

National Roads Authority Archaeological Geophysical Survey Database 2001-2010: Archive Report

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Survey Event No. **71**
Survey Name **N2 Finglas - Ashbourne Road Scheme, Co. Meath (Contract 2)**

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Known problems with this report

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SURVEY RESULTS**2002 / 43 N2 Finglas - Ashbourne Road Scheme
Co. Meath****1. Survey Area**

- 1.1 After an initial scan of the entire length of the proposed road corridor, 30 areas of varying sizes were subjected to detailed survey that together totalled 25ha. The survey areas were positioned along baselines consisting of markers at 50m intervals that were positioned using a GPS system
- 1.2 Figures 1 to 5 show the route of the proposed road and the locations of the individual survey areas at a scale of 1:10 000. Areas 6 and 22 have been divided into four parts and two parts respectively for the purpose of display in the archive section of the report. The results from these areas will be discussed as a whole in the text.

2. Display

- 2.1 The results are displayed as X-Y traces, dot density plots and greyscale images. These display formats are discussed in the *Technical Information* section at the end of the text.
- 2.2 Figures 1 to 39 are summary greyscale images and interpretations of the survey results superimposed on the Ordnance Survey base maps at a scale of 1:2500. In addition, summary results from the previous survey areas (Sites 49, 55 and 58) are included at the same scale.
- 2.3 Figures A1 to A56 are data plots and interpretation diagrams produced at a scale of 1:625 in a separate Archive Section.
- 2.4 Letters in parentheses in the text of the report refer to anomalies highlighted in the relevant interpretation diagram.

3. General Considerations - Complicating Factors

- 3.1 The soils are of a type that would be expected to provide a good magnetic contrast, particularly where strong magnetic enhancement associated with occupation activity has occurred. It is likely that sites of minor archaeological activity and field systems will be detected due to the low level of background noise associated with the soils in this region.
- 3.2 Ground conditions for detailed survey varied from field to field. Maturing cereal crops in some areas impeded the progress of the survey but have not significantly affected the quality of the recorded data. A number of fields had a short to medium grass cover and were generally good for survey. Three fields under potato cultivation were deemed unsuitable for scanning, but detailed survey was carried out in two of them. Part of the road corridor passes through Newtown Golf Course. Disturbance caused by landscaping, tree planting and pipes associated with sprinkler systems, made scanning problematic. Small garden plots and roadside verges were not considered to be suitable for scanning or detailed survey.
- 3.3 Small-scale ferrous anomalies have been recorded in all survey areas. Unless otherwise stated, these responses are considered to be due to modern debris or possibly magnetic cobbles and

boulders in the topsoil. They are not thought to be of archaeological interest.

4. Results of Scanning

- 4.1 With gradiometers in scanning mode, the road corridor was examined along traverses spaced at intervals of approximately 10 to 15m. During this operation, fluctuations in magnetic signal were observed on the instruments display panel. Any significant variations were investigated more closely to determine their likely origin. The approximate positions of those anomalies considered to have archaeological potential were recorded on maps for subsequent detailed survey.
- 4.2 Few clear anomalies of archaeological interest were observed during the scan. The presence of two sites of archaeological potential was identified at this stage; most of the remaining archaeological type anomalies being isolated in nature.
- 4.3 Detailed survey concentrated on the few scanned anomalies that appeared to have archaeological potential. In addition, a number of sample areas were subjected to detailed survey. These were positioned near known archaeological sites and in topographically significant locations. Some samples of detailed survey investigated areas that appeared to be 'magnetically blank' during the scan.

5. Results of Detailed Survey

Area 1

- 5.1 Slight variations in magnetic response were observed at the time of the scan. They were seen to coincide with a hilltop location and ground surface undulations.
- 5.2 Two linear anomalies forming an 'L' shape are present in the data. They may represent part of an enclosure and/or the remains of former field boundaries. A region of increased magnetic response (1) is discernible in the data that is accompanied by pit type anomalies and short ditch lengths. These anomalies may represent the site of minor settlement activity, disturbed by ploughing. However, the interpretation is cautious; this anomalous area could indicate a spread of modern magnetic debris in the topsoil.
- 5.3 Several ill-defined trends are shown on the interpretation diagram. These may be of archaeological interest but are equally likely to be due to recent agricultural activity.

Area 2

- 5.4 Area 2 was positioned in a part of the road corridor that was found to be magnetically very quiet during scanning.
- 5.5 The results from this area illustrate the very low level of background response encountered throughout much of the length of the proposed road. Other than a few magnetically weak linear trends, that are likely to be natural or agricultural in origin, no anomalies of interest have been recorded.

Area 3

- 5.6 Fluctuations in magnetic response were recorded at the time of the scan on a prominent hilltop location.

- 5.7 A linear response and a segment of a possible enclosure were recorded within the corridor of the proposed road. Survey was extended to the west to confirm this interpretation and half of a ring ditch (2) was eventually identified; the remaining half lies under a farmyard. With an approximate diameter of 30m, the feature is typical of that associated with a ringfort. Pit type anomalies and linear features have been detected, indicating settlement activity within the enclosure.
- 5.8 Linear anomaly (3) may be a subdividing ditch of the enclosure but could be a relic of magnetic interference from adjacent farm buildings. Linear anomaly (4) may represent part of a field boundary of more recent date. However, archaeological type responses to the north suggest that (4) may be a settlement enclosure ditch.
- 5.9 A number of linear trends aligned approximately north-south are present in the data and are thought to represent cultivation ridges.

Area 4

- 5.10 This field was not scanned due to its location immediately to the north of the Killekland (Site 49) survey in which a ring ditch and a complex of settlement type responses were recorded (GSB 2002). It was thought that archaeological remains were likely to extend northwards into Area 4.
- 5.11 Magnetically weak linear responses and more substantial pit type anomalies were recorded in this area. They are assumed to indicate the northern extent of the Killekland site. The anomaly strength is much reduced when compared to those recorded in Site 49. This may be a consequence of the features being distant from the core occupation area. However, Site 49 occupies a pasture field, while Area 4 lies within a field that is under cereal cultivation and is likely to have been adversely affected by ploughing.

Area 5

- 5.12 This survey area was positioned to investigate a pasture field between the Killekland site and a large settlement complex recorded in Area 6.
- 5.13 Magnetically weak linear responses and trends, and small-scale pit type anomalies, were recorded that may be of archaeological interest. They could equally relate to variations in the topsoil caused by agricultural activity.
- 5.14 Ferrous disturbance present at the southernmost extreme of the survey area is due to nearby wire fences.

Area 6

- 5.15 A cluster of archaeological type anomalies was identified during scanning over a pronounced hilltop.
- 5.16 Survey was extended to the east and west of the road line in order to determine the full nature and extent of the site. The archaeology can be seen to comprise a series of enclosures contained within large boundary ditches. The features overlap in a number of places indicating more than one phase of settlement activity. Numerous pit type anomalies suggested that the settlement site may be quite extensive.

- 5.17 The site appears to be divided into two approximately equal halves. One is centred on a ring ditch (5) measuring 25m in diameter that is contained within an irregular enclosure. The other part of the site is broadly a 'D' shaped enclosure occupied by a ring ditch (6) measuring 30m in diameter; it is surrounded by further enclosure ditches and field divisions. The stronger magnetic anomalies recorded at (7) would suggest it to be the focus of occupation activity and possibly industrial activity; they coincide with the highest part of the hill. There is the suggestion of a third circular enclosure (8), partially obscured by strong ditch anomalies (9).
- 5.18 The ditch type anomalies appear to decline in magnetic strength towards the margins of the survey area. They are located within the lower lying parts of the field that are subject to flooding. It is possible that a combination of factors accounts for this change; waterlogged ground conditions may have prevented magnetic enhancement from occurring and alluviation may be attenuating the signal. Alternatively, features may have been washed out by flooding. Distance from core settlement areas and a consequent reduction of enhanced material within feature fills can often result in the decline of magnetic response.
- 5.19 Linear responses and part of an enclosure (10), in the northern part of the survey area, suggest the presence of further settlement activity.
- 5.20 Linear trends are indicated on the interpretation diagram and many are likely to indicate remains of archaeological features. However, a group of parallel trends aligned approximately east-west are likely to represent cultivation ridges.
- 5.21 Negative linear responses (11) in the eastern part of the site are thought to be due to modern drainage, as they appear to cut a number of ditch type responses. However, the possibility that these responses are of archaeological interest cannot be dismissed.
- 5.22 A ferrous anomaly (12), in the east of the survey area, is due to a livestock feeder. A similar but smaller response (13) in the west is presumed to be due to modern ferrous debris in the topsoil.

Area 7

- 5.23 Magnetically strong, but broad anomalies, were encountered during scanning of a field that slopes downhill to a stream in the south.
- 5.24 The anomalies are consistent with those produced by natural soil variations. Given the close proximity of the stream, it is likely that these anomalies represent part of a palaeochannel. While this feature may yield useful environmental material, it is not thought to be directly of archaeological interest.
- 5.25 A linear response (14) and a weak magnetic trend that is aligned with the probable palaeochannel, and the stream, have also been recorded. They are likely to be due to drainage features but an archaeological interpretation cannot be dismissed.
- 5.26 Two possible archaeological type anomalies (15) have been identified but the interpretation is doubtful. They may be due to modern disturbance, such as dredging of the stream channel.

Area 8

- 5.27 This field was not scanned due to the presence of deep ridges for potato cultivation and detailed survey was carried out instead. The hilltop location overlooking a stream was also considered an additional reason for investigating this field.

- 5.28 A ring ditch (16) measuring 20 to 25m in diameter has been detected. It is accompanied and slightly overlapped by an irregular enclosure (17) and crossed by a linear ditch response. The later could be the remains of a more recent field boundary.
- 5.29 To the south of anomaly (17) a group of anomalies (18) has been detected that may indicate a rectangular enclosure with a 5m diameter ring ditch or a division within a rectangular structure. Weak linear ditch type responses and trends extend to the south. The anomalies strength can be seen to decline to background noise levels towards the edge of the survey area.
- 5.30 Towards the northeast, a ring ditch of 5m in diameter and a cluster of linear responses and pit anomalies (19) suggest further settlement that appears to be un-enclosed. The fragmented pattern suggests that the site has suffered plough damage.

Area 9

- 5.31 A group of archaeological type anomalies, that suggested the presence of settlement features, was identified during scanning over rising ground.
- 5.32 An irregular anomaly that is archaeological in nature, but not an obvious shape, has been recorded at the western end of the survey area. It appears to have been produced by an isolated feature or group of features. Although the archaeological interpretation cannot be dismissed entirely, it is likely that the anomaly represents a spread of modern debris in the topsoil.

Area 10

- 5.33 A cluster of potential archaeological type anomalies was identified during the scan within a noisy background containing many ferrous responses. They lie immediately to the east of Site 54 of the desktop study, where a possible medieval field system has been identified from aerial photographs.
- 5.34 A group of possibly three partial enclosures has been recorded in the southern part of the survey area. They are occupied by a number of well-defined pit type anomalies indicative of settlement activity.
- 5.35 A scatter of ferrous debris has been detected that appears to coincide with the probable archaeological remains. While it is possible that these anomalies represent iron debris associated with medieval settlement, it is likely that these ferrous signals represent modern debris in the plough soil.

Area 11

- 5.36 The field occupied by Area 11 was under potato ridges and was not scanned. The survey area was positioned over Site 56 and between Sites 32 and 57 of the desktop study. Site 56 is a possible ring ditch, Site 32 is a souterrain and enclosure, while Site 57 is a large mound of uncertain origin.
- 5.37 The broad and irregular group of anomalies that coincide with Site 56 are typical of those produced by natural soil variations. However, It is possible that the anomalies could represent ploughed out earthworks and, therefore, the archaeological potential of these anomalies cannot be ruled out entirely. It was noted at the time of the scan that the mound (Site 57) appeared to be

subject to quarrying. It is possible that the anomalies recorded in the centre of Area 11 relate to ploughed out quarry workings.

- 5.38 Small scale pit type anomalies (20) and other magnetically weaker trends have also been recorded that may be of archaeological interest. However, it is possible that recent farming and disturbance could account for these responses.

Area 12

- 5.39 Area 12 was positioned over a part of the field that was seen to be magnetically noisy during scanning, though no clear archaeological type anomalies could be identified.
- 5.40 Groups of small-scale anomalies have been detected in this area. Most can be seen to be ferrous in origin and are no doubt due to modern debris in the plough soil. However, one group (21) has been highlighted as being of possible archaeological interest. The interpretation is cautious as no obvious archaeological pattern is present in the data.

Area 13

- 5.41 A block of detailed survey investigated slight fluctuations in magnetic signal observed during the scan to coincide with a rise in ground level in the centre of the field.
- 5.42 Two magnetically weak linear anomalies have been recorded, with other trends, that suggest the presence of ditches. However, the interpretation is doubtful, as the anomalies may represent modern disturbance; the results are punctuated by small-scale ferrous anomalies.

Area 14

- 5.43 Two isolated pit anomalies were identified within a quiet level of background response during scanning.
- 5.44 One broad anomaly of possible archaeological interest has been recorded at the northern extreme of the survey area. It appears to be isolated and may represent recent agricultural ground disturbance. Magnetically very weak trends are indicated on the interpretation diagram in the southern part of the survey area.

Area 15

- 5.45 A series of earthworks observed in the southern part of the survey area and scanned fluctuations in signal were investigated in Area 15.
- 5.46 The results show a series of magnetically weak linear responses and trends that appear to coincide with the earthworks. It is likely that most are topographic in origin; the magnetic variations being caused by irregularities in the ground surface. It is possible that these anomalies represent a group of archaeological features that have been damaged by ploughing.
- 5.47 Survey was extended to the north and confirmed the presence of a pipe or modern drain running approximately east-west across the field.

Area 16

- 5.48 An isolated archaeological type anomaly was identified during scanning that was seen to coincide with a visible rise in ground level.
- 5.49 Magnetically weak linear responses and trends have been recorded but no obvious archaeological pattern emerges from the results.

Area 17

- 5.50 An isolated response was observed during scanning at the southern extreme of the field. A curving boundary nearby suggested that an enclosure might be present.
- 5.51 A cluster of responses and trends has been detected, most in the southern part of the survey area. There is no recognisable archaeological pattern and the interpretation is inconclusive. The presence of ferrous anomalies suggests that the group of anomalies might be associated with modern disturbance.

Area 18

- 5.52 An isolated response was encountered during scanning in an otherwise very quiet level of background magnetic response.
- 5.53 An intermittent linear anomaly (22) runs approximately east-west across the survey area. It is likely to represent the course of a former field boundary that has been ploughed out.
- 5.54 A series of trends aligned approximately north-south are considered to be due to recent ploughing and are not thought to be of interest.

Area 19

- 5.55 Area 19 lies between Sites 61 and 62 identified during the desktop assessment. Both refer to crossing points of the proposed road with the Ward River and highlight possible foci of occupation activity. Isolated anomalies and an increase in background noise levels were observed to coincide with a rise in topography.
- 5.56 Two well-defined linear anomalies run across the southern part of the survey area and could be of archaeological interest. However, it is possible that they are drainage features and/or field boundaries that may have been removed in the recent past.
- 5.57 The linears are accompanied by regions of increased magnetic response (23), clusters of pit type anomalies and a number of linear responses and trends. The results suggest that settlement activity may have occurred here but the remains have suffered from plough damage. The interpretation is cautious, however, as natural soil variations and/or modern farming disturbance may have produced these anomalous responses.

Areas 20 and 21

- 5.58 These survey areas investigated one large field that was found to be magnetically very quiet at the time of the scan. Two detailed survey blocks were positioned at random.
- 5.59 The results from Area 20 are dominated by a response from a large ferrous pipe. Apart from

some slight trends in the data that could relate to natural soil variations and/or ploughing, no anomalies of archaeological interest have been identified in the data.

- 5.60 A series of short linear responses and trends have been recorded in Area 21. The archaeological potential of these is thought to be low; they may have been produced by natural soil variations and/or ploughing disturbance.

Areas 22 and 23

- 5.61 Isolated responses and areas of ferrous disturbance were observed during scanning; no clear anomalies of archaeological potential were identified. Two survey areas were positioned to investigate these magnetic variations.
- 5.62 Two well-defined linear anomalies (24 and 25) have been recorded in Area 22 that may be of interest. However, the ferrous nature of the responses suggests that they are the remains of boundaries and/or field drains of recent date. Several magnetically weaker responses are evident in the data but the interpretation of these is uncertain. While an archaeological origin cannot be ruled out, it is possible that past agricultural practices and/or field divisions may have produced these anomalies.
- 5.63 Two linear responses have been recorded in Area 23. When compared to those recorded in Area 22, they can be seen to have different characteristics and are more typical of those produced by archaeological ditches. However, they may still represent relatively recent land divisions that have been all but ploughed out.
- 5.64 A cluster of pit type anomalies (26) has been recorded in the centre of Area 23. These may indicate minor occupation activity but appear to be otherwise isolated. The interpretation is tentative; they could represent modern debris in the topsoil. Magnetically weak trends in the data are thought to be due to ploughing, though an archaeological source cannot be dismissed.

Area 24

- 5.65 Area 24 was positioned over a very prominent rise in topography despite being found to be magnetically quiet at the time of the scan. Ground conditions were poor due to the presence of cabbages at the time of the survey.
- 5.66 Groups of broad magnetically strong responses (27) have been recorded at each end of the survey area. They are typical of those produced by natural soil variations and are not considered to be of archaeological interest. Magnetically weak trends have also been detected but they are likely to be due to agricultural disturbance of the soils.
- 5.67 Two large ferrous anomalies (28) clearly visible in the data have been produced by bird scarring equipment.

Area 25

- 5.68 Area 25 investigated a field that was found to magnetically very noisy at the time of the scan. Some of the disturbance was accounted for by the presence of ferrous brick debris on the surface, possibly used to improve boggy ground conditions. Not all of the anomalies encountered could be confirmed as ferrous in origin and two distinct rises in topography that are present in the field appeared to have archaeological potential.
- 5.69 Ferrous interference can be seen to be present throughout the survey area. Linear responses and trends have been detected but the interpretation is tentative. They are likely to be due to modern ploughing and possibly landscaping.

Area 26

- 5.70 Slight variations in magnetic signal and an isolated archaeological type response were encountered during scanning.
- 5.71 A ferrous response (29) in the northern half of the survey area is due to a small building over a well head. A second ferrous response (30), at the southern end of the survey area, is due to adjacent fences. Some weak linear responses and trends have been identified in the data. They coincide with a slight mound rise in ground level observed during scanning. However, the interpretation is cautious; they may relate to cultivation ridges.

Area 27

- 5.72 The field was being ploughed and harrowed at the time of the scan. The detailed survey block was positioned immediately to the northeast of Site 9, which was a ploughed-out motte and bailey earthwork.
- 5.73 Gradiometer survey has recorded a dense cluster of strong responses (31) in the northern part of the survey area that coincided with a low but well-defined mound. It is possible that this anomalous region represents features associated with the medieval castle. Alternatively, it is possible that the anomaly indicates the remains of a *fulacht fiadh*. It should be noted that a spread of modern debris could produce a similar anomaly, indeed ferrous disturbance was encountered during the scan of the field immediately to the north of the survey area.
- 5.74 Linear responses and trends have been identified in the data but they are magnetically weak and ill-defined. They could have been produced by recent ploughing disturbance.

Areas 28 and 29

- 5.75 The scan of the golf course was complicated due to the presence of trees and shrubs. It is likely that material has been imported onto the site and used in landscaping. Two sample areas were positioned in the vicinity of the ring ditch (Site 10) and the ringfort (Site 10) at Coldwinters.
- 5.76 A noisy dataset recorded in Area 28 has produced no anomalies of archaeological significance.
- 5.77 A series of linear responses and trends have been recorded in Area 29. The linear anomaly (32) aligned approximately east-west coincides with a change in vegetation visible on the ground and may be a modern feature, a boundary or part of the sprinkler system for the golf course. Several other linear responses appear to extend out from this feature and, therefore, are likely to be modern also. However, given the context, an archaeological interpretation cannot be ruled out entirely.

Area 30

- 5.78 This field and the one immediately to the north were found to be magnetically noisy. Surface debris, including iron and brick waste were visible in the soil.
- 5.79 There are some weak trends in the data that may be of archaeological interest. However, they appear to be parallel to the existing field boundaries and are, therefore likely to be due to ploughing.

6. Conclusions

- 6.1 The scan of the proposed road corridor identified a generally quiet level of background magnetic response. Isolated anomalies of archaeological interest were observed in several places, though groups of anomalies indicative of possible settlement were found in only three locations. Recorded survey was directed at investigating these anomalies and parts of the proposed road adjacent to known archaeological sites. In addition, areas that were thought to be topographically significant were also examined, particularly on pasture sites where cropmark evidence was not available.
- 6.2 The gradiometer survey successfully identified four sites that clearly indicate the presence of archaeological remains. Part of a ringfort and associated settlement remains was recorded in Area 3. A major complex of ring ditches, enclosures and ditch systems extending over approximately 3ha has been detected in Area 6. A possible prehistoric ring ditch, enclosure features and probable settlement remains have been identified in Area 8. Enclosures and probable settlement activity, that may be of medieval date, were recorded in Area 10.
- 6.3 In addition, archaeological type responses were encountered in other areas but there is an absence of a clear archaeological pattern. These include ditch type features and suggestions of settlement remains in Areas 4, 19 and 23, and a possible *fulacht fiadh* might have been identified in Area 27.

GSB Prospection

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References:

- Keeley 2001 Environmental Impact Statement, N2 Finglas - Ashbourne Road Scheme. Roughan & O'Sullivan - Maunsell Alliance Consulting Engineers. 2001 Unpublished Report
- GSB 2002 Report on the Geophysical Survey at *N2 Finglas - Ashbourne Road Scheme Report No. 02/14*. GSB Prospection 2001. Unpublished report.

SITE SUMMARY SHEET

2002 / 43 N2 Finglas - Ashbourne Road Scheme Co. Meath

NGR: O 050 540 to O 125 407

Location, topography and geology

The proposed road begins at the existing N2, 1.5km north of Ashbourne, Co. Meath. The road line curves westward crossing the R125 road 2km west of the N2 and then turns eastward to run parallel to the N2 3km south of Ashbourne. A second curve to the west takes place at the R121 road in the townland of Ward. The proposed road crosses the existing N2 at Kilshane and runs parallel, and to the east, to junction 5 of the M50 motorway. The topography is gently undulating pasture and arable fields. The soils comprise varying depths of morainic drift over limestone with shale, sandstone and dolomite.

Archaeology

A desktop study identified a number of sites of interest on or adjacent to the proposed road corridor (Keeley 2001). Possible prehistoric ring ditches have been identified on aerial photographs at Coldwinters (Site 10) and Killegland (Site 49). Early Christian/Medieval ringforts were identified as cropmarks at Coldwinters (Site 11), Fleenstown Little (Site 55) and Newtown Commons (Site 58). Other sites of archaeological interest occur within a wider study area and include both prehistoric and medieval sites. GSB Prospection carried out gradiometer surveys at Killegland, Fleenstown Little and Newtown Commons as part of an initial archaeological assessment. A complex of archaeological type features, including a ring ditch, was detected at Killegland. No anomalies of archaeological interest were recorded at the other two sites (GSB 2002).

Aims of Survey

The aims of the survey were to locate and identify the nature and extent of archaeological remains that may be present along the route of the proposed road corridor. The work forms part of an archaeological assessment being undertaken on behalf of **The National Roads Authority** and **Meath County Council** and was carried out under licence from **Duchas**.

Summary of Results *

The scan of the proposed road corridor identified a generally quiet level of background magnetic response. Few anomalies of archaeological interest were observed and most were found to be isolated in nature. Detailed survey concentrated on these few scanned anomalies, the vicinity of known archaeological sites and areas that were thought to be topographically significant. Thirty survey areas were examined along the proposed road.

The detailed gradiometer survey detected four sites that clearly indicate archaeological remains. Part of an enclosure and possible settlement activity were recorded in Area 3. A large complex of settlement enclosures and ditch systems, extending over approximately 3ha, was recorded in Area 6. A ring ditch and enclosure features were detected in Area 8. Enclosures and probable settlement activity were identified in Area 10. Archaeological type responses were encountered in other areas but no clear archaeological pattern is present in the data and the interpretation is inconclusive. Ditch type features and suggestions of settlement remains may have been recorded in Areas 4, 19 and 23, while a possible *fulacht fiadh* might have been detected in Area 27.

* It is essential that this summary is read in conjunction with the detailed results of the survey.

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