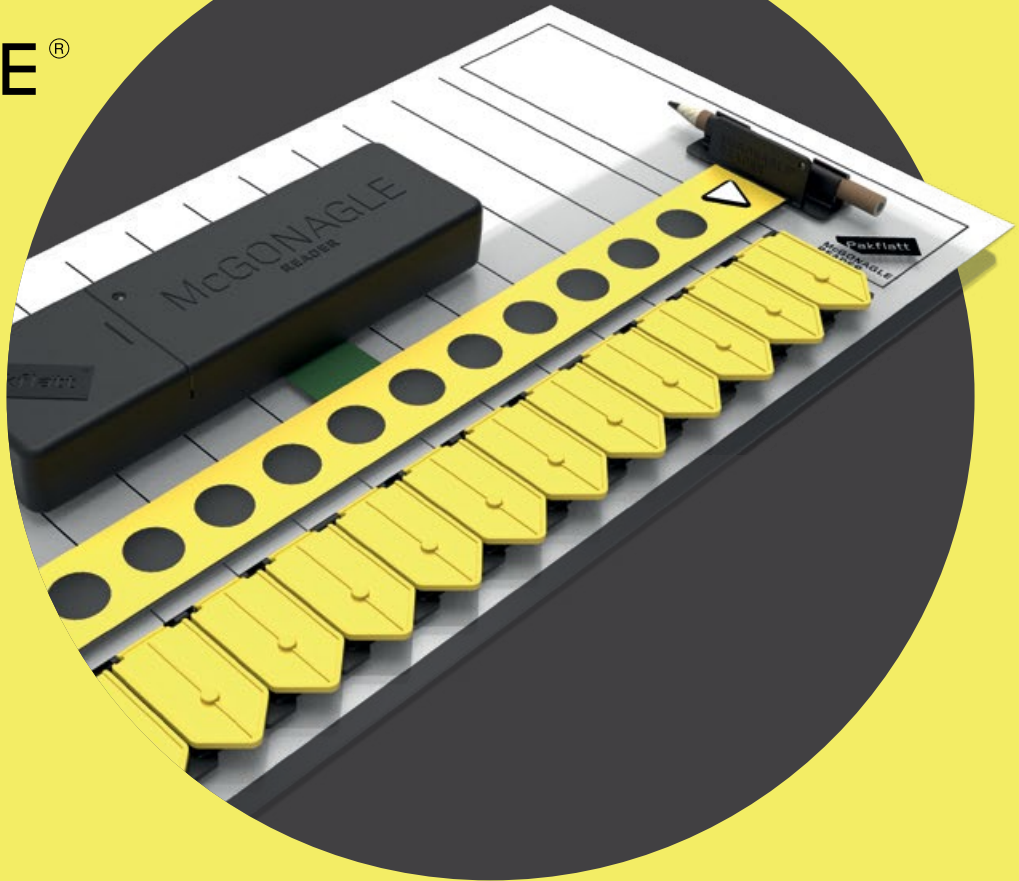INTRODUCING THE

McGONAGLE®
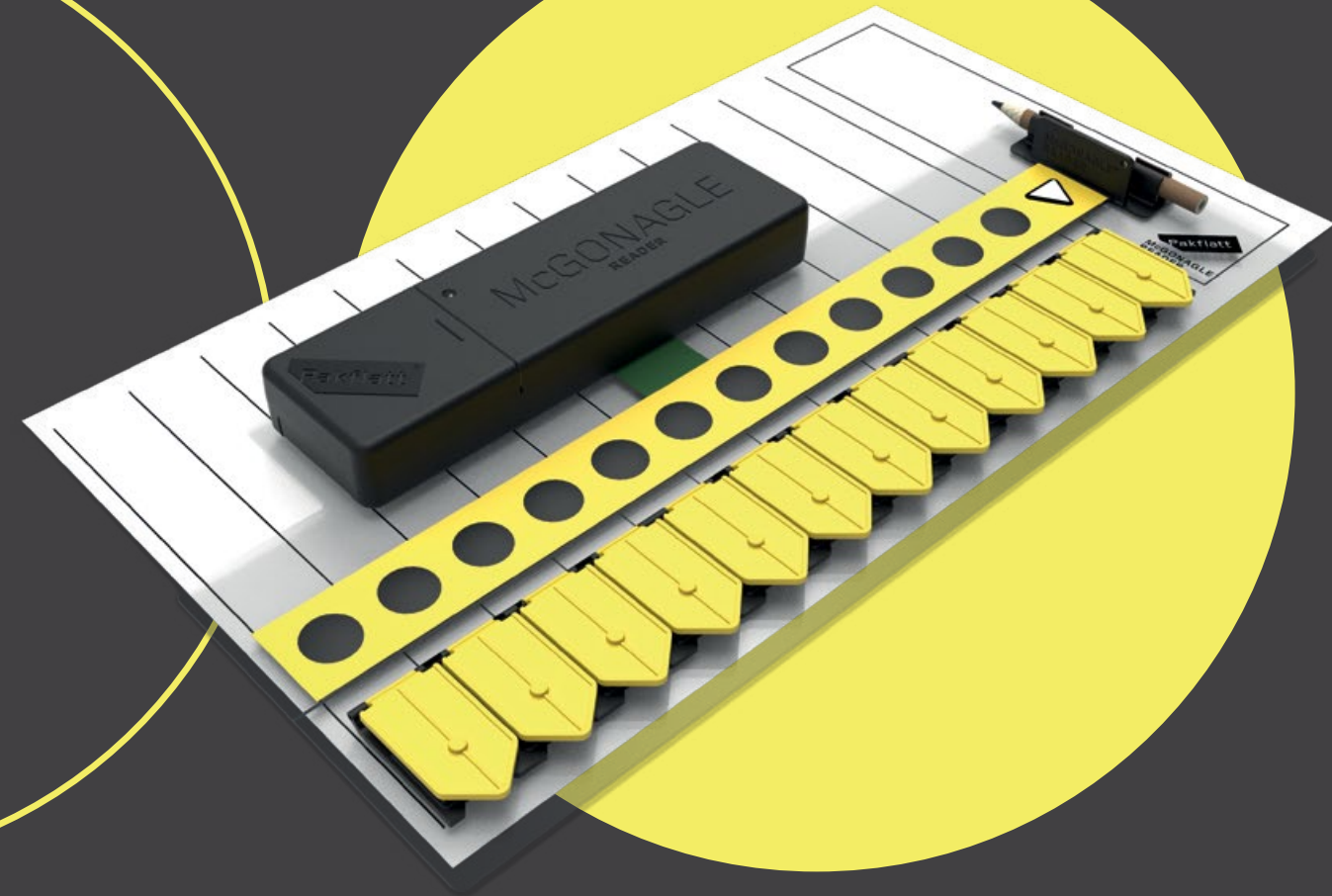# READER

A NEW, PATENTED
AUDIO VOTING
SYSTEM FROM

Pakflatt®

Pakflatt announces that it has successfully completed the testing phase of its new global solution for blind and partially sighted voters.

The McGonagle® Reader will now be available for political elections worldwide and will enable blind and partially sighted voters to mark a ballot paper independently, in secret and with confidence.

"I lost my vision in my early years but now, for the first time in my adult life, thanks to the McGonagle® Reader, I can vote independently and in secret."

....

Declared by **Joe Kenny**, a popular musician and songwriter from Co. Armagh, Northern Ireland in an introductory session at the Carnegie Library, Belfast.

In the evidence we have gathered from blind people, we were struck, quite literally, by how much in the dark a blind person feels when they present at a polling station.

"I didn't even know if the ballot paper was the right way up or whether the pencil was working."

Anna Rigby, a visually impaired lady speaking on 'In Touch', a BBC radio programme, 3/11/20.

As a result of this learning, we have striven to create a mental picture of the ballot paper for the blind voter.
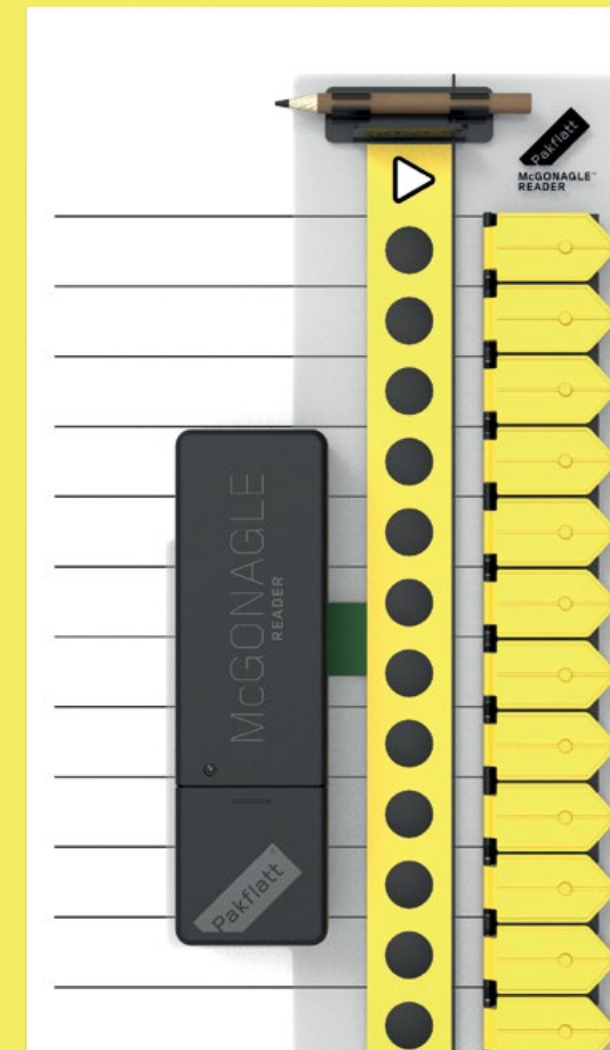
Creating an audible glance - helping the elector to form a mental picture of the ballot paper before they pick up the pencil.

The white triangular information key at the top of the vertical column of doorbells announces the vital elements of the ballot paper which are:

· the header announcing the office that candidates will be elected to

· the directions as to whether the poll is FPTP, STV or AMS.

It now announces the number of candidates and an abbreviated list of their surnames in alphabetical order and their first given name.

This is all information that a sighted elector can assimilate with a cursory glimpse so it has the effect of levelling the playing field.
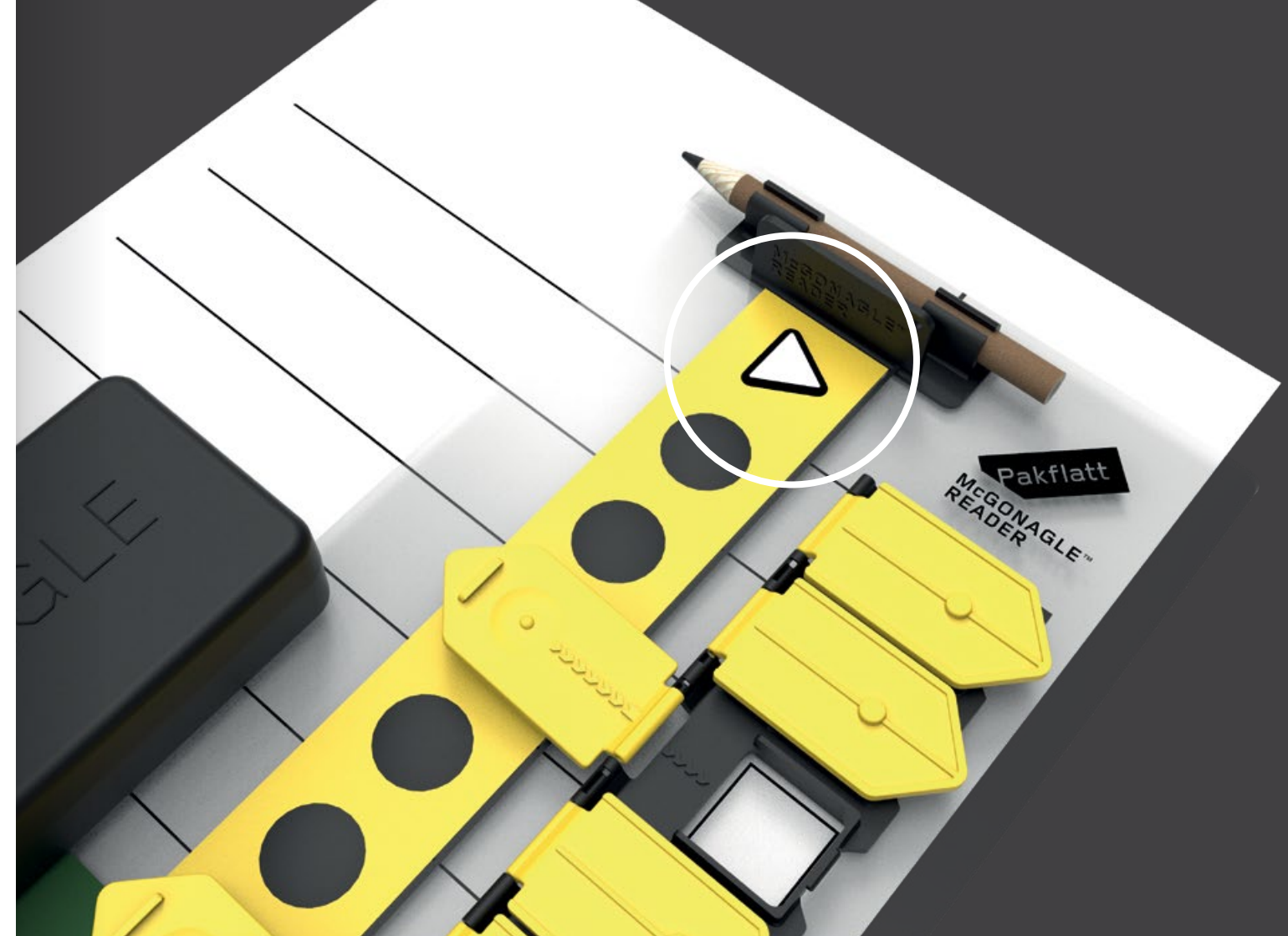
CREATING THE AUDIO VOICE FILE

At close of nominations, the Returning Officer will publish the Certificate of persons nominated and this data, which is ordinarily provided to ballot paper printers, is converted, processed as shown opposite and made available on SanDisk Cruzer Spark USB.

FEATURES

Ballot paper text to audio conversion:

- Enables self-service
- Caters for three ballot paper formats
- Deals with bilingual ballots
- Caters for pronunciation of regional and foreign names
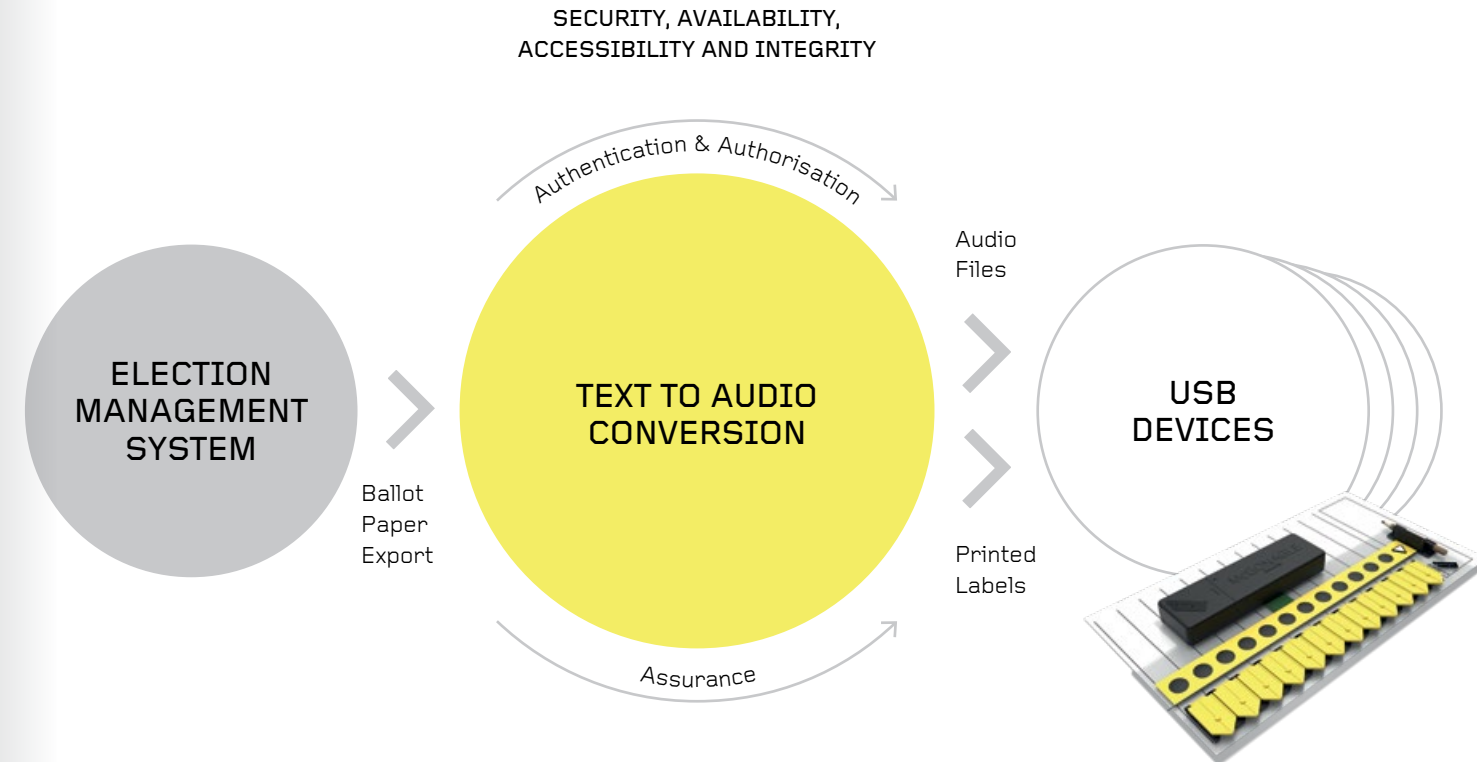- Enables users to assure themselves of the quality of the audio conversion

Enables the printing of contest labels for the USB devices

Enables the assignment of contests to USB devices

Ensures security, availability, accessibility and integrity

Meets the audio and file-naming format requirements of the McGonagle® Reader

CONCEPT OVERVIEW

SECURITY, AVAILABILITY, ACCESSIBILITY AND INTEGRITY

ELECTION MANAGEMENT SYSTEM

Ballot Paper Export

Authentication & Authorisation

TEXT TO AUDIO CONVERSION

Assurance

Audio Files

Printed Labels

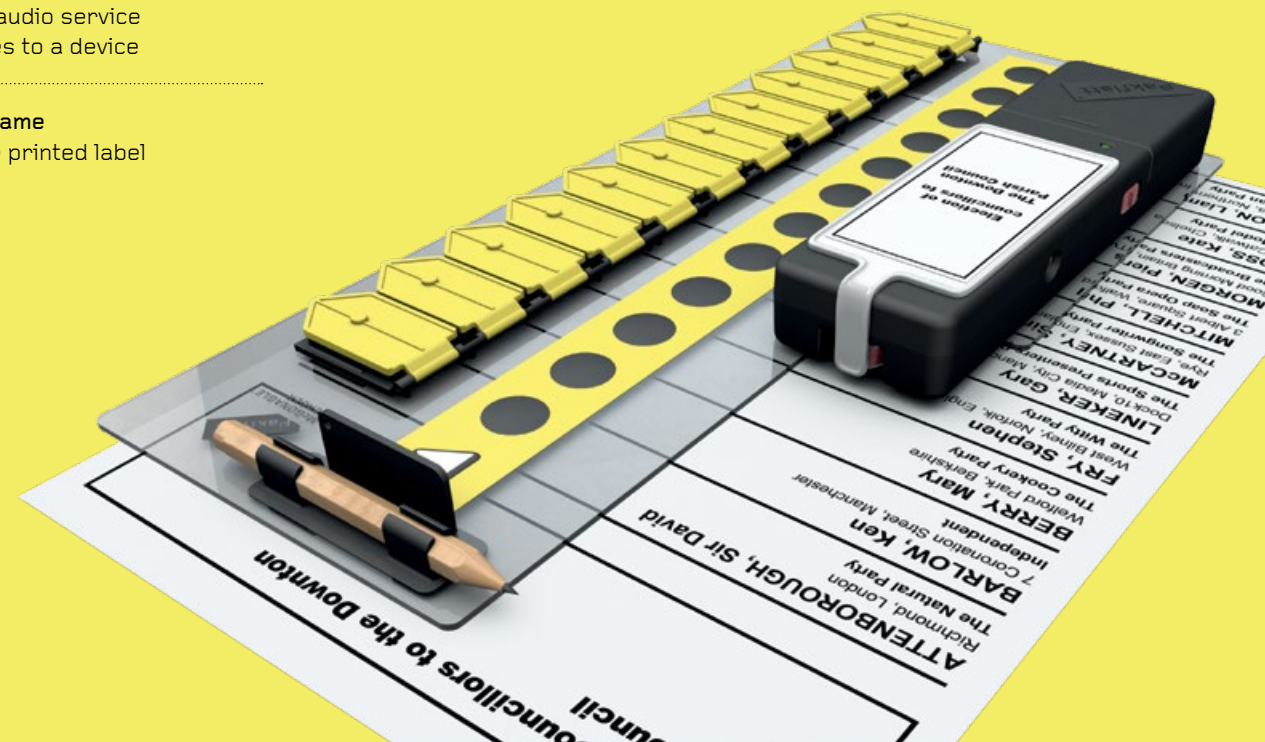USB DEVICES

AUTHORISATION & ASSIGNMENT

Each USB device is given a unique name

Virtual device name
Used by the text to audio service
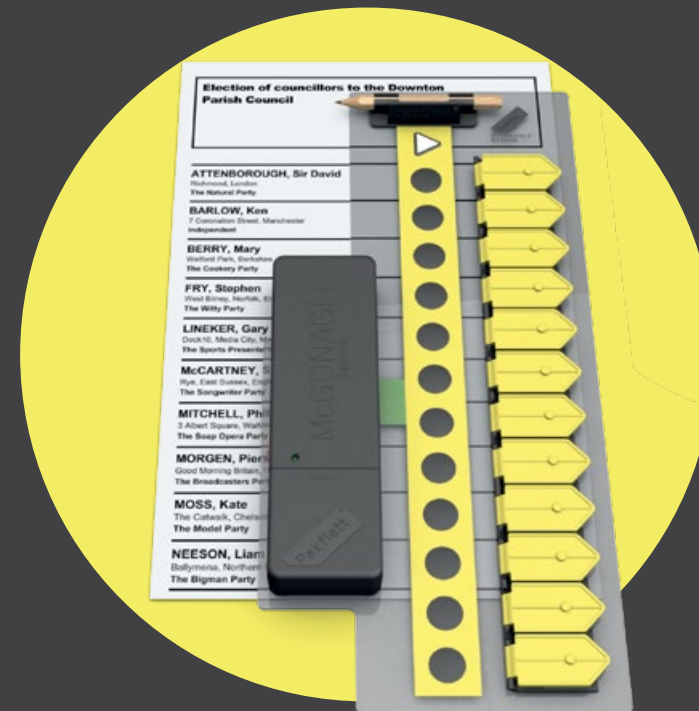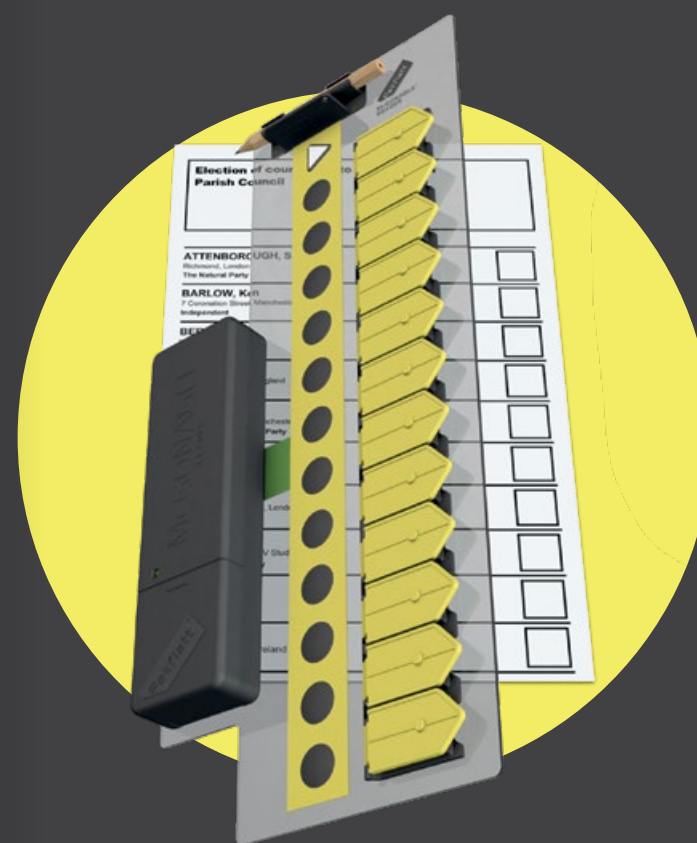to allocate audio files to a device

Physically printed name
Used to allocate the printed label
to the device
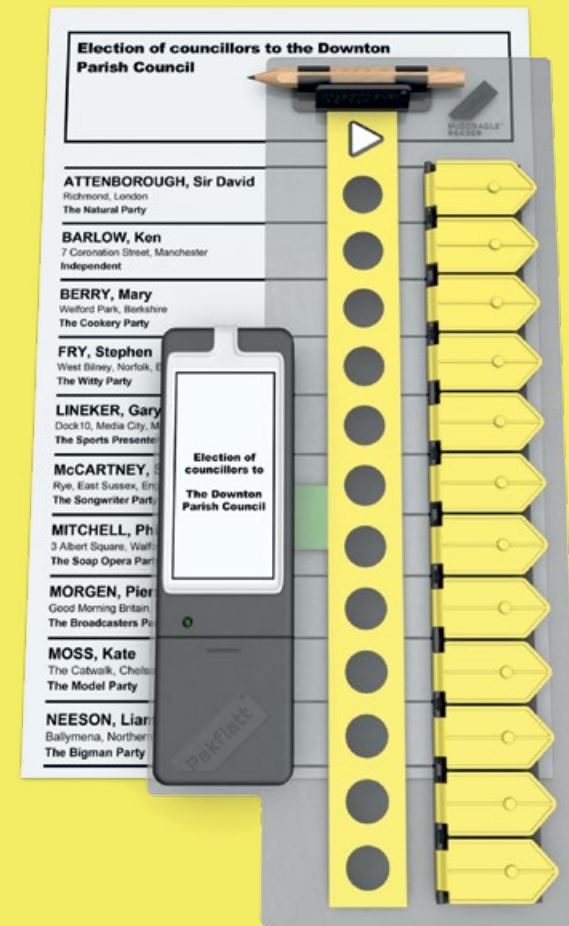
PREPARING THE
McGONAGLE® READER

**1**

Peel the backing strip from the MGR (McGonagle® Reader) and attach it to the ballot paper, ensuring that the marking boxes on the ballot paper are aligned with the marking arenas under the hinged doors.

PREPARING THE McGONAGLE® READER

2

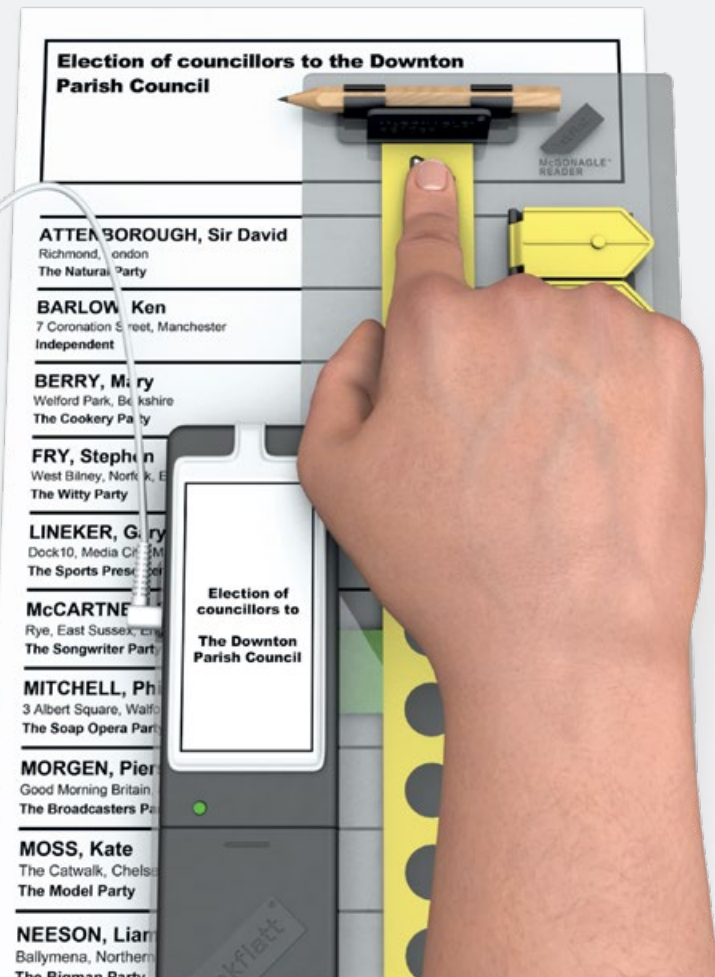Insert the audio voice file in the USB port of the MGR and check that the header on the ballot paper and the ticket on the voice file are the same.

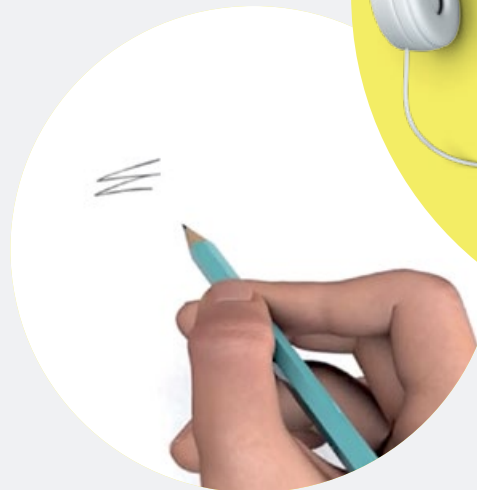# PREPARING THE McGONAGLE® READER

3
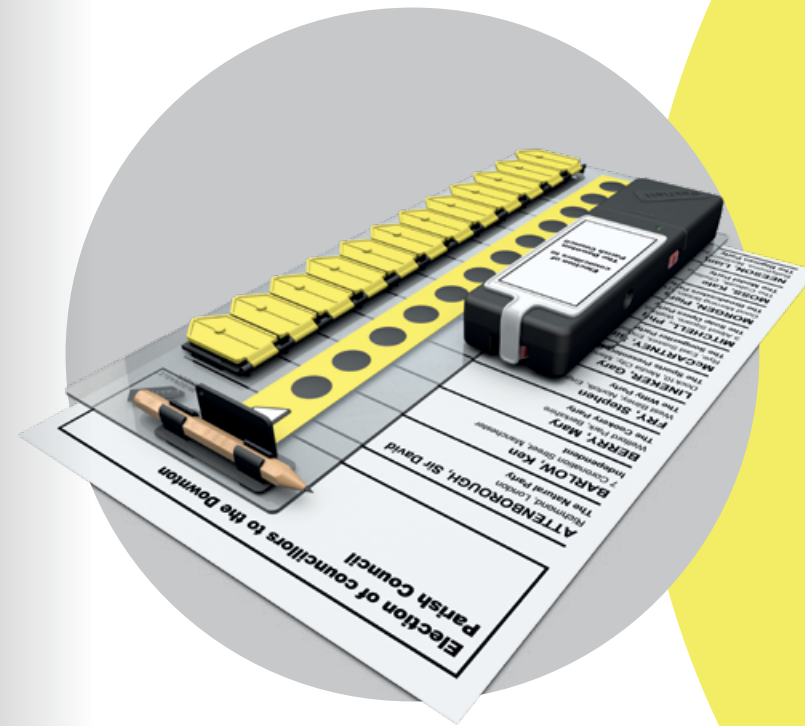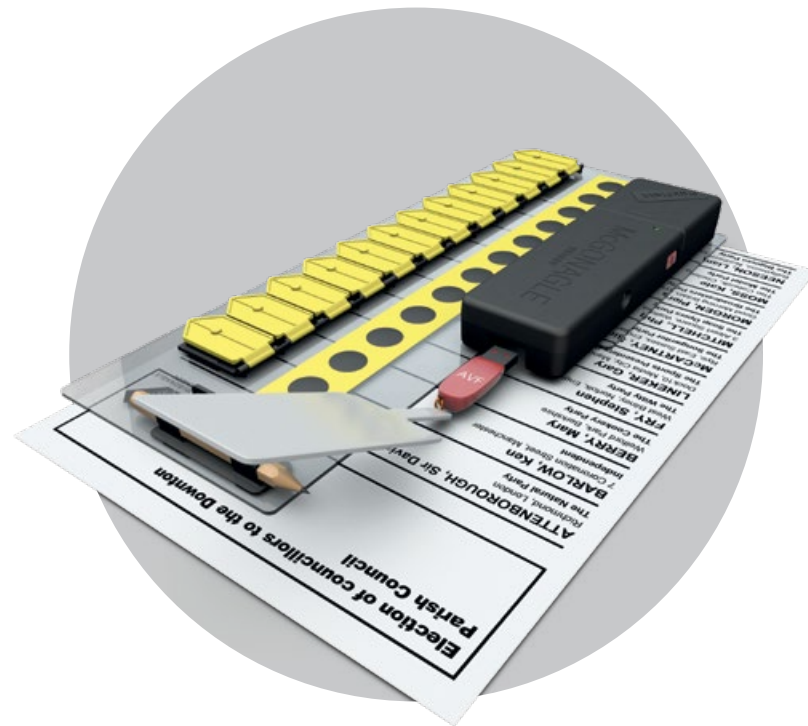
Using the system speaker, confirm that the candidates on the voice file match those on the ballot paper.

4

Check that the pencil is working properly and replace the system speaker with the system headphones.

EXPLAINING THE McGONAGLE® READER

Now that everything is ready, using the MGR needs to be explained to the elector in as simple a way as possible.

There are at least three methods to be considered for using the system to mark the ballot paper:

METHOD 1

Open the door, ring the bell, make your mark and close the door. Repeat as often as needed.

METHOD 2

Open the door, ring the bell, make your mark and leave the door opened for later review. When finished, close the doors.

METHOD 3

Open all of the doors of the candidates you intend to vote for. Then go back and cast your votes at the open doors. Close the doors.
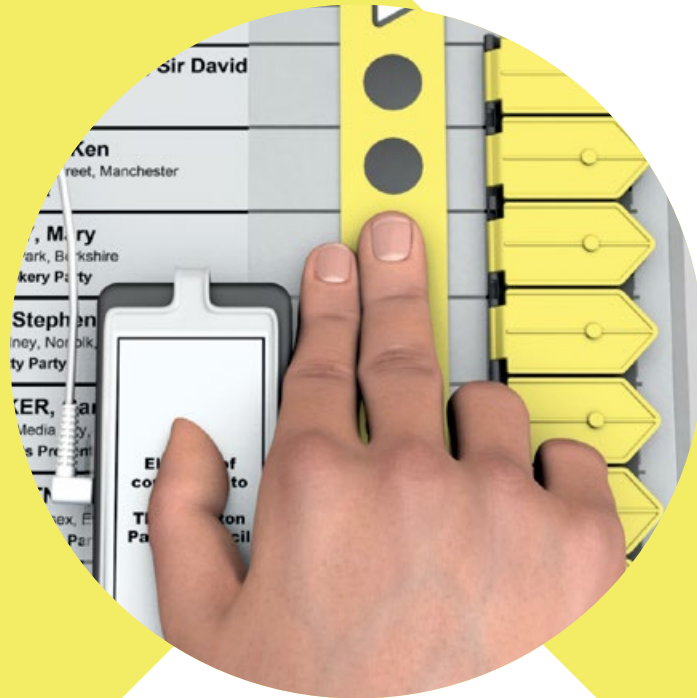
FIND AND RING A CIRCULAR DOORBELL
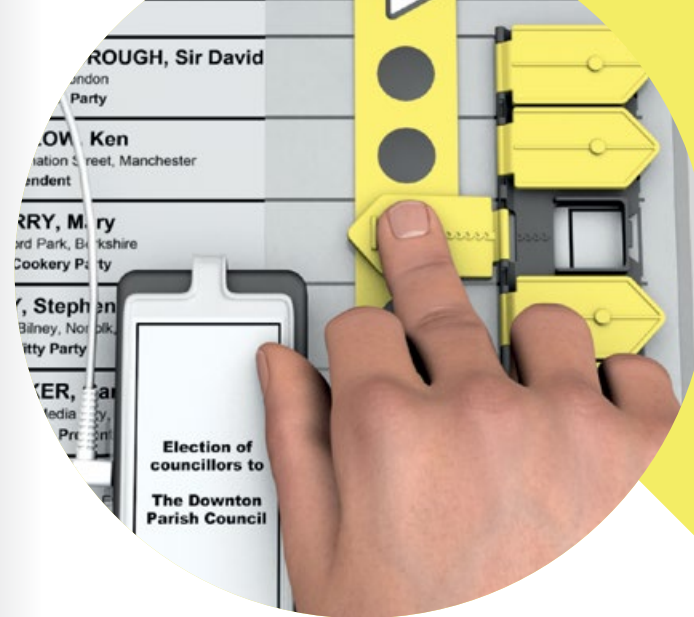
OPEN THE DOOR BACK THROUGH 180º AND RING THE DOORBELL AGAIN

RING THE BELL AGAIN FOR CONFIRMATION AND MAKE YOUR MARK

Prior to going into service, it was essential that the system should be tested with an appropriate sample size of blind and partially sighted people.

The following pages give an overview of the results of surveys with Irish organisations for blind and partially sighted citizens, carried out on our behalf by Ciaran Manning of Manalog Ltd in April 2022.
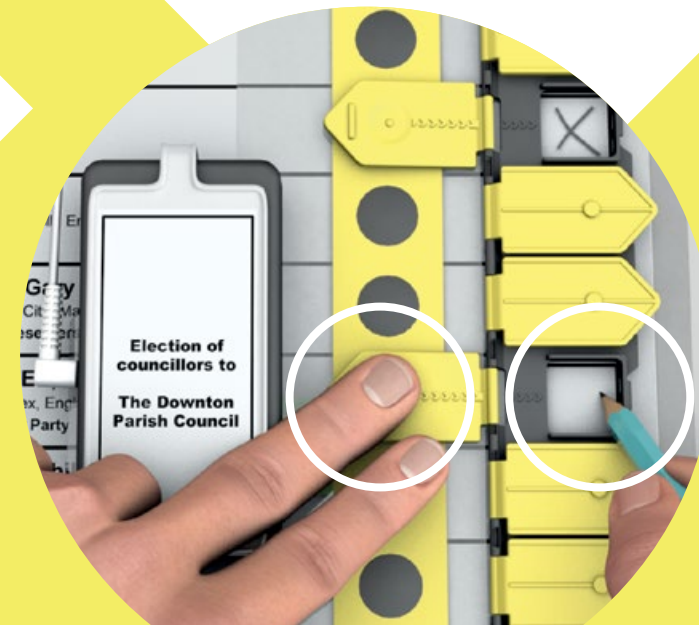
Q

"How can a sample of only 1,000 people possibly reflect the opinions of 42 million UK citizens within a 3% margin of error?"

[1:42,000]

A

There is a time-honoured answer to this question that goes back to George Gallup, the American who first developed opinion polling in the 1930s: if you have a large bowl of soup, you don't have to drink the whole bowl to decide if it has too much salt in it - just stir it well, and one spoonful will suffice.

With the latest available data, we can tell there are just under 400,000 registered blind people in the UK & Ireland. Using the George Gallup equation, our sample size of 20 volunteers equates to a community of 840,000 people, so it's therefore more than adequate for the capability assessment that we seek to make.

TESTING THE McGONAGLE® READER

ABOUT THE VOLUNTEERS

Our volunteer respondents came from The National Council for the Blind in Ireland (NCBI; Ireland's national sight loss agency) and Voice of Vision Impairment (VVI; a Disabled Persons Organisation).

The interviews were conducted on our behalf by Ciaran Manning of Manalog Ltd in Dublin and other regional centres. The sample consisted of 13 female and 7 male respondents in a broad age range from 20s to 60s, with the majority being in the middle of that range.

VISION, LANGUAGE & WRITING LEVELS

RESIDUAL VISION:

In this assessment, 8 of our volunteers had no vision at all, while most of the others had less than 50%. The vast majority of the group spoke English as a first language and were substantially tech savvy.

We had 16 right and 4 left handers, all of whom were pencil competent in Arabic numerals with around 50% familiar with using Roman numerals which are an acceptable method of marking Irish STV ballot papers.

IMPORTANCE OF RIGHT TO VOTE & PREFERENCES

The majority of the group placed a high value on the importance of their right to vote, with a significant number preferring to vote at a polling station.

The majority depended on a trusted companion for assistance with a small number needing help from an election official. None of our sample used the postal vote system.

ABOUT THE QUESTIONS

In the feedback section alone, 24 questions in total were asked of all Ciaran's volunteers in a range of single and multiple choice assessments, the answers to which we have measured from 0% negative to 100% positive.

Importance of Right to Vote (from survey)
Very Important: 70%
Important: 30%

TESTING THE McGONAGLE® READER

Seven group responses were 100% positive with at least four particularly remarkable examples:-

Were you confident you voted as you had intended?

100%

Did you feel you had voted independently and in secret?

100%

Would you be happy to vote this way again?

100%

Would you recommend to a friend?

100%

Of the other 17 group responses:

12 were	90%+
2 were	85%+
1 was	45%+

and 2 were not performance related
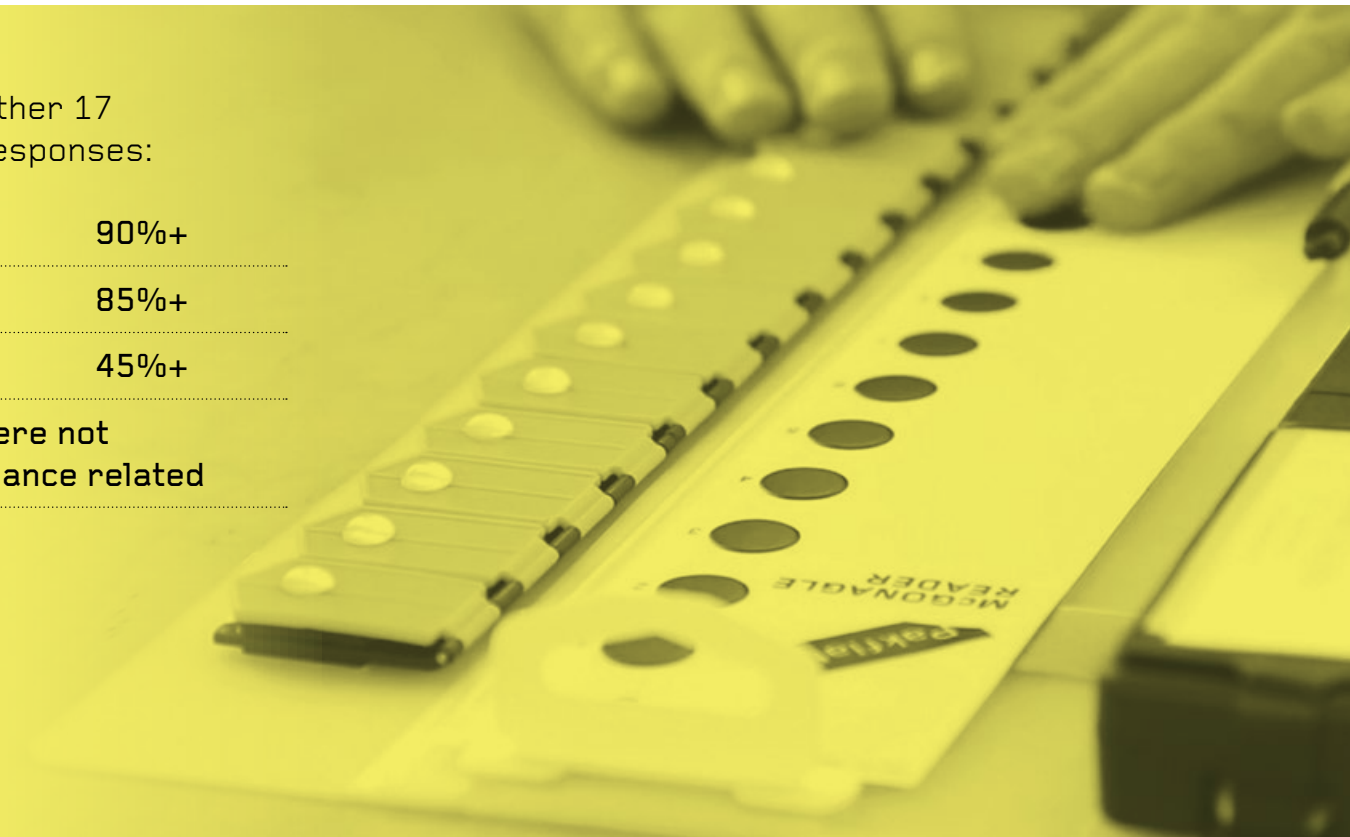
TESTING THE McGONAGLE® READER

PRIOR TO CASTING YOUR VOTE

Was the introduction
easy to understand?
Yes – 95%

Was the triangular button
easy to find and use?
Yes – 95%

Was the information about
election easy to follow?
Yes – 100%

How helpful was it to hear
the number of candidates?
Extremely helpful – 95%
Helpful – 5%

How helpful was it to hear
names of candidates?
Extremely helpful – 80%
Helpful – 20%

NAVIGATING & MARKING

Ease of navigation
ringing doorbells?
Easy – 95%
Difficult – 5%

How helpful was ability to
ring bell multiple times?
Extremely helpful – 95%

Ease of opening door
and ringing doorbell?
Extremely easy – 90%

Were raised walls around the
marking space helpful?
Yes – 95%

Was leaving doors open
after voting helpful?
Yes – 100%

Were doors easy
to snap closed?
Yes – 100%

Ease of separating ballot
paper from AVS?
Easy – 95%
Difficult – 5%

Ease of use without
prior introduction?
Easy – 45%
Difficult – 55%

TESTING THE McGONAGLE® READER

AFTER YOU CAST YOUR VOTE

Were you confident you voted
as you had intended?

Yes - 100%

_____

Would you be happy to
vote this way again?

Yes - 100%

_____

Did you feel you had voted
independently and in secret?

Yes - 100%

_____

Would you recommend
to a friend?

Yes - 100%

_____

Overall ease
of use rating?

Easy to use - 95%

_____

POST USER REVIEW

Time taken to understand the
system (minutes)?

0-5 minutes - 75%

_____

Legibility of marked ballot paper
to officials at the count:

FPTP Multiple Vacancy paper

**Voter's intention
clearly legible - 90%**

PRSTV ballot paper

**Voter's intention
clearly legible - 85%**

_____

Could marking identify
the voter?

No - 100%

_____

TVD SALES HISTORY

While the McGonagle® Reader attaches to the ballot paper in the same way as the historical TVD, we are conscious that the assembly is significantly more rigid and perhaps not as easily managed in a polling booth.

However, on our analysis of TVD sales from the 2001 General Election until 2021, the majority of TVDs sold indicate that 99.14% were for less than 20 candidates on the ballot paper.

Total number of TVDs manufactured and supplied since the 2001 UKPGE

360,938

99.14%
12/15/20 CANDIDATE CAPACITY

60.70% — 12 CANDIDATE CAPACITY (219,098 no.)

28.24% — 15 CANDIDATE CAPACITY (101,927 no.)

10.20% — 20 CANDIDATE CAPACITY (36,792 no.)

00.86%
25/30/36 CANDIDATE CAPACITY

0.79% — 25 CANDIDATE CAPACITY (2,868 no.)

0.01% — 30 CANDIDATE CAPACITY (54 no.)

0.06% — 36 CANDIDATE CAPACITY (199 no.)

PACKAGING THE
McGONAGLE® READER

We will have a contingency in due course for XL ballot papers and are in the process of developing a method of dealing with large assemblies, by using the packaging as a temporary private space at a table.

The McGonagle® Reader and all of its components will be presented in a special cardboard engineered packet with a removable structural foam insert that will double as a desk easel, while the outer carton will double as a privacy screen.

All McGonagle® Reader systems will be supplied within their individual packaging and presented in robust, multiple-time, reusable pallet boxes. These boxes are intended to safely store and maintain the systems in between elections. A service level agreement will be available from Pakflatt in due course.
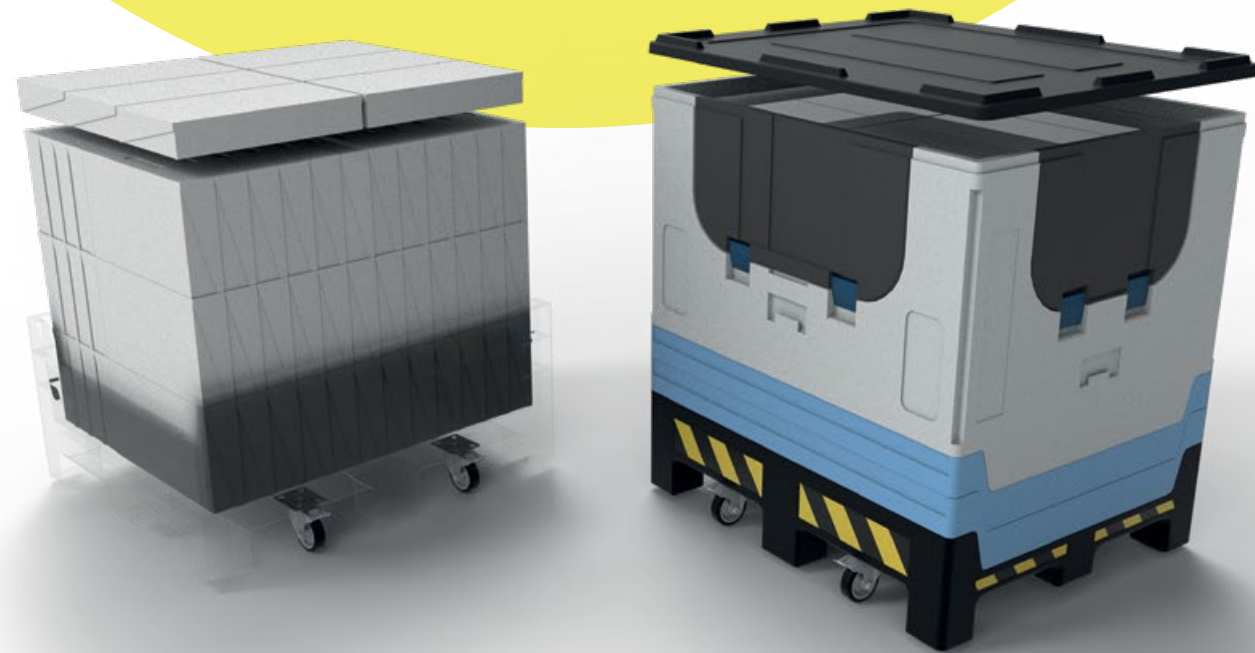
EQUIPPING ELECTIONS EVERYWHERE

Pakflatt®

World leaders in accessible election equipment

Pakflatt®

McGONAGLE®
READER