

e-Counting delivers UK's most complex election in 2004



When the Government announced that the elections for the London Mayor and Assembly would be combined with the European elections on June 10th 2004, e-Counting was the only viable option because of the sheer size and complexity of the count.

The project was the most complicated and largest single electoral event ever held in the UK. Around 12 million ballot papers of three different types needed to be produced which used four different electoral systems. 5.2 million voters across London had their chance to cast up to five votes in approximately 4,200 polling stations throughout the Capital. Counting of the votes was carried out in 14 count sites across Greater London.



Complex Count

The ballot paper to elect a London Mayor allowed voters to cast two votes, a first and second choice, which was calculated using the supplementary voting system. The ballot paper for the London Assembly allowed two votes, one for the Constituency member and one for the London wide member. Finally the European Parliamentary ballot paper allowed voters to cast a single vote, calculated using the regional list system. All three papers were colour coded to match the ballot boxes in the polling stations - aiding the voter to correctly cast their votes.

When it came to choosing an e-Counting supplier to manage the complex count, the Elections Steering Group recommended DRS as the most experienced company and best placed to manage the entire project. With its own technology, designed and manufactured in-house, fully equipped print plant where it was able to produce the ballot papers required, and skilled and experienced project management teams, the Greater London Authority (GLA) recognised the breadth and capability that DRS was able to demonstrate and the team was brought on board.

Research, Planning & Preparation

With the contract awarded one year before the project, the DRS project management team began intensive planning for the implementation of the e-Counting solution for the GLA. From developing the application software and designing and printing the ballot papers, right through to manufacturing the 300 e-Counting scanners required to process the ballot papers. Fourteen counting centres were identified, one for each local constituency and DRS ensured full on-site technical support was provided at every location, as well as the provision of a sophisticated central calculation facility where results were received and consolidated.

Extensive preparation for a comprehensive training programme for the 1,500 strong team of Local Authority and DRS staff on the e-Counting technology was provided at DRS' HQ in Milton Keynes, in GLA City Hall London and across lead London Boroughs. With a 12 month lead time, planning was paramount and a partnership between DRS, the GLA and London Elects, the independent organisation set up to plan and manage the elections, quickly developed.

London Boroughs:	32
Electorate:	5,197,647
Polling Stations:	4,200
Ballot papers printed:	12,000,000
Local Authority/ DRS staff:	1,500
Number of count sites:	14
Scanners used:	300
Papers counted:	5,761,599
Votes cast:	9,602,665
Turnout:	37%



Capturing election data quickly and securely

Unique PhotoScribe® technology

At the core of the project was DRS leading edge PhotoScribe® technology. Designed to utilise unique Imaging and Optical Mark Recognition capabilities using sophisticated scanning capabilities, it is ideally used in complex data capture projects. The technology works by scanning completed ballot papers regardless of the orientation of the paper through the e-Counting scanners, which not only records every single clear vote cast, but also captures complete images of ballot papers where there is any doubt as to the voters' intent, such as too many votes cast or marks made outside the legal voting area.

Images of doubtful ballots are then sent for on-screen adjudication by the Returning Officers' staff – exactly as in a manual count, but without the usual cumbersome paper flow. In these elections, the 300 PhotoScribe® scanners were operated by trained scanner operators in each count centre, freeing up essential Local Authority resource.

“The technology worked excellently and we were able to count almost six million ballot papers under four different electoral systems within hours, rather than days if they were counted manually”.

Official spokesperson- London Elects

Security of the count was paramount and the e-Counting software carried out multiple security checks on every single ballot paper during the scanning process to guarantee each paper was only ever counted once. Each individual ballot paper carried a number of security marks including unique barcodes which served as the official mark, identified which contest the papers belonged to and ensured counterfeit papers were not able to enter into the count. In total over 12 million ballot papers were printed by DRS and distributed to 32 London Boroughs and the City of London, to put this into perspective, if the papers were stacked on top of each other they would have reached four and a half times the height of the Canary Wharf tower!

Results delivered in record time

The GLA and London Elects made the decision to count the votes the day after the elections on June 11th. The opening and registration of ballot boxes commenced at 08:30, with scanning starting half an hour later. Results were collated in record time and stored at each constituency centre before being encrypted for transmission to the central calculation site at GLA City Hall for aggregation and consolidation.

With a higher than expected turnout at an average of 37%, Local Constituency results were coming in by mid afternoon and the result for the Mayor was available just 9 hours from when scanning started. After the Greater London Returning Officer announced that Ken Livingston was re-elected Mayor of London, the Mayor thanked the staff involved in the election for successfully completing such a complex count.



e-Counting technology is extremely accurate and when used in a complex count, is much faster than other methods, maintaining a complete audit trail, and dramatically reducing the manual processes and risk of human error. It is a tried and tested solution and DRS e-Counting has been used in elections and electoral registration projects for many years around the world in the UK, Hong Kong, Ghana, Kenya, Norway, Bosnia, Mali, Tanzania and Oman.

It is clear that the future of the voting process is still in development and following pilot objectives set out by the Electoral Commission to make the administration of elections more straightforward and effective, DRS remains at the forefront of this area.

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