has, on average, increased the visibility of police officers to the public. As a result of using mobile devices, officers are spending more time out of the station, although there is considerable variation. Based on measurement across 11 forces, the Agency estimates that through using mobile devices, each police officer can, on average, spend an additional 18 minutes out of the station per shift (plus or minus 11 minutes). The variation of additional officer time resulting from using mobile devices is large, partly as a result of different processes used by forces, and partly because reliable baselines from many of the forces funded in the first phase were not available to measure any improvement. The Agency’s results range from around 116 minutes per officer per shift out of station to around minus 109 minutes per officer per shift (meaning more time spent in station). The majority (20) of the forces we surveyed agreed that mobile devices gave their officers some additional time out of station.

12 Overall costs of procuring and using mobile information devices to date compare reasonably with external comparators. The total spending on procuring and using mobile devices from 2004-05 to 2011-12, for the 23 forces we surveyed, is likely to be around £61 million. This compares reasonably with the non-policing organisations we have examined. Using typical unit costs from these comparator organisations, we have estimated broadly that for a similar roll-out of devices, the equivalent services would cost around £54 million.

13 There has been some measurement of the Mobile Information Programme's objectives to reduce bureaucracy and improve the efficiency and effectiveness of the Police Service. The Agency's central benefit measurement work partially examined efficiency savings resulting from the programme and the use of electronic forms through process improvement. However, this was stopped in mid-2010 when the programme closed. Forces are finding it difficult, unaided, to quantify and measure directly attributable benefits of mobile technology.

14 There are some good examples of process improvement aligned with the use of mobile technology to improve efficiency and reduce bureaucracy. However, we found limited evidence of process improvement in some forces. Some forces have both integrated their mobile devices with day-to-day operations and taken advantage of improvements to processes enabled by new technology. Examples of improvement include police officers not needing to re-enter data by using their mobile devices to complete and submit crime and intelligence reports, and less time spent obtaining information from control rooms over their radios. Other forces have not sought to achieve the same levels of process improvement or have faced barriers to making changes. Twenty-two forces responding to our survey cited drawbacks with their mobile technology projects including the speed with which forces were asked to roll-out devices, low usage, technical problems or limitations, or lack of senior buy-in to the use of mobile technology. These are barriers to effective process change.

15 While the Mobile Information Programme did not explicitly set out to deliver cashable savings, these should have followed from objectives to reduce bureaucracy, increase efficiency and contribute to better policing. The focus on increasing visibility and supporting front-line officers means that cashable savings to date have been limited. Since the programme was launched, the Police Service has had its central grant cut by some £2 billion or 20 per cent in real terms by 2014-15, increasing the need for forces to find cashable savings. Of the 32 forces which responded to our survey, only ten claimed some form of cashable savings from using mobile technology and these are relatively minor. Some forces are, however, predicting greater savings in the future, for example in reducing control room costs. Reducing the cost of back-room functions has partly been constrained by the proportion of officers equipped with devices, as traditional processes still need to be maintained.

16 The Agency put in place two central framework contracts to encourage the majority of forces to achieve convergence in ICT infrastructure and deliver economies of scale. Forces have, however, selected different suppliers, partly due to failings in these central arrangements. The Programme Board hoped that the majority of forces would use either of the two contracts the Agency offered but these depended on a certain level of device take-up. Faced with low take-up and technical problems with one of the contracts, the Programme Board chose not to mandate the use of central contracts, leaving forces to make their own decisions on suppliers. In addition to adopting different suppliers, forces have chosen to integrate their devices with their day-to-day operations in different ways reflecting their existing processes and IT systems. Therefore, police officers in different forces have varied levels of access to, and interaction with, local and national databases, record management systems and other functions such as cameras, email and diary, via their mobile devices.

Information Systems Improvement Strategy (ISIS) – the future strategy for ICT in policing

17 The experience of implementing mobile technology reinforces the challenge of achieving convergence of ICT. ISIS aims to save the Police Service £180 million annually from 2014-15 onwards. The Department now mandates forces to use central procurement for some standard ICT hardware and off-the-shelf software. The remainder of ISIS relies on forces engaging, and implementing its aims, voluntarily. However, it is unclear how forces will be convinced that they can be better supported, at reduced cost, through using nationally available services and adopting common business processes.

18 The ISIS suite of programmes does not include the Mobile Information Programme or any successor. However, some key projects which are included within ISIS may be delivered in part through mobile devices, for example, the Electronic Witness Statements. Opportunities to converge ICT and business processes through using mobile technology effectively are not being captured or shared. ISIS comprises a series of programmes and projects which have a strong emphasis on infrastructure and business systems. As forces procure new devices or replace their existing devices, there are opportunities to learn from forces that are using their mobile devices in different ways. For example: using cameras to take and submit digital photos as evidence; generating information to deploy resources efficiently; and putting officers more easily in touch with the public. The Emergency Services' Mobile Communication Programme – which is not part of ISIS – aims to develop options for replacing the current emergency services' radio system, known as 'Airwave'. It is not yet clear whether it will seek to bring together all types of mobile devices currently used by the emergency services.

19 The arrangements for future ownership of the strategy are yet to be clearly worked out. ISIS is currently led by the Agency, which is being phased out in 2012. The Government plans to establish a company 'NewCo' by spring 2012, owned and led by the Police Service, to procure and manage ICT services. A programme team is developing the arrangements for NewCo.

Conclusion on value for money

20 The significant impetus provided by the £71 million of national funding given to forces helped them to adopt mobile technology more widely, within the short timescales planned, and at reasonable cost. While there is large variation, many forces report an increase in the time officers spend out of station as a result of using a mobile device. However, as the benefits for most forces do not extend beyond this basic level then value for money has not yet been achieved. To date only a minority of forces, around one in five, have used mobile technology effectively to improve the efficiency of their business and operational processes, and cash savings have been minimal. There is still the opportunity to secure value for money from existing mobile technology if a greater proportion of forces use it to support more efficient processes and secure savings in their back-office activities.

Recommendations

- a There has been considerable variation across forces in the effective use of process improvement and business change using mobile technology and the Mobile Information Programme has closed.** The Department and the Police Service need to recognise that only a minority of forces have been effective in maximising the benefits from the investment. The Department and the Police Service should learn from those forces that have been using mobile technology effectively to improve processes and have integrated their mobile devices with day-to-day operational processes. The Department and the Police Service should provide support to all forces to enable them to gain more benefit from the technology they have now.
- b The rationale for investing in mobile technology was insufficiently developed as it was based on the requirement to deliver devices quickly within a fixed budget and did not consider the impact of partially equipping forces.** The Department and the Police Service should base any future service-wide investment decisions on:
 - robust analysis of police force requirements, costs and their ability to use new technology effectively to optimise benefit;
 - analysis of the trade-offs between supporting all forces, achieving a fuller capability within a smaller number of forces and a staged approach over a period of time based on the capacity and capability of forces; and

- analysis of the thresholds at which equipping a greater proportion of officers with mobile devices would enable back-office processes to be significantly streamlined or removed.
- c The Agency encouraged forces to adopt one of two common mobile technology contracts in pursuit of convergence of ICT infrastructure. Forces have however developed different solutions, which reinforces the challenges of delivering the aims and objectives of ISIS.** In addition to converging ICT under ISIS the Police Service will, in the near future, have to update its mobile technology. The Department in partnership with the Police Service needs to:
- be clearer for future programmes about the degree of convergence sought in technology and how this is to be achieved, working with forces across a spectrum of influence ranging from persuasion to direction. Where the approach depends on forces buying-in voluntarily they need to be persuaded that the investment will benefit officers and the public, the technological and commercial arrangements are robust and forces will be supported to change the way they work;
 - clarify future ownership of ISIS and the extent to which NewCo, or other organisations, has a role in facilitating the Police Service in pursuing wider convergence under ISIS, for example, nationally available services, common business processes and cross Criminal Justice Service reform;
 - use the opportunity presented by future generations of mobile technology, including the proposed replacement of the Airwave radio system, to examine the merits of further convergence of infrastructure and improving business processes; and
 - examine whether there are opportunities for converging with wider government approaches to mobile technology, such as under the Government's ICT and End User Device Strategies.

Part One

ICT in policing

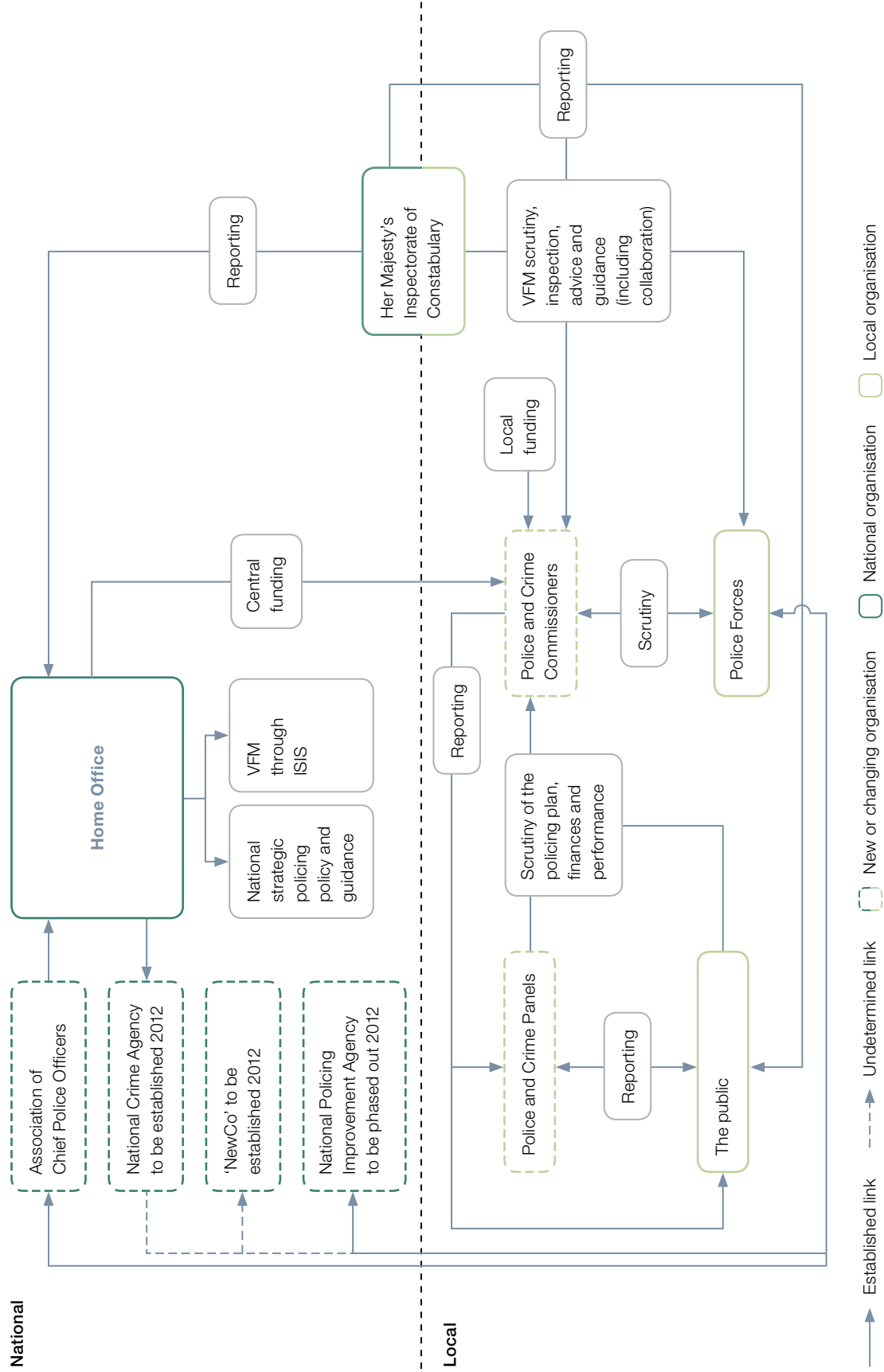
Police governance

1.1 The governance of policing is summarised at **Figure 1**. There are 43 territorial police forces in England and Wales. Chief Constables have operational independence to direct and control their force, independent of political direction. The role of police authorities is to ensure that the public has an efficient and effective local police force and provide a range of oversight responsibilities. Police forces, working with their authorities, set priorities for local policing and have a large degree of choice over how it is supported, for example their ICT infrastructure. This independence will be strengthened when police authorities are replaced by elected police and crime commissioners in November 2012.

1.2 Police forces are funded by a combination of central government grants (from the Home Office, and the Department for Communities and Local Government or Welsh Assembly Government) and local precepts set by the police authorities and collected as part of the council tax. Central funding has risen in recent years. However, following the 2010 Spending Review, forces have been tasked with finding total savings over four years of around £1.3 billion, or £2 billion (20 per cent) in real terms. This assumes that precepts are frozen at 2010-11 levels.

1.3 The Police Service is currently governed by a tripartite structure of Chief Police Officers, Police Authorities and the Home Secretary. The structure is applied wherever there is a requirement for national coordination or delivery, for example, procurement and capacity building. A tripartite High Level Working Group provides governance to the Police Value-for-Money Programme which comprises four key areas: converging ICT through ISIS; nationally-led police procurement; delivering support services through collaboration and private sector partnering; and developing the Police Service's capacity and capability for transformational change.

Figure 1
The changing policing landscape



Source: National Audit Office

The strategy for ICT in policing

1.4 The Department acknowledges that existing arrangements for police ICT are complex and costly. The Agency estimates that total spending on police ICT is around £1.5 billion per year, some 10 per cent of total annual spend on policing. Each of the 43 forces has developed individual business processes which are supported with bespoke ICT systems. As a result, there are some 2,000 force systems, connected through local infrastructure, managed locally by around 5,000 staff. ISIS is a reform programme for the Police Service, founded with the objective that police ICT should be delivered in a more consistent and affordable manner. The strategy should, over time, drive local forces towards using common systems to improve service quality and reduce costs.

1.5 ISIS has been developed over a number of years. In May 2008, the Department and Police Service endorsed ISIS and established a programme of work to deliver it. ISIS has since been revised significantly but many of the principles remain the same and it is underpinned by six priority areas (**Figure 2**). The strategy comprises a series of ICT-related programmes and projects that aim to improve operational effectiveness by using information to standardise business processes and support collaboration across policing and the Criminal Justice System. Currently, the strategy aims to realise £180 million cash savings from police ICT, per year, from 2014-15.

Figure 2
The priority areas for the Information Systems Improvement Strategy

Priority Area	Aims
1 Procurement	Reduce the unit price of goods and services and the costs of going to market, ensuring new commercial agreements can be re-used across the police service.
2 Migration to nationally available services	Reduce number of force-owned and -operated systems. New and replacement systems offered as nationally available services.
3 Common infrastructure	Reduce reliance on, and investment in, local infrastructure. Over time forces migrate their local networks to the new Public Service Network.
4 Cross-Criminal Justice System Reform	Digital working across the Criminal Justice System by April 2012 to release significant efficiency savings. Police ICT element to deliver digital case files.
5 Common Business Processes	Police service to migrate to common business processes, supported by nationally available services and common infrastructure.
6 National Commercial Partnerships for ICT	Explore the options for a nationally available agreement for providing ICT.

Source: National Policing Improvement Agency

1.6 The arrangements for delivering ISIS are yet to be clearly worked out. It is currently managed by the Agency, which is being phased out by November 2012. Aspects of the Agency's role will be migrated to 'NewCo', a company set up by the Home Office to negotiate and manage ICT contracts for the Police Service. A programme team has been formed to develop the arrangements for NewCo. However, NewCo will not take on responsibility for the management of ISIS. The Department plans that ISIS will be owned directly by the Police Service but how ISIS will be delivered in practice is still to be determined. Final decisions have yet to be taken on managing the Police Service's critical national infrastructure, such as the Police National Computer, or other aspects of the Agency's work including supporting business change.

Mobile technology programmes

1.7 The Agency had been pursuing mobile technology since before the Department and the Police Service agreed ISIS. It undertook trials of mobile devices with five forces¹ from early 2006. These trials demonstrated that the use of mobile devices had the potential to increase the amount of time police officers spend out of the police station and reduce bureaucracy if improvements to business process were made.

1.8 In September 2007, the then Government announced it would provide 10,000 mobile devices to police officers, over the next two years. The Mobile Information Programme, funded by the Home Office through the Agency, was established in early 2008 to provide mobile devices (such as Blackberrys and personal data assistants) to achieve three objectives:

- reduce unnecessary bureaucracy;
- increase the visible presence of front-line staff in public; and
- increase the efficiency and effectiveness of the police service.

The Mobile Information Programme was closed by the Agency in 2010.

1.9 From 2003 to 2008, the Agency conducted trials in forces of the Lantern mobile fingerprint device, which formed the basis of the MobileID project. The primary aim of the programme is to identify suspects accurately without arresting them and returning to the station, leading to quicker and more appropriate options for dealing with offenders. The intended benefits include: keeping police officers on the front line by reducing unnecessary returns to stations for identification purposes; increasing the number of offenders brought to justice per officer; and preventing unnecessary arrests.

1.10 We have examined the Mobile Information Programme and MobileID project. The report examines the rationale for investing in mobile technology, the implementation of mobile technology in forces and the future strategy of technology in policing. Our methodology is at Appendix One.

¹ Bedfordshire, Hertfordshire, Staffordshire, Strathclyde and British Transport Police.

Part Two

Rationale for investing in mobile technology

The Mobile Information Programme

2.1 Introducing mobile technology in forces has been driven primarily by the policy to deliver mobile devices to police officers quickly. In early 2008, the Department allocated £50 million of capital funding to deliver 13,500 devices, 9,000 by September 2008 and the remaining 4,500 by March 2009. The Department increased the funding in July 2008 by £30 million to deliver a total of 20,000 devices by September 2009 and 30,000 by March 2010. This central funding excluded any additional spending by police forces. The Mobile Information Programme distributed in total £71 million of central funding to forces and £9 million to fund the Agency's central support, contract development and benefits measurement.

2.2 In February 2008, the Mobile Information Programme Board (the Board) was set up with a tripartite structure, chaired by the Association of Chief Police Officers, to direct and coordinate investment in mobile technology. The Board commissioned the Agency to meet five aims:

- Deliver the Government's commitment to equip front-line police officers with mobile devices.
- Provide a robust framework for police forces to apply for investment in mobile technology.
- Create a common procurement contract, called the 'acceleration package', to encourage the majority of forces to achieve convergence in ICT infrastructure and deliver economies of scale.
- Encourage business change, develop a framework to realise benefits and enable officers to have access to national databases using their mobile devices.
- Support the development of a mobile device, which can use both commercial mobile networks and the emergency services 'Tetra' network.

Business case

2.3 The Agency developed a strategic outline business case which was considered by the Department's group investment board in April 2008. The business case was constrained by factors including the announced deadlines, lack of resource funding (Home Office funded capital investment only) and the potential conflict with forces' existing plans to provide mobile policing. The Agency undertook a high-level assessment of forces' mobile technology requirements but only limited analysis of their capability and capacity to introduce it. The investment board criticised the business case for lacking sufficient cost-benefit analysis between the options, not knowing whether local forces were prepared for mobile technology and not clearly understanding the costs or local funding required.

2.4 The business case was constructed around the delivery of mobile devices to meet the three objectives (Paragraph 1.8) but considered a narrow range of implementation options broadly in line with the Board's five aims (Paragraph 2.2). It did not consider adequately how forces would use mobile technology or the amount of local spending required. We conclude that there was little consideration of the need for these devices. Alternative options to meet the objectives may have yielded a better balance of benefits and costs, but were not evaluated. For example, different types of technology (such as improved back-office systems) and increased emphasis on improving processes (reducing time taken to complete forms) were not considered.

2.5 The scope of the Programme was bound by the announced funding of £50 million, which was considered sufficient to meet the objective of delivering the 13,500 devices, and the Board's assumption that no further funding would be available. The business case did not assess the number of devices that each force would need to deploy to meet the three objectives and did not consider the impact of partially equipping forces (Paragraph 3.8).

2.6 Experience from the Mobile Information trials showed that it had taken around 30 months to introduce mobile devices effectively in one force. However, the Agency asked forces to implement their solutions in five to nine months, and the Agency or the Board did not ask the Department to change the delivery targets, to enable better planning, process improvement and business change.

Funding allocation

2.7 The Board allocated funding in two phases (**Figure 3**). Launched in February 2008, phase one attracted applications from forces totalling around £100 million (for an available £50 million). In July 2008, the Department provided an additional £30 million for phase two which attracted applications totalling £50 million.

2.8 The Agency developed criteria to deal with the oversubscription. During phase one these included:

- prioritising applications by forces that had already some investment in mobile devices to minimise the risk of missing the deadlines;
- prioritising applications from collaborations between forces, and proposals that took advantage of the acceleration package;
- reducing each force's individual allocation by removing funding already provided for trials; and
- removing spending on business change activity within each force. The Board assumed this would be covered by the Agency's central project.

Figure 3

Mobile Information Programme funding timeline

Month	Year	Activity
September	2007	Announcement to deliver 10,000 devices.
February to April	2008	Phase one, the Agency invites forces to bid for funding.
May to June	2008	Of the £50 million provided, 21 forces allocated funding of £40.1 million and around £9 million allocated to the Agency to fund central support.
21 May	2008	Additional funding announced, £10 million in 2008-09 and £15 million in 2009-10. Funding for 2008-09 was increased to £15 million in October 2008.
June and July	2008	Phase two, unsuccessful forces asked to reapply under different criteria.
September to November	2008	Twenty-eight forces allocated funding of £30 million.
February and March	2010	Underspend of £1.4 million on the Agency's allocation distributed to forces through a further application process.

NOTE

- ¹ The Agency received applications from 49 forces, covering the territorial forces of England and Wales, Scottish forces through the Association of Chief Police Officers (Scotland), the Police Service of Northern Ireland, as well as other forces, such as the Civil Nuclear Constabulary.

Source: National Audit Office analysis

2.9 The Agency used different evaluation criteria to deal with oversubscription in phase two. These reflected the Programme Board decision to allow all forces to benefit, including those with no experience of mobile devices. Funding was allocated by capping the cost per device at around £2,000 with the intent of delivering between 50 to 60 per cent of the full award.

2.10 There was significant pressure on the Agency to allocate the funding to forces to meet the announced deadlines. The Agency evaluated each force's ability to meet the milestones for delivering devices rather than how forces would achieve the benefits. The majority of forces did not receive the level of funding that they applied for (**Figure 4** overleaf) and therefore could not deploy devices to the extent that they had planned. The Agency allocated funding for collaborating forces to a lead force, which distributed funding to their partner forces. Of the 32 applications for funding, 7 were made jointly. However, few of the forces which applied jointly subsequently collaborated to procure and implement mobile devices.

2.11 The Agency distributed central funding under the terms of a memorandum of understanding with each force. The memorandum required that forces carried out their plan in accordance with the application, for example to meet the milestone targets. However, there was no penalty if forces did not implement their plans as described, for example some forces have yet to spend the money. In reality, the Agency cannot mandate forces and therefore has little control over each force's investment decision.

Central funding

2.12 The Agency received some £9 million from the Board from the phase one funding to help deliver the Programme's objectives. This included:

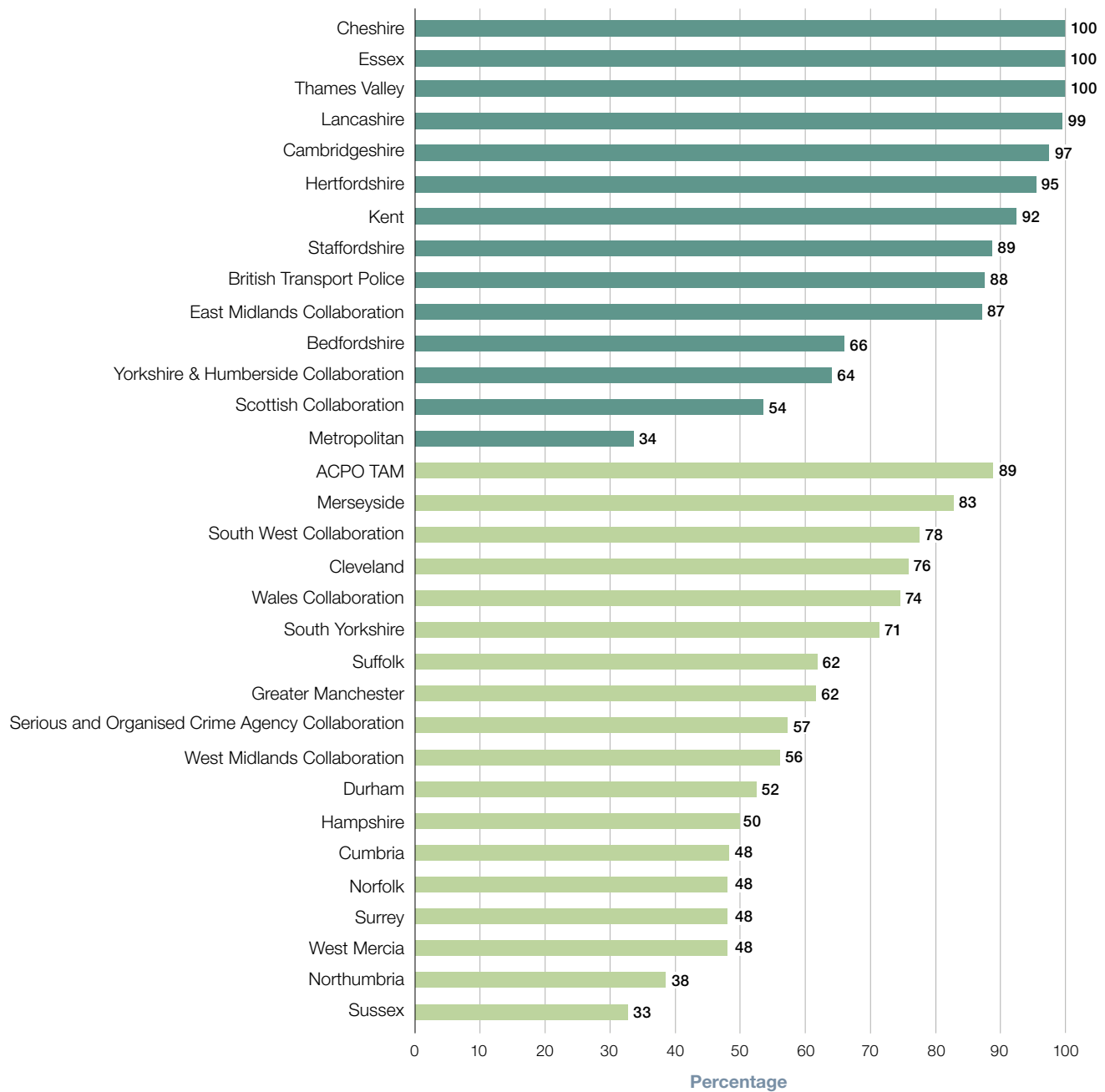
- a common procurement contract, called the 'acceleration package', to encourage the majority of forces to achieve convergence in ICT infrastructure and deliver economies of scale; and
- a framework that could be used by forces and the Agency to measure the benefits.

MobileID Project – trialling the technology

2.13 MobileID is a fingerprint checker connected wirelessly using an encrypted Bluetooth connection to a mobile device. The MobileID device is similar to the devices used by the Mobile Information Programme but with a single purpose – to take a fingerprint, search the national database and return the result to the officer. The 'Lantern' trial demonstrated successfully that remote mobile fingerprinting could assist in positively identifying individuals, avoiding arrests for identification purposes and freeing-up police officer time. From the Lantern trial the Agency estimated that, on average, using the devices could save at least 65 minutes per encounter. The Agency's trials data shows that around 50 per cent of all searches of the national fingerprint database are positive, of which 32 per cent result in an avoided arrest. Therefore, one check in six would avoid an arrest for identification purposes. The trial was successful and the Agency determined that mobile fingerprinting should continue.

Figure 4

Total funding received from the Mobile Information Programme as a percentage of funds applied for



- Phase one applications
- Phase two applications

NOTE

1 Excludes £1.4 million funding following the 2010 underspend on central support.

Source: National Audit Office analysis

Business case

2.14 The MobileID business case included a clear examination of the costs and benefits, based on a robust trial of devices. The MobileID project and the Mobile Information Programme have not yet delivered Mobile Information devices that also check fingerprints. While the Agency recognised that better value for money could be achieved through device integration, they had also identified that a single ‘integrated’ device would be larger and generally unsuitable for many front-line officers’ duties because of its size and bulk. The specialist nature of fingerprint checking also means that not every officer would need the capability all of the time, as opposed to their need for a Mobile Information device. The Agency has, however, let a contract which can provide different types of hand-held fingerprint checking devices. These include the stand-alone MobileID device currently deployed to forces, as well as a peripheral scanner attachment for typical Mobile Information devices. To date, the Agency has chosen not to pursue the procurement of the peripheral additions to Mobile Information devices through the contract.

Funding and roll-out

2.15 The MobileID project including the device is provided as a service to police forces by the Agency through a contract with 3M Cogent. The programme has been funded partly by a £2.5 million grant from the Association of Chief Police Officers (paying for the devices and back-office integration) and partly by police forces themselves (service provision and device airtime). The cost of the service to police forces is around £1,800 annually per device,² over the three-year service contract. The programme has now rolled out 682 devices to 24 forces, with an additional 145 awaiting deployment.

² Excludes device costs funded by a grant from the Association of Chief Police Officers.

Part Three

Implementation

Mobile Information Programme

3.1 From early 2008, the Programme Board intended that forces should have a quick and simple route to procuring their mobile technology. The Agency allowed for the possibility that forces might pursue their own solutions but anticipated that the majority of forces would be attracted to use one of two framework contracts which it set up, called the 'acceleration package' (**Figure 5**). These contracts were designed to encourage the majority of forces to achieve convergence in ICT infrastructure and deliver economies of scale, avoiding the need for forces to compete separately.

3.2 The Agency agreed framework contracts dependent on a certain level of take-up which depended on forces choosing to use the acceleration package, introducing a clear risk. The Agency assessed that the risk of not achieving the minimum number of devices was low. By late 2009, take-up of the acceleration package fell from 20 forces to just 5. The Agency reported internally that confidence among forces that the acceleration package would provide a cost-effective mobile solution was low. Forces selected different suppliers, reassessing their requirements and choosing suppliers which they judged could better meet their needs at lower cost.

3.3 Faced with low take-up and technical problems with one of the solutions, the Programme Board chose not to instruct forces, leaving them to make their own decisions on suppliers. In doing so, the Board recognised that forces would be diverging from the common solutions provided by the acceleration package, losing the opportunity to achieve convergence of solution across forces and economies of scale through procurement. The Agency acknowledges that developing the acceleration package was more complex than expected, took longer than anticipated and that they failed to adequately reduce the risks.

Device roll-out

3.4 The Mobile Information Programme met the policy imperative to roll out devices and provided significant impetus to forces in deploying mobile technology. The Programme distributed £70 million of central funding to forces which by December 2010 had rolled out around 41,000 devices to police officers and police community support officers, exceeding the milestone targets for delivery (**Figure 6** on page 24). Around 10,000 devices were in use by forces prior to the start of the programme. The Programme expanded some forces' existing mobile projects and in other forces enabled new investment in mobile technology.

Figure 5
Acceleration package timeline

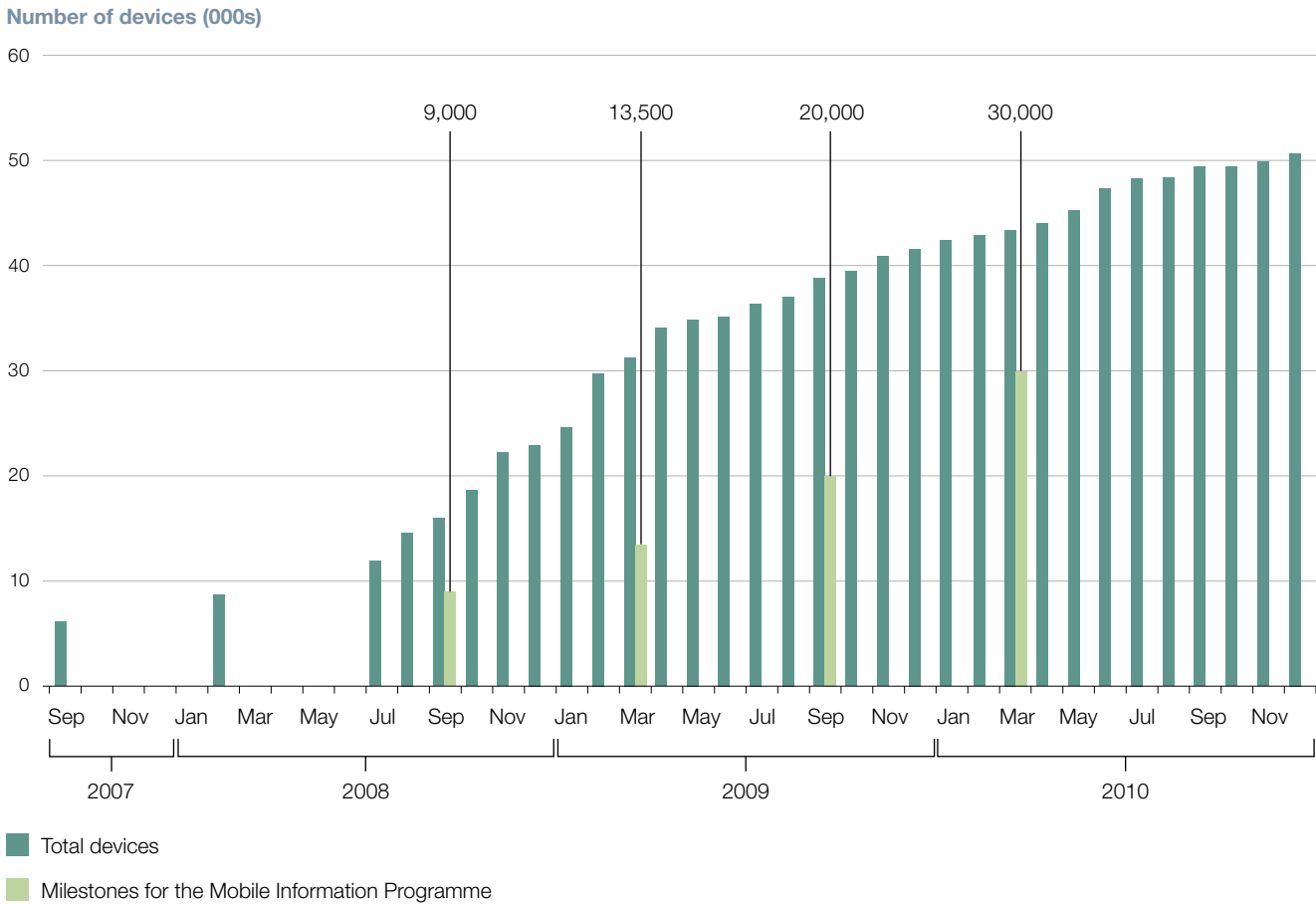
Date	Activity	Description
February 2008	Decision to create the acceleration package	The Programme Board intended that forces should have a quick and simple route to procuring their mobile technology. The Agency designed the acceleration package to encourage the majority of forces to achieve convergence in ICT infrastructure and deliver economies of scale.
March 2008	Award of the acceleration package	The two companies selected by the Agency to provide the acceleration package, Airwave and Cable & Wireless, had existing framework contracts with the Agency. To be commercially viable, the contract with Airwave required a minimum of 500 devices, while the contract with Cable & Wireless required at least 7,000 devices to be procured. Twenty forces indicated in their applications for funding that they might use the acceleration package to procure around 8,000 devices.
January 2009	Some forces withdraw from the Cable & Wireless option	The collaboration of Welsh forces ¹ revised their plans because they did not receive the full funds they had applied for and considered they could get a more cost-effective solution. This change reduced the number of devices below the minimum threshold for the Cable & Wireless contract. The Board approved the change on the basis that it still encouraged collaboration and convergence of Police Service ICT systems.
March 2009	Amended contract agreed	Cable & Wireless agreed a lower threshold of 4,500 devices.
2009 onwards	Development of the Airwave solution	The acceleration package provided by Airwave experienced delays during its development with forces. Of the nine forces we visited, two use the Airwave acceleration package and have required further development of their solutions over the period of the contract. Both these forces also told us of initial technical difficulties they experienced with the solutions, which have now been resolved.
October 2009	More forces withdraw from the acceleration package	Confidence among forces in the acceleration package was low. Sixteen of the phase two forces re-evaluated their options, with a greater emphasis on cost and functionality. The Agency estimated that only five forces, procuring around a total of 2,000 devices, were still committed to the acceleration package, and this was agreed with Cable & Wireless. Faced with low take-up of the package, the Board decided to allow forces to make their own investment decisions with the funding provided.

NOTE

¹ South Wales, Dyfed Powys and Gwent – North Wales while part of the collaboration were not part of the application for funding as they already had an existing mobile solution.

Source: National Audit Office analysis

Figure 6
Progress of device roll-out against milestone delivery targets



Source: National Audit Office analysis

3.5 Police forces have invested significantly in mobile devices through a combination of central funding and local investment. In addition to the central funding, 23 of the forces we surveyed have invested locally around £23 million since 2008-09 (Figure 7). However, there is no central visibility of this spending to enable the Agency or the Department to assess whether value for money has been achieved across the Police Service. Of the £35 million central funding awarded to those forces across 2008-09 and 2009-10, we estimate that some £4 million remains unspent in 2011-12. Eight forces³ we surveyed delayed spending some or all of their grant funding to plan and trial using devices, with the agreement of the Agency.

3.6 Total spending of the programme forecasted to the end of 2011-12, for the 23 forces we surveyed, is some £61 million. This compares reasonably well with the non-policing organisations we have examined (Figure 10). Using typical costs from these comparator organisations, we have estimated broadly that for a similar roll-out of devices, the equivalent services would cost around £54 million.

3 Greater Manchester, Sussex, Durham, Dyfed-Powys, Leicestershire, West Midlands, West Mercia and Warwickshire.

Figure 7
 Surveyed police forces' spending on mobile projects since 2004-05 including central funding contribution



NOTES
 1 Financial data from 23 forces that replied to our survey providing financial data in a form we could analyse.
 2 Spending for the 23 forces, 2004-2008, before the start of the Programme is around £6.4 million.

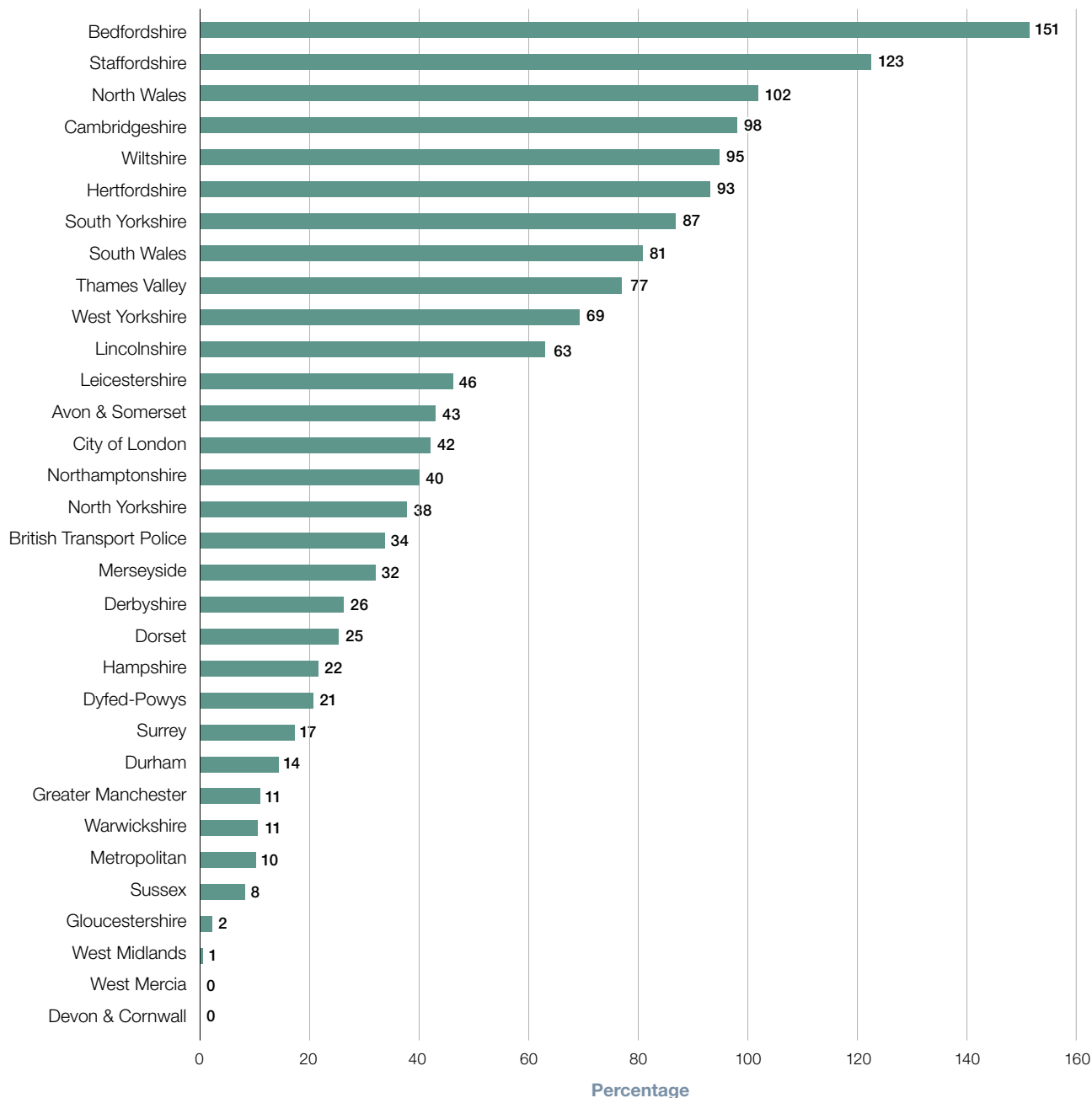
Source: National Audit Office survey

The number of officers with devices

3.7 For the majority of the forces we surveyed, the funding available did not enable every officer to receive a mobile device. The number of devices procured by forces we surveyed ranges from a device available to 1 per cent of their police officers and police community support officers to 151 per cent (**Figure 8** overleaf). Three forces have more devices than officers as they are also used by civilian staff. However, some nineteen forces have sufficient devices available for less than half of their officers.

Figure 8

Percentage of devices in surveyed forces relative to the number of officers and police community support officers as at August 2011

Police Force**NOTES**

- 1 Forces where percentage of officers is greater than 100 per cent have in most cases also deployed to civilian police staff and back-office personnel.
- 2 Warwickshire has chosen to deploy devices on a pool basis, increasing the availability of devices from around 12 per cent to around 40 per cent. However, as most forces issue devices on a personal basis, the data is presented on that basis for consistency.

Source: National Audit Office survey and Her Majesty's Inspectorate of Constabulary data

3.8 Most of the forces we visited have deployed devices to officers where they perceive maximum benefits to be achieved. For example in the Metropolitan Police, Community Support Officers have devices because while using their radios these officers are often left waiting in a queue for a control room operator, as higher priority enquiries from response officers are dealt with. In many forces, as a consequence of not being able to provide every officer with a device, traditional paper-based processes need to be maintained and resourced to support the officers without devices, which limits cashable savings.

3.9 We found a significant diversity of mobile capability across the 32 forces who responded to our survey. Forces have developed different mobile information systems, both in type of device and functionality, to deal with their local situations. Devices used include: Blackberrys; personal data assistants; tablets and laptops. The functionality available can be broadly grouped into three main categories:

- **Pull** – an officer can request information from local and national databases, for example, the Police National Computer or a local crime recording system.
- **Push** – information can be sent out to officers, for example, regarding an enquiry they are undertaking, a wanted criminal or a crime scene.
- **Interactive** – Officers can send and request information, provide live updates to crime or intelligence, or both, recording systems and fill in online forms.

3.10 Police officers in forces we visited have varied levels of access to, and interaction with, local⁴ and national⁵ databases via their mobile devices. For example, those forces using the NICHE records management system have:

- officers with no direct access to the system via their mobile device (West Yorkshire);⁶
- officers who can view information on the system directly (Hampshire); and
- officers who can edit and update entries on the system (South Wales Police).

Some forces provide telephone, email and diary through their mobile devices but others do not. Officers we spoke to felt that these functions helped them to deal more effectively with the public. In some forces, officers can use the camera on their mobile device to capture digital evidence, whereas in others officers use a separate camera.

Process improvement and business change

3.11 Process improvement and business change is fundamental to successfully deploying mobile technology. The Agency supported forces by sharing specifications from other forces and passing on learning, through dedicated regional business support officers. However, the programme assumed that forces would have the resources and knowledge to implement business change and process improvement.

⁴ Typical local systems include crime recording and records management systems (such as NICHE or ATHENA), command and control systems.

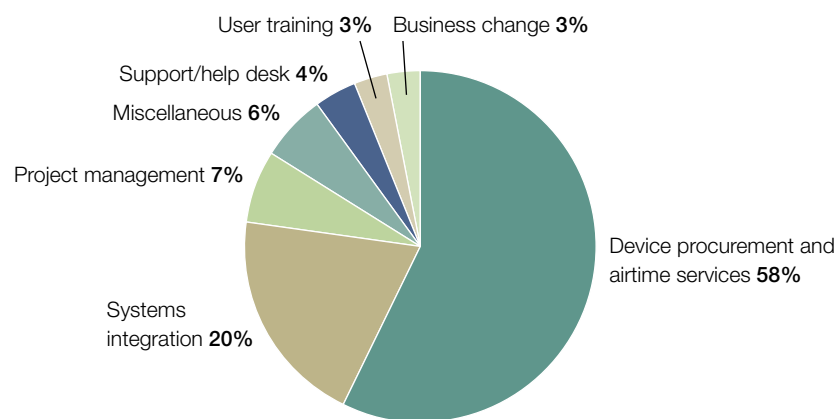
⁵ National systems include: the Police National Computer, Voters Registration database, the Driver and Vehicle Licensing Agency database and Police National Legal Database.

⁶ Officers can view data from the NICHE database but indirectly through a separate search application.

3.12 Twenty-three forces that replied to our survey provided financial data in a form we could analyse. For these forces, around 3 per cent of total spending on mobile technology was on business change (**Figure 9**). In their survey responses and case study visits, forces told us that this low investment was because of the short timescales (Paragraph 2.1), and having to spend the capital funding in the year that it was provided. These factors constrained the level of both planning and process improvement activity that was achieved.

Figure 9

Twenty-three surveyed police forces' areas of spending on mobile technology 2004-05 to 2011-12



NOTE

1 Figures do not sum to 100 per cent due to rounding.

Source: National Audit Office survey

3.13 From our survey and visits to forces, we found a diversity of practice in process improvement and business change. There are some good examples of process improvement aligned with the use of mobile technology, which also exhibit much of the good practice associated with our external comparators (**Figure 10**). These include:

- not needing to re-enter data by officers using mobile devices in completing and submitting crime or intelligence reports, stop and search forms, and fixed penalty notices (Staffordshire, Surrey and Metropolitan Police Forces);
- less time spent getting information from control rooms over their radios (Bedfordshire and Metropolitan Police Forces); and
- fundamentally re-designing the majority of processes and the way forces operate, with mobile information as a key component (Warwickshire and Wiltshire Police Forces).

We found limited evidence of process improvement aligned with the use of mobile technology in other forces we visited.

Figure 10

Approaches taken by other sectors

We have summarised the common factors that lead to the successful implementation of mobile devices from five comparator organisations: Royal Mail; South East Water; Kirklees Primary Care Trust; and the National Health Service Mobile Health Worker Programme.

Comparator approach

Business model

Mobile services have been driven by a clear need for change, for example, business process improvement or structural change, or a pressing need for reducing operating costs.

Implementation and management

Front-line users were involved in specifying the technology. A high proportion of users, typically front-line staff, were issued with a mobile device.

Process

Front-line users have been involved in designing the technology to achieve new ways of working. Users were trained to use the technology.

People

Incentives have been used to help encourage change, for example by showing people how process changes benefit them and the organisation.

Technology

In areas of poor mobile connectivity, applications can be used in both online and offline modes.

Observation of good practice from case study visits to police forces

Of the forces visited most, but not all, had clearly defined what they required, including the level of process improvement and benefits expected. Only around half of the nine forces we visited had used continuous improvement techniques when implementing mobile devices.

In the forces we visited police officers had been involved in determining how devices would be used, in some cases developing new ways of working and improving processes. The impacts and benefits were dependent on the number of devices available per officer.

We found that officers were trained to be super-users, who could provide assistance within their own stations and shifts. Formal training in both the mobile devices and new ways of working was also provided to all officers.

Many forces incentivised officers through supervision and publishing data on usage internally.

In forces where geography causes loss of signal, officers can still input information offline.

Source: National Audit Office

3.14 Twenty-two forces responding to our survey cited drawbacks with their mobile technology projects including, the speed with which forces were asked to roll out devices, low usage, technical problems or limitations of the solution, or lack of senior buy-in to using mobile technology. These drawbacks were also identified in our case study visits. We consider these to be barriers to effective process change.

3.15 The effects of the funding allocation, the Board's decision to allow forces to make their own decisions on suppliers and forces' own choice of device and functionality have led to a significant diversity in mobile technology across the Police Service. There is a large variation in functionality, cost and ability to deploy mobile technology to Police Officers and Police Community Support Officers in the forces we surveyed (**Figure 11**). We have defined functionality across eight functions as devices being able to:

- connect to local crime database;
- connect to local intelligence database;
- connect to the Police National Computer;
- fill in forms;
- capture digital evidence;
- submit digital evidence;
- print locally; and
- perform other tasks, for example, access to more local databases, search functions or specialist applications.

Measuring and delivering benefits

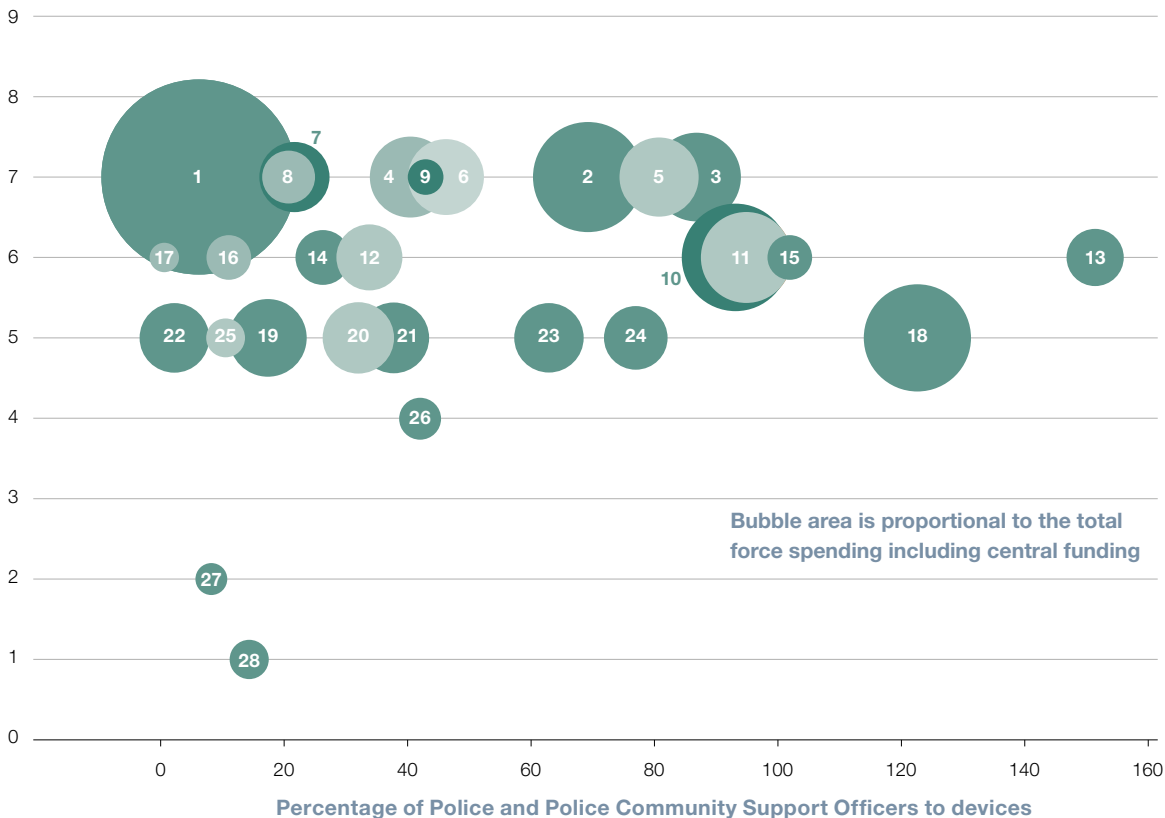
MobileID

3.16 The Agency completed the initial roll-out of MobileID devices in mid-2011 and only limited quantifiable results of the benefits of the devices are available. The Agency collects management information on a range of data pertinent to the device and its usage, including when and how frequently devices are used. This information is fed back to each force. Initial data shows a variation in how frequently devices are being used, on average, from zero to 18 searches per device per month.

3.17 Fifteen out of the 19 forces with MobileID, who responded to our survey, highlighted non-quantified benefits including time savings, from not having to arrest people who would have otherwise been detained. Some of the forces we spoke to that have not adopted the technology were unsure whether there was a clear requirement for investment, given that other mobile devices can access information to confirm identity.

Figure 11
Diversity of functionality, cost and number of mobile devices

Functionality as measured by National Audit Office survey



Bubble area is proportional to the total force spending including central funding

1 Metropolitan	8 Dyfed Powys	15 North Wales	22 Gloucestershire
2 West Yorkshire	9 Avon & Somerset	16 Greater Manchester	23 Lincolnshire
3 South Yorkshire	10 Hertfordshire	17 West Midlands	24 Thames Valley
4 Northamptonshire	11 Wiltshire	18 Staffordshire	25 Warwickshire
5 South Wales	12 British Transport Police	19 Surrey	26 City of London
6 Leicestershire	13 Bedfordshire	20 Merseyside	27 Sussex
7 Hampshire	14 Derbyshire	21 North Yorkshire	28 Durham

NOTES

- 1 Some forces, for example, Warwickshire, West Midlands and Gloucestershire are in the early phases of roll-out or are trialling technology and therefore currently have limited numbers of devices, spend and functionality.
- 2 Some forces have chosen to also deploy devices to civilian police staff and therefore have what appears to be a greater percentage of devices than officers and Police Community Support Officers.
- 3 Some forces have concentrated on developing other functions such as logging of lost property, over access to local databases, for example, Durham and Warwickshire.

Source: National Audit Office survey and Her Majesty's Inspectorate of Constabulary data

Mobile information

3.18 The Agency invested around £2.2 million to measure the programme benefits but this stopped in 2010. The Agency developed a benefits framework with a set of nine core metrics which it required each force to measure and report on quarterly. These metrics included: use of devices; cost reductions in services such as Airwave; and changes in police officer time spent out of the station. Many of the forces we spoke to said that while the Agency's support was constructive and gave useful information to manage their mobile projects, the core metrics were sometimes hard to measure and focused on some aspects police forces found less useful. The central benefits work stopped in mid-2010 when the Programme closed, however, further assessment of the increase in police officer visibility was carried out in 2011.

3.19 The Mobile Information Programme has met one of its objectives, to increase the public visibility of police officers, which the Board directed the Agency to concentrate on measuring in early 2010. Officers are spending more time out of the station because of using mobile devices although there is considerable variation across forces. Using Global Positioning System tracking devices and location reporting through the Airwave radio, the Agency measured time spent out of station by officers, with and without a mobile device.

3.20 In September 2010, the Agency reported that officers using mobile devices spend on average 30 minutes extra per shift out of the station than those without. However, this result had a wide margin of error (plus or minus 28 minutes), partly reflecting the number of officers sampled but also a significant variation by force. In a second assessment in late 2010, the Agency reported, based on the results of measurement across 11 forces, that the extra time out of station from using a mobile device is on average 18 minutes (plus or minus 11 minutes). The variation of additional officer time from using mobile devices is large. The Agency found results ranging from around 116 minutes per officer per shift out of station to around minus 109 minutes per officer per shift (meaning more time spent in station). The Agency does not explain why the use of mobile devices, in some forces, resulted in officers spending more time in the station. The majority (20) of the forces we surveyed agreed that mobile devices gave their officers some additional time out of station. For example, South Wales Police claim an approximate increase of 205,000 hours, which they equate to around £4.7 million. However, the forces we visited commented on the difficulties in both measuring and determining the impact of this additional time out of station.

3.21 There has been little central measurement by the Agency of the Mobile Information Programmes' objectives to reduce bureaucracy and improve the efficiency and effectiveness of the Police Service. Fifteen of the forces that responded to our survey claimed efficiency improvements, mostly in increased time out of station and reduced demand on control rooms. While the Programme did not explicitly set out to deliver cash savings this should have followed from objectives to reduce bureaucracy and increase efficiency. Forces we visited are finding it difficult to deliver clearly quantified benefits and cashable savings which are directly attributable to using mobile technology. Nonetheless most of the forces we visited and surveyed are seeking specific cost reductions from process improvement.

3.22 The majority of forces have yet to secure savings. Of the forces we surveyed, only ten claimed some form of cashable savings and these are relatively minor. For example:

- South Wales Police reported that they have reduced Airwave costs by £5,410 per year;
- West Yorkshire Police estimate annual savings of £121,000 from not having to print stop and search forms; and
- Wiltshire Police is reducing control room staffing levels because officers can update local crime recording systems using mobile devices, which is projected to result in an annual saving of £540,000.

Some forces are, however, predicting greater future savings, for example in reducing control room costs. Forces' ability to reduce the cost of back-room functions has partly been constrained by the proportion of officers equipped with devices as traditional manual processes need to be maintained.

Opportunities for ISIS

3.23 ISIS aims to save the Police Service £180 million annually from 2014-15 onwards. It is a reform programme for the Police Service founded upon the objective that police ICT will converge to a smaller number of common systems and nationally available services delivered through new commercial arrangements.

3.24 ISIS contains many of the key components that we would expect to find in government ICT services. The programmes and projects within the strategy have a strong emphasis on infrastructure and business systems. However, the Mobile Information Programme is not one of the projects included in the ISIS programme, as it has been closed by the Agency. Forces are responsible for the mobile devices and any future developments or replacement.

3.25 Opportunities to converge ICT and business processes through using mobile technology effectively, and learning from forces that use their mobile devices in different ways, are not being captured, shared or coordinated as part of ISIS. When compared with components set out in our landscape review⁷ experience with mobile technology suggests that there are opportunities to be developed (**Figure 12** overleaf).

⁷ Comptroller and Auditor General, *Information and Communications Technology in Government Landscape Review*, Session 2010-11, HC 757, National Audit Office, February 2011.

Figure 12
Opportunities for ISIS from mobile technology

Components of ICT services		Examples of current coverage	Opportunities presented by mobile technology
Policies and strategies		ISIS strategy document. Individuals force strategies for IT, ICT and force business plans.	Contribution to all six ISIS priority areas.
Operational uses	Online services	No projects identified.	Public can report crime online and allocated to officer via mobile devices. Public can contact officers online; officers can make an appointment or respond directly by phone, email or in person.
	Business intelligence systems	No projects identified.	Officer location and activity can be tracked and monitored using mobile devices to support deploying resources and measuring effectiveness and productivity.
	Business systems	Athena, command & control, fixed penalty notices, major incident service, national digital storage.	Integrating systems through single device, rationalising applications and processes e.g. camera enabling submitting digital photos as evidence, completing forms drawing information automatically from other databases.
	Back-office systems	Enterprise Resource Planning framework agreement.	Opportunities to rationalise or share back-office system through more electronic or remote working.
	Infrastructure	National email, network consolidation, migrating to Public Sector Network.	Mobile information, office applications, data centre consolidation, estate rationalisation.

Source: National Audit Office

3.26 The experience of implementing mobile technology reinforces the challenge of achieving convergence of ICT. The Mobile Information Programme set out to achieve greater convergence in terms of the technology used by forces. The ‘acceleration package’ aimed to provide the majority of forces with one of two systems while allowing local variation in how these systems were used. Had this convergence been achieved it may have more easily enabled future convergence of back-office systems at lower cost under ISIS.

3.27 The Board did not achieve the convergence sought for two reasons. Firstly because the common solution in the ‘acceleration package’ was not sufficiently developed, commercially or technically, at the point of investment. Some forces decided not to invest in the package because they had reconsidered their requirements. Others were dissuaded because some early forces had experienced technical difficulties with the package. Secondly, while collaborative funding applications were prioritised, resulting in six joint applications, few of the forces involved subsequently collaborated to procure and implement their mobile solutions.

3.28 The Department now mandates using central procurement for some standard ICT hardware and off-the-shelf software. The remainder of ISIS is based on forces engaging and implementing its aims voluntarily. However, it is unclear how forces will be convinced that they can be supported more effectively at reduced cost by using nationally available services and adopting common business processes.

3.29 The Emergency Services' Mobile Communication Programme – which is also not part of ISIS – aims to develop options to replace the current emergency services' radio system, known as 'Airwave'. It is not yet clear whether the Programme will try to bring together all types of mobile devices currently used by the emergency services.

Appendix One

Methodology

1 Review of key documents

To inform our understanding of the Mobile Information and MobileID Programmes, and forces' mobile data projects.

We reviewed documents produced by the Department, the Agency, police forces, and reports by other bodies, such as the Association of Chief Police Officers.

2 Interviews

To determine programme context, how programmes have been managed and developed and identify the information used to support decision-making and implementation.

We interviewed a number of stakeholders in the Department, the Agency, police forces, and other bodies, such as the Association of Chief Police Officers and Her Majesty's Inspectorate of Constabulary.

3 Survey of police forces

To examine forces' spending, the capability of their mobile solution, the degree of business process change undertaken and the impact of the mobile devices on their police officers.

We conducted the survey by emailing questionnaires to all police forces in England and Wales. We received 32 responses, an overall response rate of 73 per cent. Questionnaires were completed between 16 August and 26 October 2011. Twenty-three forces provided financial data of sufficient robustness to be included in our analysis.

4 Police force case studies

To provide a more detailed review of forces' mobile data projects with regard to their spending, capability, process change activity, benefits realisation work, strategy and future plans, and users' engagement.

We visited nine police forces: Derbyshire, Hampshire, Metropolitan, Staffordshire, South Wales, Surrey, Wiltshire, West Yorkshire and British Transport Police. We interviewed senior officers and police staff and conducted focus groups with mobile technology users including police officers and police community support officers.

5 Benchmarking

To explore how other private and public sector organisations manage their mobile technology. We did not look to benchmark actual performance with police forces.

We interviewed a number of mobile technology suppliers, as well as other private and public sector organisations using mobile data solutions.



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