

Electoral pilot scheme evaluation

Dover District Council

August 2007



Translations and other formats

For information on obtaining this publication in another language or in a large-print or Braille version please contact the Electoral Commission:

Tel: 020 7271 0500

Email: publications@electoralcommission.org.uk

We are an independent body set up by the UK Parliament. Our aim is integrity and public confidence in the democratic process. We regulate party and election finance and set standards for well-run elections.

Contents

	Summary	3
1	Introduction	4
2	Context	6
3	Pilot scheme description	7
4	Evaluation	11
	Efficiency	11
	Use of technology	12
	Voting	16
	Impact on counting	17
	Security and confidence	19
	Turnout	20
	Cost and value for money	21
5	Conclusions and findings	22

Summary

Dover District Council successfully conducted an electoral pilot that involved the electronic counting of ballot papers.

Conclusions and findings

The pilot scheme facilitated the counting of votes, rather than voting itself.

Electronic counting took approximately two hours less than a traditional count. The pilot scheme in this regard was a success, demonstrating efficiency, and there is potential to decrease the total time taken to count the votes compared with a manual count in the future.

Turnout of voters was no higher or lower than it would otherwise have been.

Turnout was 38.02%. Electronic counting is an administrative process with minimal impact on the voting process.

On the whole, voters found procedures easy to follow. The only change in voting procedure was that a voter did not fold their ballot paper when delivering their ballot paper into the ballot box at the polling station.

There is currently no evidence to suggest that the pilot scheme led to any increase in personation or other offences or malpractice. At present there is no evidence to suggest that the procedures provided by the scheme led to any increase in electoral offences, or in any other malpractice in connection with elections.

The use of electronic counting significantly increased the total cost of delivering the elections but did lead to a reduction in the number of staff required to conduct the count. The technical aspects of the electronic counting system cost £166,300, equating to £2.00 per elector, or £3.65 per ballot paper counted. These costs are relatively high compared with manual counting, Dover District Council estimates that a manual count would have incurred £13,000 staffing costs.

1 Introduction

1.1 Under the Representation of the People Act (RPA) 2000, any local authority in England and Wales can submit proposals to the Secretary of State for Justice (prior to 9 May 2007, the Secretary of State for Constitutional Affairs) to carry out an electoral pilot scheme. Electoral pilot schemes can involve changes to when, where and how voting at local government elections is to take place, how the votes cast at the elections are to be counted, or candidates sending election communications free of postage charges. The Electoral Commission has a statutory duty to evaluate and report on any pilot scheme approved by the Secretary of State.

1.2 A total of 312 local authorities in England held elections in May 2007. In October 2006, the Department for Constitutional Affairs¹ and the Commission issued a joint prospectus to local authorities inviting applications for electoral pilot schemes at the May 2007 elections. Fourteen applications were received in response to the prospectus, and in January 2007 the Secretary of State announced that he had approved 12 pilot schemes in a total of 13 local authorities. A full list of all the authorities that held pilot schemes in May 2007 is available on the Commission's website at www.electoralcommission.org.uk.

1.3 This report represents the Commission's statutory evaluation of the electoral pilot scheme in the elections to Dover District Council and associated parishes on 3 May 2007. The evaluation includes a description of the pilot scheme and an assessment as to:

- the scheme's success or otherwise in facilitating voting or the counting of votes, or in encouraging voting or enabling voters to make informed choices at the elections
- whether the turnout of voters was higher than it would have been if the scheme had not applied
- whether voters found the procedures provided for their assistance by the scheme easy to use
- whether the procedures provided for by the scheme led to any increase in personation or other electoral offences, or in any other malpractice in connection with elections
- whether those procedures led to any increase in expenditure, or to any savings, by the authority

1.4 In addition to these statutory requirements, the Commission's evaluation also considers, where appropriate:

- the extent to which the pilot scheme facilitated or otherwise encouraged participation among particular communities, including young people, people from minority ethnic communities and disabled people
- overall levels of user awareness and comprehension of the voting method being tested, including an assessment of the effectiveness of any literature or other materials used in the promotion of the pilot scheme

¹ Hereafter referred to as the Ministry of Justice following the machinery of government changes on 9 May 2007.

- the attitudes and opinions of key stakeholders, including voters, with a view to determining overall levels of confidence in the voting method being tested
- whether the pilot scheme resulted in measurable improvements, or had any adverse impact, with respect to the provision of more efficient and effective service delivery to voters
- whether the pilot scheme resulted in measurable improvements to, or had any adverse impact on, the existing system of electoral administration
- whether the pilot scheme represented good 'value for money'

1.5 Where appropriate, the Commission may also make recommendations as to whether the changes piloted should be extended to apply to electoral arrangements more generally.

1.6 The Commission is required to submit its evaluation report to the Secretary of State and the local authority involved in the pilot scheme, and the local authority is required to publish the evaluation report within three months of the elections. The Commission has also published this report on its website, together with a copy of the Statutory Order that allowed the pilot scheme to take place.

1.7 In preparing this report, the Commission has drawn on its own observations and assessment of the pilot scheme, as well as on the views expressed to it by a number of other stakeholders. The report incorporates findings from work undertaken by the following contractors:

- an evaluation of technical elements of the pilot by Ovum
- public opinion research carried out by ICM Research

1.8 Copies of the reports produced by the Commission's contractors are available from its website, and in other formats on request.

1.9 The Commission would particularly like to thank the Returning Officer, the Electoral Services department of Dover District Council and Opt2Vote for their assistance in this evaluation and for supplying it with the information and data to support this evaluation report.

2 Context

The area

2.1 The south-east coast local authority of Dover principally covers the towns of Dover, Deal and Sandwich, and many villages including Finglesham, Northbourne and Temple Ewell. Covering 31,500 hectares, it is the seventh largest of the Kent districts.

The Council

2.2 The Council changed from Labour control to a minority Conservative administration in 2003. Before the May 2007 elections, there were a total of 45 councillors: 22 Conservative, 17 Labour, three Liberal Democrats and three Independents.

2.3 The whole Council is elected every four years and the district comprises 21 district wards and 35 parishes (a number of which are warded).

2.4 The two Members of Parliament who represent electors in the local authority area are Gwyn Prosser (Dover, Labour) and Dr Stephen Ladyman (South Thanet, Labour).

3 Pilot scheme description

The pilot scheme application

3.1 In response to the October 2006 electoral pilot scheme prospectus, Dover District Council (hereafter known as 'the Council') submitted an application to pilot the electronic counting (e-counting) of ballot papers including the pre-scanning of postal ballot papers during the opening and verification of postal votes before the close of poll.

3.2 In a Written Ministerial Statement on 29 January 2007, the Secretary of State announced that the Government had given approval for the Council to pilot the e-counting of ballot papers but refused to allow the pre-scanning of postal ballot papers.²

3.3 Following the statutory consultation with the Commission on the proposals, the final Pilot Order, Dover District Council (Electronic Counting) Pilot Order 2007, was made on 15 March 2007 and came into force on the same day.³

Pilot scheme summary

3.4 The Council piloted the use of an e-counting system using commercially available scanners that recorded and counted ballot papers for both District Council and parish council elections (one large parish council election was counted manually due to the length of the ballot paper).

3.5 The main changes made to support the e-counting system were:

- Barcodes were used as a unique identifying mark on each ballot paper.
- The official mark (i.e. the security mark present on every ballot paper to validate it) was a two-dimensional (2D) barcode.⁴ This barcode was automatically checked and validated by the e-counting system.
- The words 'Do not fold' were printed on the back of ballot papers issued at the polling station.
- An electronic scanning system captured ballot paper images sufficient to enable all processes, from verification through to the final result, to be completed at one pass. It had the capability to interpret clear scanned ballot papers, while providing facilities for manual adjudication for any paper that was unclear.
- Projected displays were provided to give candidates information on the progress of their count and facilitate observation and adjudication.
- Council staff operated the scanners, as well as the registration, verification and adjudication terminals.

3.6 Although postal voting statements were scanned into a separate system prior to the count in order to fulfil the requirement for personal identifier verification, all

² Official Record (House of Lords), 29 January 2007, Column WS1.

³ The Commission's response to all Pilot Orders can be found on the Commission website at www.electoralcommission.org.uk/files/dms/AllResponses_25780-19142_E_N_S_W_.pdf

⁴ A 2D barcode is designed to store a large amount of information in a very small space.

postal ballots were subsequently entered into the e-counting system immediately following the close of poll in the period between polling stations closing and the ballot boxes arriving at the count centre. These processes are discussed in more detail in Chapter 4, 'Evaluation'. Further technical information is provided in a separate technical report produced for the Commission by Ovum.

Objectives of the pilot scheme

3.7 In its pilot scheme application, the Council stated that the proposed innovations aimed to:

- reduce the time taken to count votes for both District Council and parish council elections
- improve the accuracy of the count, particularly in relation to multi-member parish council elections

3.8 The Council also expected turnout to increase due to the increased publicity of the pilot scheme in the local and national media, although this was not specified as an objective of the pilot scheme.

3.9 In commenting on the pilot scheme applications, the Commission supported the view expressed in the electoral pilot scheme prospectus (October 2006) that further e-counting trials at English local government elections should investigate the feasibility of using standard commercial hardware for e-counting and establish whether such systems can provide a cost-effective alternative to manual counting at a local level.

3.10 However, the Commission expressed concern that the initial application did not provide sufficient evidence of learning objectives for the e-counting system proposed, due to the absence of information relating to the type of hardware the Council was planning to use.⁵ This issue was the subject of subsequent negotiations between the Council and the Ministry of Justice (MoJ) prior to the acceptance of the pilot.

3.11 The background paper attached to the approval provided by the Secretary of State noted the Government's view that e-counting pilot schemes would provide further evidence about the benefits of automation and investigate the use of standard commercial hardware.⁶

3.12 The following section outlines the key objectives of the pilot scheme, as they relate to the statutory evaluation criteria specified in Chapter 1, 'Introduction'.

Facilitating voting and ease of use

3.13 The voting experience on the part of the voter was to be relatively unchanged at these elections. All ballot papers were printed on either A4 or A3 paper and the voter was requested at the polling station not to fold their ballot paper when delivering their paper(s) into the ballot box.

⁵ Comments by the Commission on pilot scheme applications under Section 10, RPA 2000, December 2006, www.electoralcommission.org.uk/templates/search/document.cfm/17797

⁶ Official Record (House of Commons), 29 January 2007, Column 3WS.

Facilitating the counting of votes

3.14 The principal benefit and key objective of using e-counting technology was to achieve improvements in the speed at which the count could be completed compared with the speed of previous manual counts. Resulting from the increased speed, another objective was for ballots for the District Council and parish council elections to be counted at the same time whereas previously the District Council contests were counted on Thursday night with the parish council contests counted separately the following morning.

3.15 Furthermore, the counting of votes at combined local government elections with multi-seat wards⁷ is complex and can be prone to human error. The use of technology was expected to facilitate greater accuracy in the counting of ballot papers in wards or parishes where more than one vacancy was to be filled.

3.16 The increased speed of an e-count was also expected to be welcomed by candidates and agents. In the pilot application, the Council submitted that administrators have often had complaints that candidates and agents arrive at the count and have to wait several hours before their particular count is commenced.

3.17 The success criteria for these objectives were for the e-count to be completed faster than a comparable manual count and for the ballots for the District Council and parish council counts to be successfully completed together.

Turnout

3.18 Although not specified as an objective measure of the success of the pilot scheme, the Council submitted in its application that the additional publicity of the Council's involvement in the pilot schemes conducted in 2007 had the potential to raise awareness of the elections among the general public and thus increase turnout.

3.19 However, turnout is affected by many factors and it is difficult to attribute any increase or decrease in turnout to a single factor, particularly given the configuration of the current Council – close contests have often been shown to be predictors for higher than average turnouts.

3.20 The Commission believes that for these reasons it is not possible to evaluate the impact of the e-counting system on turnout effectively. It will therefore not consider turnout issues when considering whether or not the pilot scheme met its objectives.

⁷ Dover held an all-out election with most district wards electing three members; parishes varied in size from electing one candidate up to 12 candidates. Out of the 16 contested parish council elections on 3 May 2007, the average number of candidates elected was six.

Security and confidence

3.21 In previous pilots of e-counting, concern has been raised by candidates and agents about the transparency of the process. The pilot scheme aimed to raise stakeholder confidence in e-counting through the increased provision of information before and during the counting process.

3.22 The success criterion for this aspect of the pilot scheme was therefore whether the extra provision of information increased stakeholders' perception of the transparency of the process.

Efficiency

3.23 It was anticipated that the use of an e-counting system would reduce the resources required and the associated costs of a manual count, most notably in the number of staff required to assist the Returning Officer at the count.

3.24 The success criterion for this objective was therefore whether any of these savings were realised in practice.

3.25 For this pilot, the majority of the costs were met by the MoJ. However, there is also a need to consider the impact of managing pilot scheme processes on the time required by the Returning Officer and his staff to manage and administer the remainder of the elections.

4 Evaluation

Efficiency

Project management

4.1 Overall management responsibility for the elections was undertaken by the Democratic Services Manager at the Council who was supported by an experienced Electoral Services Officer.

4.2 However, the Council needed a partner to deliver the e-counting system and provide technical expertise. To deliver technical solutions for pilot schemes in England and Wales, the MoJ established, following a procurement exercise, an approved list of suitable suppliers to support pilots that utilised electronic services.

4.3 One of the key risks to the successful delivery of the pilot was the time allotted to its implementation. Once the pilot scheme had been approved by the Secretary of State on 29 January 2007, and the Council had selected Opt2Vote from the framework of MoJ-approved suppliers, less than three months remained until the elections on 3 May 2007.

4.4 Communication was good between all parties, helped by weekly project meetings and monthly board meetings principally with the Democratic Services Manager, Electoral Services Officer and the Project Manager from Opt2Vote. These meetings enabled problematic issues to be identified and the course of action required to rectify such difficulties to be determined. Minutes of the Project Board meetings were provided and kept, action points made and acted upon. The Commission attended some Project Board meetings in an observational capacity.

4.5 Risk and contingency management was observed to be extremely robust and effective. The risk register and issues list, maintained by both the Council and Opt2Vote in the run-up to the elections, were regularly consulted, acted upon and updated.

4.6 Notwithstanding the extremely tight timescales, the performance of both the Council and Opt2Vote was effective. Throughout the pilot, from planning to delivery, the Democratic Services Manager was fully supported by Opt2Vote personnel before, during and after the count. Opt2Vote was retained in an advisory capacity and all major decisions were taken by the Council. Both the Council and Opt2Vote used PRINCE2 management methodologies to deliver the pilot.

4.7 In particular, the Council's performance was enhanced by:

- good leadership augmented by the Democratic Services Manager's previous experience with Opt2Vote
- a clear division of responsibilities between the Council and supplier, agreed to early on in the process

- a strong and capable Electoral Services team
- comprehensive up-to-date project documentation

Training

4.8 Opt2Vote took responsibility for the training of Council staff on the e-counting system. The training was undertaken at the count venue well in advance of the elections – on 29 March 2007 – and included a presentation of the different steps from registration to adjudication (supported by appropriate documentation), followed by demonstration and hands-on operation by the staff. Information as to what to do in the event of error, such as a paper jam, was also demonstrated by Opt2Vote staff.

4.9 The training session was supplemented with well-written documentation, including guides to batch registration, scanning, batch verification, ballot adjudication and the count as a whole. The documents were written in a straightforward, clear, succinct manner. Council staff were able to take the documentation away for further reading between the training session and the count.

4.10 During training, staff were allocated specific roles, such as registration operator, scanner operator, verification operator, first level adjudicator and Returning Officer/Deputy Returning Officer adjudicator, and were specifically trained in these areas. A refresher training session was also provided on the day before the elections, and staff found it fairly easy to familiarise themselves with the equipment again and welcomed the chance to reacquaint themselves with the new processes.

Supplier management

4.11 The key supplier relationship for the Council was with Opt2Vote, which was responsible for the delivery and operation of the technical solution and for printing the ballot papers. Opt2Vote has previous involvement in pilot schemes at English local government elections, as well as experience of UK elections generally. It provides solutions for local authorities for the management of various aspects of the electoral process.

4.12 In addition to its role in providing the technical solution to count the ballot papers electronically, Opt2Vote provided training to Council staff on how to use the e-counting system.

4.13 There was a professional working relationship between the Democratic Services Manager and the Project Manager from Opt2Vote.

Use of technology

4.14 This section of the report briefly describes the technology used to deliver the e-counting pilot scheme and the testing, quality assurance and training undertaken to support the pilot. A more detailed discussion of the technical issues may be found in the separate report provided by the Commission's technical contractors.

4.15 The e-counting system consisted of a number of separate software applications that roughly corresponded to the processes involved in a manual count. These included a module for the registration of ballot boxes, a scanning module, a verification module, two adjudication modules and a counting module.

4.16 The process for the scanning and counting of ballot papers which was agreed by the Returning Officer and Opt2Vote is detailed below. This information was communicated to candidates prior to the count.

4.17 The agreed process from the arrival of ballot papers (both postal and those delivered from a polling station) is described below in the section 'Proposed process'. The extent to which the agreed process was followed on the night is described in the section 'Impact on counting'.

Proposed process

4.18 Postal ballot papers returned to the Returning Officer before polling day were to be transported to the count venue before the count, ready to be processed immediately following the close of poll. The Returning Officer would collect postal ballot papers delivered to polling stations throughout polling day so that they could be verified in line with the requirements for confirming the validity of postal votes before the count commenced.

4.19 Ballot boxes used at polling stations were to be sealed and delivered to the count centre in the usual way. Upon arrival at the count, the boxes would be opened and Council staff would be employed to tidy papers up – e.g. by unfolding any folded ones and separating district from parish papers. The contents of each box were to be kept together at this point.

4.20 A control sheet for the contents of each ballot box or batch would be produced which detailed the total number of ballot papers. In essence, each batch represented all the ballot papers received at a polling station ready for inputting to the registration system. The control sheet should therefore match the number of ballot papers issued by the Presiding Officer and recorded on the ballot paper account. The number of unused ballot papers would be checked as an additional validation of the total number of ballot papers in the ballot box. Postal ballots received before the close of poll were to be designated as a batch as if they had been received at a polling station. Postal ballot papers returned by the Presiding Officer were to be designated as a separate batch.

4.21 Operators would log on to personal computers (PCs) provided at the count centre entering their username and password. The Returning Officer, Deputy Returning Officer and Opt2Vote Project Manager would be the only users with the ability to access the Returning Officer adjudication and count modules in the system.

4.22 Before the electronic system was used, a 'zero' report was to be printed and signed by the Returning Officer to ensure that all candidates were assigned no votes prior to the system being used.

Registration

4.23 Using the information from the control sheets, batches were to be registered on the system to facilitate a later check to ensure that the number of ballot papers counted by the system matched the number expected.

Scanning

4.24 Nine scanners were to be used, each taking a maximum size of A3 paper, with duplex scan heads (i.e. they could read papers upside down and back to front).

4.25 Batches of ballot papers were to be delivered to scanner operators to scan, and once scanned they were to inform Opt2Vote's Project Manager (or his assistant) that the batch had been scanned. Immediately after the ballot papers had been scanned, the software would then log the total number of ballots scanned with the system and interpret (i.e. effectively read) the ballot papers. If the ballot paper could not be interpreted or there was some doubt over it, the ballot paper would be sent for first level adjudication by the Returning Officer's staff.

4.26 In multi-member elections, the system would be set up to accept under-voted ballot papers, i.e. ballot papers with fewer votes recorded than the voter was entitled to use. At this point, the system would also display ballot papers where the barcode was unable to be read by the system, either because of damage or other scanning difficulties; the barcode could then be manually entered by the scanner operator.

Verification

4.27 Batches of ballot papers were then to be verified by the system before the adjudication process could start on the relevant ward. Verification was to be automatic – the system would compare and display the number of successfully scanned ballot papers with the numbers entered at registration for each polling station, together with the numbers of postal votes in that ward or parish.

4.28 If there was no significant discrepancy between the figures (the allowable level set by the Returning Officer was one for parishes and zero for wards), the batch would then be treated as verified, and the control sheet would be signed by the Returning Officer. Where there was a discrepancy, the sheet would not be signed. Further investigation would be carried out by counting the total number of ballot papers using a standalone scanner without reprocessing the batch.

Standard adjudication queue

4.29 Once a batch had been verified, the ballot papers that had been flagged for adjudication would be sent to the standard adjudication queue. This was carried out by operators who were junior Electoral Services staff. On-screen graphic representations of the ballot paper requiring adjudication would be displayed along with a provisional allocation of the vote to a candidate, produced automatically by the system. Operators would then either confirm the provisional allocation as valid or amend it and accept the ballot paper. Alternatively, if the intention of the voter was not clear, or there was any question as to the validity of the ballot paper, it would be referred to the Returning Officer for a separate higher level adjudication.

Returning Officer adjudication queue

4.30 Any doubtful ballot papers would be passed to the Returning Officer. The adjudication of these ballots would either be carried out by the Returning Officer himself or his nominated representative. In this case, the Deputy Returning Officer was assigned to carry out the adjudication process, which would be an on-screen process, as before. The Deputy Returning Officer would then record her decision by entering it into the system. The ballot paper in question would be displayed by projecting it onto a large screen, enabling candidates, agents and counting agents to object to the Returning Officer's determination on a particular ballot paper.

4.31 Ballot papers could be rejected by selecting from a drop-down list that corresponds to one of the following statutory reasons for rejecting a ballot paper:

- A – want of an official mark
- B – voting for more candidates than vacancies
- C – writing or mark by which voter can be identified
- D – unmarked or void for certainty
- E – partially rejected⁸

Calculating the result

4.32 After all these stages had been completed, the Returning Officer would then count the votes using the e-counting system by using a separate software application to register the number of votes cast for each candidate. If a recount was requested and agreed to by the Returning Officer, most of the process would be repeated. However, any doubtful ballot papers previously adjudicated by the Returning Officer would not be reconsidered. The system saves all previous adjudications; therefore, only ballot papers that did not require adjudication in the original count (e.g. if the ballot paper had deteriorated in quality following the initial scan) would be considered.

4.33 Following consultation with the candidates and agents in the usual way, the Returning Officer would then print the official declaration of the results in the correct format directly from the e-counting system and declare the results to those assembled.

4.34 After all the results were declared, the Returning Officer would receive all the information used to count the votes on a removable storage device for safekeeping at the Council. The whole system would then be wiped clean in the presence of the Returning Officer to ensure that all sensitive information was destroyed.

Testing

4.35 The testing observed by the Commission's technical contractor was seen to be rigorous and conscientiously undertaken. The proposed process and the use of e-counting technology was witnessed on a number of occasions, including full-scale testing and training on 29 March 2007, a demonstration of systems to the MoJ's

⁸ A ballot paper can only be rejected in part in multi-member wards where there are both valid votes and invalid votes on the same ballot paper.

quality assurance auditor and a user acceptance test on 23 April 2007, and a final test and run through on 2 May 2007 prior to the count.

4.36 At the testing and training session on 29 March 2007, Opt2Vote used 10,000 ballot papers that were marked up by the supplier. Opt2Vote hired the retired Chief Electoral Officer of Northern Ireland to count these ballots manually as a check on the electronic result. In addition, a substantial number of ballot papers – 2,000 District Council ballot papers and 2,000 parish council ballot papers – were marked up by the Council, with doubtful ballot papers being marked by the MoJ representative. At the end of the test, the results matched the electronic outcome.

Ballot papers

4.37 Opt2Vote took responsibility at the outset of the pilot for printing the ballot papers. The Council did not experience the type of print delays that affected other pilots and non-pilot local authorities at the May 2007 elections. However, due to capacity issues, Opt2Vote decided that the ballot papers would be printed in two tranches, with the postal ballot papers being printed first and polling station ballot papers being printed closer to the elections. This enabled the postal ballot packs to be delivered in good time. During the count, it became clear that the precise alignment of the boxes where votes could be marked was different on the two sets of ballot papers, which had repercussions at the count.

4.38 There were some problems with the print quality of some of the ballot papers, which also had implications at the count. These included incomplete boxes on the right-hand side of the ballot paper which led to a larger number of adjudications at the count than would otherwise have been necessary.

4.39 To facilitate the e-counting system, the back of the ballot paper contained a barcode which contained details of the contest and the ballot paper number. The barcode enabled the system to reject duplicate ballot papers and record adjudication decisions in the case of any recount. The back of the ballot paper also included the words 'Do not fold' for votes delivered at a polling station. At polling stations, ballot boxes were turned on their sides to enable voters to insert their ballot papers into the ballot box without folding the ballot paper.

4.40 The security mark (serving as the official mark) on the front of the ballot paper was a dot matrix 2D barcode, which was checked by the e-counting system to ensure the validity of the ballot paper. Ballot papers were printed using the usual specifications and only varied in length and breadth depending on the number of candidates contesting the relevant election. District Council ballot papers were printed on white paper, whereas parish council ballot papers were printed on yellow paper. However, in some wards there were discrepancies in the sizes of text and the layout of the ballot papers, which also caused some problems at the count.

Voting

4.41 The principal effect of the pilot scheme as far as voters were concerned was that they were requested not to fold their ballot papers when placing them in the ballot box. This was to facilitate scanning at the count. There was some evidence,

based on discussions with some voters and Presiding Officers, that not folding the ballot paper had implications for the secrecy of the ballot due to unfolded and completed ballot papers being visible to agents and others situated inside the polling station.

4.42 In areas where District Council elections were combined with parish council elections, voters were asked to place their ballot papers in separate ballot boxes – one for the district and one for the parish.

4.43 Other than the minor changes to the ballot paper to facilitate e-counting, postal voters in Dover did not experience any differences to the process from other postal voters around the country.

Impact on counting

4.44 The first declaration was made at 12.46am, with the last parish being declared just after 4am – six hours after the close of poll. The Council expected, based on the performance of previous testing sessions, that the whole process would be completed by around 2am taking a total of four hours to complete both District Council and parish council contests. The Council suggested in an evaluation meeting with the Commission that a manual count for both the District Council and parish council elections would take in excess of seven hours. The count process, on the whole, was well planned and executed.

4.45 Opt2Vote staff supported the Returning Officer in the delivery of the electronic aspects of the count. The Opt2Vote Project Manager was responsible for the overall workflow at the count. Council staff respected the Project Manager's leadership in this role, and referred questions to him, which he would subsequently escalate to the Returning Officer or Deputy Returning Officer as required. Two other Opt2Vote staff were involved in the process – one taking charge of technical support, and the other assisting the Project Manager with workflow and general queries.

4.46 Prior to the count, it was planned that each user of the system would have a pre-defined secure password to log on to the system, and that the system would lock certain privileges in line with each role defined in the system. In the event, it was decided to allow operators to use their first names and select their own passwords, assigning them to their specific roles; there was no governance over the form of these passwords.

4.47 One parish contest (Eythone parish) was manually counted using the 'grass skirt'⁹ method of counting due to the size of the ballot paper. Although the scanners were capable of scanning A3 papers, this large size of ballot paper had not previously been tested. As the system was unproven for this type of ballot paper, the Council decided that this parish should be manually counted to avoid unforeseen and untested risks.

⁹ The 'grass skirt' system of counting votes is used by some local authorities in counting multi-member wards. The system involves layering ballot papers on top of one another and lining up the voting areas of the ballots so that only the voting marks can be seen. This forms a 'grass skirt' effect and allows the votes to be counted easily and quickly by totalling along the length of the laid-out ballot papers.

4.48 There was plenty of room in the count hall itself as a result of the decision to open ballot boxes in the adjoining room. The box openers were employed to tidy papers as far as possible, unfold any folded ones, and separate any district or parish papers that had found their way into the wrong ballot box. However, due to the number of ballot boxes arriving at the count at the same time, some unopened ballot boxes were stored in a public area because there was not enough space in the area set aside for this function. A Police Officer in attendance at the count guarded these ballot boxes.

4.49 On the whole, the workflow was considered satisfactory and effective on the night. However, scanner operators were often seen sitting, waiting for a batch to be delivered for scanning. This part of the process was quicker than other elements such as box opening and adjudication, leading to substantial lag periods.

4.50 There was also a larger than expected number of postal votes brought to the count by Presiding Officers, having been handed into polling stations during the day. This led to delays in some wards while the necessary processing took place. Had Presiding Officers informed the Returning Officer of the numbers of postal ballot papers delivered to their polling station and ready for collection – as had been agreed – the process could have been better managed and these delays may have been avoided.

4.51 The scanners were set up as specified for the pilot to accept only crosses as valid votes. This, together with the problems with the ballot paper printing (described in paragraph 4.37), led to a total of 17.3% of the ballots scanned being sent for first level adjudication. Although the print quality of the ballot papers was the primary cause of bottlenecks, there were also a large number of ticks (instead of crosses) seen passing through to adjudication. During the implementation of the pilot scheme, the Democratic Services Manager requested that all marks other than a cross should be sent for adjudication to increase transparency.

4.52 As a result, scanning staff were redeployed to assist with the large numbers of first level adjudications. Senior Council staff dedicated to adjudication did this alone while other staff who had been redeployed from scanning did this in pairs. There were some uncertainties about process by the redeployed scanning staff due to unfamiliarity, but after a short while the operators appeared to settle into the new process.

4.53 The system allowed all adjudication staff to reject votes at the standard adjudication stage. Although the user manual given to all staff clearly stated that at this stage ballot papers must either be accepted as valid or sent to the Returning Officer for final adjudication (i.e. none should be rejected), some staff were seen to reject votes. This meant that some ballot papers were rejected without final adjudication by the Returning Officer. In the main this was limited to a small number of blank ballot papers – those that carried no marks at all. However, on becoming aware of this, the Deputy Returning Officer stepped in and instructed her staff to send all rejected ballot papers to the Returning Officer.

Adjudication

4.54 The Returning Officer adjudication worked well, with the ballot papers being projected onto a large screen for the benefit of candidates and agents. However, it was suggested by some observers that the process was too quick, with adjudication decisions being made and the next doubtful paper being displayed before they could respond to the first one (see 'Stakeholder confidence' below for further details).

4.55 At one point, there was a software error that prevented the adjudicator from selecting a reason for rejection and continuing with the next ballot. This was addressed by closing and restarting the software application. It later transpired that this ballot paper was accepted by the system as provisionally allocated by the software; it was therefore not rejected as originally intended.

4.56 Some 1.4% of ballot papers were sent for Returning Officer adjudication, and this part of the process was therefore relatively quick. Of these, 96% were rejected by the Returning Officer. No agent, candidate or counting agent objected to a rejected ballot paper.

4.57 The progress display screen was intended to display the results of a particular ward by candidate in the form of a bar chart to mimic the piles of ballot papers that can be seen at a manual count. Results for all wards in process were meant to be displayed in this manner on a rolling basis after 75% of the total votes for a ward or parish had been completed. However, the screen started displaying information based only on the batches registered to a ward (which at the beginning of the count were valid returned postal votes), and not the total number of ballot papers expected to be counted for that ward or parish. Rather than reveal information that would not normally be available to candidates and agents, the Returning Officer decided to stop displaying the progress information and discontinued the use of these progress screens for the remainder of the count.

Security and confidence

Security

4.58 The Commission has not been made aware of any allegations of fraud or malpractice arising from the pilot scheme at these elections. At present, therefore, there is no substantiated evidence to suggest that the procedures provided by the pilot scheme led to any increase in electoral offences, or in any other malpractice in connection with elections. The Commission notes that the period in which a prosecution can be launched is one year, and so such evidence may still come to light.

4.59 There were, however, elements of the pilot scheme which had an impact on security. Access to the PCs that controlled registration, adjudication and verification of batches of ballot papers was protected by a username and password. Each defined role had no access to other areas of the system; for example, scanner operators were unable to use their username and password to access adjudication and count facilities.

4.60 Equipment in the hall was set up in a single network, which could not be accessed externally.

4.61 Each ballot paper had a security mark (serving as the official mark) in the form of a 2D barcode on the front of the ballot paper which was verified before it was able to be counted.

Stakeholder confidence

4.62 The Commission appointed ICM Research to collect data about the pilot by conducting telephone interviews with candidates and agents. No quantitative research was undertaken with members of the electorate or specifically with voters in this local authority area, as the electorate would have known little of the e-counting process.

4.63 Candidates' and agents' main concerns about the introduction of e-counting hinged on efficiency and cost savings considerations. The perception was that the e-count process would be completed more quickly than a manual count. This in itself was thought to have associated cost savings.

4.64 Feedback from a number of candidates and agents contacted by the Commission's evaluator at the count and through correspondence after the event confirmed confidence in the system, but expressed some concern over the count process.

4.65 One concern was that candidates found it difficult to follow their own ward progress. While the physical visibility of the ballot papers going through the scanners was seen as a positive, several candidates would have welcomed information that a particular ward was being counted on a particular scanner so that they could view the progress of their own count and be able to make an informed decision about the validity of the provisional result when presented with it by the Returning Officer.

4.66 Another concern was that the Returning Officer adjudication process went too quickly for candidates to have enough time to make a judgement on any objection. They did not consider that they had equivalent oversight of the adjudications process as they would have had at a manual count. Some candidates and agents felt that their right to object to the Returning Officer's decision on a ballot paper was effectively nullified by the speed at which the adjudications were processed.

4.67 The Council also provided candidates with a declared results screen in the adjoining room, which was operated by Council staff. The results had to be entered into the PowerPoint presentation by hand using the official declaration of result for each ward.

Turnout

4.68 Turnout was up from 32.92% in the May 2003 local government elections to 38.02%, an increase of five percentage points.

4.69 Turnout is affected by many factors and it is difficult to attribute any increase or decrease to a single factor. The contest in Dover was a close one; it was possible for the position to change from no overall control to a Conservative majority with a swing of only five seats. There were also other motivations that might have encouraged voters to turn out. In that context it would be difficult to claim that the increased publicity of the pilot scheme had a statistically significant impact on turnout.

4.70 The Commission cannot therefore suggest that the pilot scheme led to an increase in turnout due to the multitude of other contributory factors that may have affected turnout. However, the pilot did attract increased media coverage both in newspapers and on the radio.

Cost and value for money

4.71 The technical areas of the e-counting system cost £166,300 according to the contract signed between the Council and Opt2Vote, equating to £2.00 per elector or £3.65 per ballot paper counted.

4.72 These costs are relatively high compared with manual counting; the Council estimates that a manual count would have cost £13,000 to staff. There is scope for some limited cost-saving measures, such as purchasing the scanners rather than leasing them for the purposes of using an e-counting system. The scanners could be used for other related electoral purposes, such as the annual canvas. Nonetheless, it is important to note that, even if this were the case, the scanners would only be needed for one month over an electoral period. Dover elects its Council once every four years. Apart from any elections for casual vacancies therefore, the Council would only use the scanners for a few months over a four-year period.

4.73 In terms of staffing, a significant reduction for any future elections is unlikely, although there is scope for reducing the number of scanners from nine to six in order to eliminate downtime for staff on scanning duties, or making the count shorter to limit staffing costs. There were a total of 14 people undertaking scanning, registration and verification duties in addition to the Returning Officer, Deputy Returning Officer and Electoral Services Officer. There were three Count Supervisors checking boxes against ballot accounts, controlling the flow of boxes into the hall. There were 19 Count Assistants who were flattening ballot papers and preparing them for scanning. Some of these Count Assistants were undertaking the manual count of the one parish using the 'grass skirt' method. There were an additional four people tidying ballot boxes and bringing them into the count hall. However, in general, there was a large amount of multitasking taking place so it was difficult to be precise about the numbers assigned for each role. For a manual count, the Council estimated that there would have been at least 90 individuals involved in opening and counting, with eight to 10 Count Supervisors.

5 Conclusions and findings

Statutory criteria

5.1 In terms of the five statutory evaluation criteria, the Commission's conclusions in relation to the electoral pilot scheme in Dover are as follows.

5.2 **The pilot scheme facilitated the counting of votes, rather than voting itself.** Although the e-count itself took longer than anticipated by approximately two hours, this was still estimated to be shorter than a manual count would have been by around two hours. The pilot scheme in this regard was a success, demonstrating efficiency, and following the resolution of problems highlighted in this report, there is potential to decrease the total time taken to count the votes compared with a manual count in the future.

5.3 The pilot scheme had no discernible effect on the ease of voting and the majority of voters adhered to the instructions not to fold the paper; however, some concerns were expressed by voters that not folding the ballot paper at the polling station exposed their voting preferences.

5.4 The Council was also successful in counting ballots for both District Council and parish council elections at the same time, whereas in a manual count they would have been completed separately with the District Council ballots being counted on Thursday night and the parish council ballots on Friday morning.

5.5 **Turnout of voters was no higher or lower than it would otherwise have been.** Turnout is affected by many factors and it is difficult to attribute any increase or decrease to a single factor. The Commission is unable to conclude whether or not the increased publicity of the pilot scheme had any discernible impact on turnout.

5.6 **On the whole, voters found procedures easy to follow.** The only change in voting procedure related to voting in person at a polling station. Voters were required not to fold their ballot paper when placing it in the ballot box. While there was some anecdotal evidence that not folding the ballot paper had implications for the secrecy of the ballot, the voting procedure was not adversely affected.

5.7 **There is currently no evidence to suggest that the pilot scheme led to any increase in personation or other offences or malpractice.** At present there is no evidence to suggest that the procedures provided by the scheme led to any increase in electoral offences, or in any other malpractice in connection with elections.

5.8 **The use of e-counting substantially increased the total cost of delivering the elections but did lead to a reduction in the number of staff required to conduct the count.** The cost of the e-counting system was £166,300 which is considerably more expensive than a comparable manual count. However, the number of staff needed at the count was half as many needed in a manual count.

Learning

5.9 The Commission's evaluation of this pilot scheme has identified the following key learning points insofar as they relate to the e-counting system and count processes used in Dover:

- Familiarity and efficiency of staff when using the equipment is integral to the success of e-counting.
- The importance of thorough and up-to-date documentation for all staff so that they can be fully prepared for the rigours of election night.
- The necessity of extensively testing all equipment, including progress display equipment, prior to the event.
- The importance of contingency planning at the count; for example, if there is a larger than expected number of ballot papers for adjudication, resources should be reassigned to reduce the potential bottleneck. Although the Council coped well with this on the night, a broader programme of training in cross-functional roles would have helped the process to run more smoothly.
- The requirement for ballot papers not to be folded at a polling station should be reviewed due to the success of the scanning of postal ballot papers. Where there were problems with postal ballot papers it was not the fold that was causing the problems.
- Consideration needs to be given to the needs of candidates, agents and counting agents in understanding the progress of their specific count.
- Further thought is needed on how the e-counting process can replicate a similar level of transparency to a manual count.
- Consideration needs to be given to the process of adjudicating doubtful ballots; the candidates, agents and counting agents should lose no rights in this regard.
- Candidates and agents should be more involved with the process and, if e-counting is piloted further, should be able to witness the zeroing of the system and the deletion of sensitive data, if they so wish.

Issues

5.10 The following issues will need to be considered further in relation to any future pilot schemes or wider implementation of the processes trialled by the Council:

- The problems of misaligned postal ballot papers compared with their polling station counterparts should be investigated further either by addressing quality assurance standards in the printing process or developing a more flexible solution in the e-counting system.
- No ballot papers should be able to be rejected at the first level adjudication stage.
- The Returning Officer should be able to determine valid marks submitted by the voter other than a cross; for example, many voters indicated their preference with a tick, which was sent to first level adjudication.

5.11 Further recommendations can be found in the technical report by the Commission's contractors.