GEOLOGICAL SURVEY OF IRELAND (GSI)

ANNUAL REPORT 2006 - APPENDICES

This information supplements that in the published GSI Annual Report for 2006, copies of which can be obtained from the GSI Customer Centre. Additional information on the work of GSI is available through “Geology Matters”, the regular GSI Newsletter, copies of which can be accessed through www.gsi.ie or by contacting the GSI Customer Centre, Geological Survey of Ireland, Beggars Bush, Haddington Road, Dublin 4. Phone (01) 6782000, Lo-call 1890 44 9900, Fax (01) 6681782, Email gsisales@gsi.ie.
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1. GSI COMMITTEES

**GSI Consultative Committee** consists of representatives of our customer and stakeholder groups, as well as experts in fields of GSI operations. During 2006 it considered recent work progress in GSI and business plans for 2007. Mr. Kevin Forde, Mr. Peter Lydon, Mr. Ciarán ÓhÓbáin and Mr. Pat Ryan joined the committee and Ms. Joan Brownlee, Mr. Michael Daly and Mr. Andrew Caldicott resigned during 2006. The membership, in addition to GSI staff, at the end of 2006 was as follows:

Mr. David Ball, Hydrogeologist  
Mr. Brian Byrne, Arup and Partners  
Mr. Viv Byrne, CSA Group Ltd  
Ms. Petra Coffey, Wicklow  
Dr. Catherine Coxon, Trinity College Dublin  
Mr. Pat Duggan, Department of the Environment, Heritage and Local Government  
Mr. Garth Earls, Geological Survey of Northern Ireland  
Mr. Kevin Forde, Department of the Environment, Heritage and Local Government  
Ms. Roisin Goodman, CSA Group Ltd  
Mr. Eamonn Grennan, Sligo Institute of Technology  
Dr. Bettie Higgs, NUI Cork  
Ms. Margaret Keegan, Institute of Geologists of Ireland  
Mr. Peter Lydon, Association of Geography Teachers in Ireland  
Mr. Micheál MacCarthaigh, Environmental Protection Agency  
Mr. Ciarán ÓhÓbáin, Department of Communications, Marine and Natural Resources  
Prof. Peter Readman, Dublin Institute for Advanced Studies  
Mr. Vincent Reynolds, Cavan Enterprise Board  
Mr. Jim Ryan, Department of the Environment, Heritage and Local Government  
Mr. Pat Ryan, Department of Communications, Marine and Natural Resources  
Mr. Iain Williams, Readymix plc

The following GSI staff serve on the Committee:

Dr. Peadar McArdle Chairperson  
Mr. Seamus Nevin Secretary  
Dr. Pat O’Connor  
Dr. Eibhlin Doyle  
Dr. John Morris  
Mr. Clive Murray  
Mr. John O’Donoghue  
Mr. Koen Verbruggen
The National Landslides Working Group was established in 2004 to collate information and examine the causes of landslides throughout the island of Ireland. The membership of this working group, which is multidisciplinary, is as follows:

Dr Eric Farrell – Department of Civil Engineering, Trinity College Dublin
Dr Mike Long – Department of Civil Engineering, University College Dublin
Dr Robbie Meehan – Consultant, Dublin
Ms Reamonn Fealy - Teasgasc, Kinsealy, County Dublin
Mr Tiernan Henry – Department of Earth and Ocean Sciences, UCD
Ms Aileen Doyle – Planning Division, Department of the Environment, Heritage and Local Government
Mr Ken Gavin – Geotechnical Society of Ireland, Institute of Engineers of Ireland
Mr Terry Johnston – Geological Survey of Northern Ireland, Belfast

The following GSI staff serve on the Working Group:
Mr. Koen Verbruggen Chairperson
Dr. Ronnie Creighton Secretary
Ms. Charise McKeon
Mr. Xavier Pellicer

International Year of Planet Earth – Irish National Committee was established in 2006 to coordinate a programme of events to mark the International Year of Planet Earth 2008. Managed by GSI with the support of the Royal Irish Academy, this is an All-Ireland forum whose membership at the end of 2006 was:

Prof. Alan Jones, Dublin Institute for Advanced Studies
Prof Anne Buttimer, International Geographical Union, Royal Irish Academy (RIA), Senior Adviser
Dr. Aodhagán Ó’Rodaighe, National Committee for Climate Change
Dr. Bettie Higgs, Department of Geology, UCD
Dr. Catherine Dalton, Irish Quaternary Association, National Committee for Geography
Mr. David Ball, International Association of Hydrogeologists (Irish Branch)
Dr. Deirdre Lewis, Institute of Geologists of Ireland, Geosciences Committee (RIA)
Dr. Tony Bazley, ES2K
Dr. Ian Sanders, Department of Geology, Trinity College Dublin
Mr. John Evans, Marine Institute
Mr. John O’Sullivan, Irish Offshore Operators Association, Geophysical Association of Ireland
Ms. Marie Cowan, ES2k, Geological Survey of Northern Ireland
Dr. Matthew Parkes, Institute of Geologists of Ireland, National Museum of Ireland, RIA
Mr. Garth Earls, Geological Survey of Northern Ireland
Ms. Sonja Masterson, RIA, International Association of Hydrogeologists (Irish Branch)
Ms. Susan Pyne, Irish Geological Association
Dr. Vincent Gallagher, Irish Association for Economic Geology
Ms. Willemien Phelan, Irish Meteorological Society, Met Eireann, RIA

The following GSI staff serve on the committee:
Dr. Peadar McArdle  Chairperson; Senior Adviser
Ms. Mary Carter  Secretary; International Union of Geological Sciences
Mr. Enda Gallagher
Ms. Sophie Preteseille  RIA, Copper Coast Geopark

Irish National Committee for IUGS and IGCP is managed by GSI with the support of the Royal Irish Academy. Its members at the end of 2006 were:

Dr. Peadar McArdle  Chairperson
Ms. Mary Carter   Secretary
Dr. Julian Menuge  Geosciences Committee, Royal Irish Academy

INFOMAR Project Board is the supervisory board for the INFOMAR Project, jointly managed by GSI and the Marine Institute. Its members at the end of 2006 were:

Mr. Martin Brennan  Chairperson, Department of Communications, Marine and Natural Resources (DCMNR)
Mr. Peter Croker  Petroleum Affairs Division, DCMNR
Mr. John Evans  The Marine Institute
Dr. Peter Heffernan  The Marine Institute
Dr. Peadar McArdle  Geological Survey of Ireland
Mr. Stephen O’Connor  DCMNR
Mr. Koen Verbruggen  Geological Survey of Ireland
2. NATIONAL AND INTERNATIONAL REPRESENTATION

**Eurogeosurveys**
P. McArdle: Meeting of Directors: Romania – September.
P.O’Connor: Meeting of Contact Points: Brussels – March, Barcelona - June.
P. McArdle: Eurogeosurveys General Assembly: Brussels- February
P. O’Connor: Soil Protection Expert Group
G. Wright: Groundwater Topic Network Group
P. O’Connor: Natural Resources Expert Group
P. O’Connor: Geochemistry Expert Group: Brussels – September
M.J. Carter: e-content and FP7, Brussels, September

**European Geoparks Network**
J.H. Morris:

**European Science Foundation, Life, Earth and Environmental Sciences Committee**
P. McArdle: Irish Representative: Iceland – April

**EU WFD Groundwater Working Group 2C**
D. Daly: Member - Brussels

**Geoscience Information Consortium**
M.Carter: Warsaw, May.

**GEO High Level Group**

**Global Monitoring for Environment and Security (GMES)**
P. O’Connor attended Advisory Council: Brussels - May
K. Verbruggen: National Contact Point, Terrafirma Project, Frascati.

**International Hydrological Programme (Irish National Committee)**
D. Daly: Member

**International Year of Planet Earth**
P. McArdle: Senior Adviser

**Integrated Ocean Drilling Program – ECORD Council**
K. Verbruggen and X. Monteys (Management)
B. McConnell and D. Hardy (Technical)

**North East Atlantic and Mediterranean Tsunami Warning System (NEAMTWS) Coordination Group (UNESCO)**
B. McConnell: Irish delegate, Nice, France.
ProGEO: The European Association for the Conservation of the Geological Heritage
J.H. Morris: Irish Representative.

Royal Irish Academy – National Committees:
P. McArdle: Geosciences.
W.P. Warren: Geography
P. McArdle: John Jackson Memorial Lecture Committee.

UK Groundwater Forum
D. Daly: Observer member.

UK-Ireland Groundwater WFD Task Team
D. Daly: Member: (Belfast, Birmingham)
3. PARTICIPATION IN WORKING GROUPS AND SOCIETIES

**Applied Agricultural Meteorology Working Group (AGMET)**
G.R. Wright: Member.

**Bréifne Mountains Co. Ltd.**
P. O’Connor: Director.

**Coillte Advisory Panel, Woodland habitat on limestone pavement.**
S. Gatley: Member.

**Copper Coast European Geopark**
J.H. Morris: Geological Representative to Co-ordination Committee.
France – March.

**Department of Agriculture and Food - Technical Working Group on earth-lined slurry / effluent stores, out-wintering pads and constructed wetlands**
D. Daly: Member.

**Environmental Protection Agency**
D. Daly and N. Hunter Williams: Members- Steering Committee on Groundwater Recharge and Vulnerability Project.
G.R. Wright: Member- Steering Committee for Project on Characterization of Unpolluted Groundwater.
D. Daly: Member- Steering Group for Project on Effects of Agricultural Practices on Nitrate Leaching.

**Europamines - Project Development Meetings and Site Visits:**
J.H. Morris:

**European Federation of Geologists – Geological Heritage Working Group**
J.H. Morris

**EU Water Framework Directive (WFD)**
Inter-Departmental Co-ordination Group
D. Daly (Convenor), G.R. Wright, C. Kelly, and N. Hunter-Williams.

Working Group on Groundwater (and sub-committees)
River Basin District Management Project Steering Group:
G.R. Wright, N. Hunter Williams: South-Eastern.
P. O’Connor, D. Daly: Shannon.
G.R. Wright: Eastern.
G.R. Wright, C. Kelly: South-Western.
D. Daly, C. Kelly: Western.
Working Group on Groundwater Protection Responses
D. Daly, G.R. Wright and C. Kelly: Members

Programme of Measures Working Group: D. Daly
Monitoring Working Group: D. Daly and N. Hunter Williams
Steering Group for SNIFTER Projects: D. Daly and N. Hunter Williams (Birmingham, Lancaster)

D. Daly: Member Technical Co-ordination Group
D. Daly: Member: Project Steering Groups. Brussels
D. Daly: Bridge Project, Madrid.

**Exploration and Mining Division (EMD) – GSI Liaison Committee**
P. McArdle, G. Stanley, G. Wright and N. Hunter Williams.

**Fingal Heritage Forum**
S. Gatley: Member

**FUNMIG Project (Fundamental migration behaviour of radionuclides in the environment).**
Associated Partner, P. O’Connor, Stockholm, November.

**Geological Journal Editorial Board**
B. McConnell: Member

**Geotechnical Society of Ireland (Institute of Engineers of Ireland)**
J.R. Creighton: Committee Member

**Hydrogeology Journal**
D. Daly: Associate Editor

**Hydrographic Society – Irish Branch**
S. Cullen: Chairperson

**IGOS Geohazards Theme**
K. Verbruggen: Member.

**Institute of Geologists of Ireland**
G.R. Wright: Board Member and Honorary Secretary
D. Daly, G.R. Wright, Working Group Members.
E. Doyle, GSI Liaison.
S. Gatley, Board Member.

**International Association of Hydrogeologists – Irish Group**
C. Kelly, T. Hunter-Williams and S. Masterson: Committee Members:
Irish Association for Economic Geology
K. Verbruggen: Past President

Irish Journal of Earth Sciences
J.H. Morris: Editorial Board Member.

Maritime Institute of Ireland
S. Cullen: Treasurer

Mining Heritage Trust of Ireland Ltd.
K. Verbruggen: Web-Manager.
J.H. Morris: Conservation and Inventory Co-coordinator

North Atlantic Minerals Symposium – Organising Committee
G. Stanley: Co-Chair

Society for Geology Applied to Mineral Deposits (SGA)
Local Organising Committee for SGA 2007 in Dublin: G. Stanley, Chairperson and E. Doyle, Treasurer.

Technical Advisory Group on Corrib Project (for the Minister for Communications, Marine and Natural Resources)
K. Verbruggen: Member

Silvermines Inter-Agency Advisory Committee
P. O’Connor: Member

Waterford City Council Natural Heritage Forum
S. Gatley: Member.
4. RESEARCH BASED ON GSI DATABASES

The following is a list of research topics based on GSI databases and the third level institutes where each was or is being undertaken. Some topics comprise more than one project.

Fracture systems and groundwater yields, post-Silurian (Trinity College Dublin)
Geophysical study of landslides, County Mayo (University of Leeds)
Lowland karst of Roscommon (Trinity College Dublin)
Highly and moderately permeable subsoils (Trinity College Dublin)
Geology and petroglyphs (University College Dublin)
Holocene sediment transport, southeast Ireland (University College Dublin)
Flood risk mapping, Dublin-Wicklow region (University of London)
Web-based geochemical and landslide data (NUI Galway)
Geohazards in Porcupine Seabight (NUI Galway)
River Shannon processes and geoarchaeology (NUI Galway)
Deep ocean habitat mapping with ROV (NUI Galway)
Grid-enabled data mining of INSS (NUI Galway)
Single beam acoustics in habitat mapping (NUI Galway)
Seabed substrate characterisation (NUI Galway)
Tenix waveform analysis (NUI Galway)
Neural networks and seabed backscatter (NUI Galway)
Northeast Atlantic marine system modelling (NUI Galway)
Slope processes in the Rockall Trough (University College Dublin)
Accuracy of tidal prediction (Dublin Institute of Technology)
Quaternary of Donegal Bay (Trinity College Dublin)
Gas hydrate systems, offshore Ireland (University College Dublin)
Cenozoic basin margins, Porcupine and Rockall (University College Dublin)
Quaternary of Clew Bay (Queen’s University of Belfast)
Base metal geochemical soil levels, County Meath (Camborne School of Mines)
Use of digital laser scanning in Dublin Port area (Engineering – University College Dublin)
Site stability assessment using Terrafirma data (Engineering – University College Dublin)
Slope stability analysis, County Wicklow (Engineering – Trinity College Dublin)
5. GSI PUBLICATIONS

Creighton, R. (Ed.) 2006


McConnell, B. and Gatley, S. 2006
Bedrock Geology of Ireland, 1:500,000 scale map. Geological Survey of Ireland.

Scanlon, R. and Sleeman, A.G. 2006
Sheet 77 Wexford. 1:50,000 scale GIS Bedrock Geology dataset and paper map, with accompanying report (pdf format) by A.G. Sleeman, 43 pages.

Stanley, G. (Ed.). 2006
Geology Matters. The GSI Newsletter. Issues Nos. 4 and 5. Include articles by GSI staff members.
6. SCIENTIFIC PUBLICATIONS


7. CONFERENCE PAPERS


8. GENERAL ARTICLES


9. PRESENTATIONS

Carter, M.J. Federated Metadata Portal. IAMG 06. International Association of Mathematical Geology, Liege, Belgium, September.

Creighton, R. Ireland-a glaciated Landscape. Presentation at seminar, IEI Geotechnical Society.

Creighton, R., Pellicer, X. and Mozo, B. Quaternary geology and subsurface geology of Dublin. Presentation to visiting Swedish consultants, Dublin, September.

Daly, D. Decision-making on location of on-site wastewater treatment systems. Difficult sites: difficult decisions. Presentation to Public Planning Seminar, Galway County Council, Galway.

Donovan, A. Presentation on seabed databases. GIS inshore mapping forum (third meeting), Dublin, March.

Donovan, A. Shipborne and LIDAR acquisition efforts by INFOMAR in 2006. GIS inshore mapping forum (fourth meeting), Dublin, September.


Doyle, E. Acquisition of airborne geophysical data. Launch of airborne survey, Weston Airport, Dublin, June.

Doyle, E. Presentation on Irish National Seabed Survey and INFOMAR. EMSAAG Conference.

Doyle, E. Offshore Irish Seabed Survey. Seminar on Geophysical Exploration of Ireland’s natural resources. Geophysical Association of Ireland, Dublin, May.

Hardy, D. Presentation on current geological research being carried out at Trinity College Dublin. Irish Geological Research Meeting, Cork, February.


McConnell, B. Half-day course on geology for primary school teachers. Castlebar Education Centre, County Mayo, July.


McKeon, C. Presentation on geoscience databases to Landscape Archaeology students of NUI Galway, Dublin, January.

McKeon, C. Presentation on geoscience databases to Tourism and Marketing students of Dublin Institute of Technology, Dublin, February.

Monteys, X. Integration of IODP 307 and the Irish National Seabed Survey datasets. Presentation at Integrated Ocean Drilling Program Conference, Yokohama, Japan, August.


Morris, J. Cherishing Ireland’s mining heritage. Presentation to ES2k, September.


Pellicer, X. Landslide susceptibility mapping. Fifth European Congress on Regional Geoscientific Cartography and Information Systems, Barcelona, Spain, June.

Pellicer, X. Landslide susceptibility mapping (Poster). European Geophysical Union Conference, Vienna, Austria.


Sleeman, A.G., McConnell, B.J. and Gatley, S.
In-service training course for geography teachers, Blackrock Education Centre, Dublin, and field trip to Killiney, April-May.


Stanley, G. The need for aggregate potential mapping. The Need for Aggregates Seminar, Irish Concrete Federation, Kinnegad, October.

Stanley, G. Presentation on Irelithos project. Office of Public Works, Dublin, November.

Stanley, G. Pilot airborne surveys – methods and site selection. GSI Seminar, Dublin, December.


Verbruggen, K. Careers in Geoscience. NUI Galway Science and Careers Fair, Galway, March.


Warren, W.P. Serendipity in the serious pursuit of the trivial: the evolution of the concept of glaciation in Ireland. Lecture to students at St. Patrick’s Training College, Drumcondra, Dublin.
10. FIELD TRIPS LED BY STAFF

Bolton, J.  The unique heritage of Dalkey Islands.  National Heritage Week, August.


Daly, D.  Field Trip to Cadamstown, County Offaly, with the Stillorgan – Kilmacud Historical Society, May.


McArdle, P.  Field visit to the Blackstairs, County Carlow.  Irish Geology Week, April.

McArdle, P.  Some silent place – a walk in the Blackstairs.  Irish Heritage Week, September.

McKeon, C.  Field trip to Killiney Beach, County Dublin, for second level students of Scoil Eoin, Ballybrack, June.

Preteseille, S.  The Copper Coast European Geopark, Summer walks during 2006.  A series of evening walks along coastal County Waterford during July and August.

Stanley, G.  The Avoca Remediation Project.  Presentation and field trip for candidate consultants, November.

Verbruggen, K.  A geological walk on Bray Head.  National Heritage Week, September.

Verbruggen, K.  A geological walk on Bray Head.  Irish Geology Week, April.
11. EXHIBITIONS

Environment Ireland Conference, Dublin, September. Corporate stand on work of GSI.


Prospectors and Developers Association of Canada Convention, Toronto, March. Joint stand with Exploration and Mining Division (D/CMNR) and the Geological Survey of Northern Ireland.

What on Earth? exhibition, Ashbourne Public Library, County Meath, April – May, and subsequently at Beggars Bush.

World Ocean Day, inaugural exhibition at the new premises of the Marine Institute, Galway, June.
12. OVERSEAS MEETINGS ATTENDED

Aquifer systems management. Conference organised by Bureau de Recherché Geologiques et Minieres and the International Association of Hydrogeologists, Dijon, France, May-June, C. Kelly.

Carboniferous Conference: Platform to Basin (CCC-2006), Cologne University, Germany, September, A.G. Sleeman

Engineering for Tomorrow’s Cities. International Association for Engineering Geology World Congress, Nottingham, September, R. Creighton.

European Geophysical Union Conference, Vienna, Austria, April, K. Verbruggen.

Fifth European Congress on Regional Geoscientific Cartography and Information Systems, Barcelona, Spain, June, P. O’Connor.


Integrated Ocean Drilling Program Conference, Yokohama, Japan, August. X. Monteys.


Medical Geology Conference, Stockholm, Sweden, May, P. O’Connor.

UK – OUG, Birmingham, M. O’Dwyer, J. Trench.

13. STAFF CHANGES

The following staff joined or returned to GSI in 2006:
Derek Collins, Frank Fagan, Liam Fahy, Triona Giblin, Michael Kennedy, Sarah Lee, Seamus Nevin, Fionnuala Ni Mhairtín, Eamon O Loughlin, Michael O’Mahony, Edel O’Regan, Ronan O’Toole, Fiona Wolfe.

The following staff left the GSI in 2006:
# 14. GSI ORGANISATION CHART

(the Geological Survey of Ireland (GSI) is a division of the Department of Communications, Marine and Natural Resources)

<table>
<thead>
<tr>
<th><strong>Senior Management</strong></th>
<th><strong>Director</strong></th>
<th><strong>GSI ORGANISATION CHART</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Peadar McArdle</td>
<td>Assistant Director, Finance, Support Services</td>
<td></td>
</tr>
<tr>
<td>Pat O’Connor</td>
<td>Assistant Principal, Administrative Services</td>
<td></td>
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<tr>
<td>John O’Donoghue</td>
<td>Principal Geologist</td>
<td></td>
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<tr>
<td>John Morris</td>
<td>Principal Geologist</td>
<td></td>
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<tr>
<td>Eibhlin Doyle</td>
<td>Principal Geologist</td>
<td></td>
</tr>
<tr>
<td>Koen Verbruggen</td>
<td>Chief Technologist</td>
<td></td>
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<tr>
<td>Clive Murray</td>
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<thead>
<tr>
<th><strong>Bedrock</strong></th>
<th><strong>Groundwater</strong></th>
<th><strong>Marine Geophysics</strong></th>
</tr>
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<tbody>
<tr>
<td>Andy Sleeman</td>
<td>Donal Daly</td>
<td>Deepak Inamdar</td>
</tr>
<tr>
<td>Brian McConnell</td>
<td>Geoff Wright</td>
<td>Archie Donovan</td>
</tr>
<tr>
<td>Sarah Gatley</td>
<td>Monica Lee</td>
<td>Irene Hogan (part—time)</td>
</tr>
<tr>
<td>Markus Pracht</td>
<td>Taly Hunter Williams</td>
<td>Seán Cullen</td>
</tr>
<tr>
<td>Ray Scanlon</td>
<td>Coran Kelly</td>
<td>Xavier Monteys</td>
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<td></td>
<td>Caomhie Hickey</td>
<td>Enda Gallagher</td>
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<td></td>
<td>Sonja Masterson</td>
<td>David Hardy</td>
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<td></td>
<td>Eamonn O’Loughlin</td>
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<th><strong>Cartography</strong></th>
<th><strong>Minerals</strong></th>
<th><strong>Information Management</strong></th>
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<tr>
<td>Padraig Connaughton</td>
<td>Gerry Stanley</td>
<td>Charise McKeon</td>
</tr>
<tr>
<td>John Dooley</td>
<td>Irene Hogan</td>
<td>Silvia Caloca</td>
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<tr>
<td>Marie Marini</td>
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<tr>
<td>Raymond Weafer</td>
<td>Information Technology</td>
<td>Quaternary &amp; Geotechnical</td>
</tr>
<tr>
<td>Eddie McMonagle</td>
<td>Mary Carter</td>
<td>Willie Warren</td>
</tr>
<tr>
<td>Eddie Hand</td>
<td>Joe Carey</td>
<td>Ronnie Creighton</td>
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<td>Ann Scanlon</td>
<td>James Trench</td>
<td>John Butler</td>
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<td>Gerry French</td>
<td>Mairéad O’Dwyer</td>
<td>Xavier Pellicer</td>
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<td>Michael Kinsella</td>
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<td>Beatriz Mozo</td>
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<td>Michael Sheehy</td>
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<th><strong>Central Administration</strong></th>
<th><strong>Bréifne Project</strong></th>
<th><strong>Copper Coast Project</strong></th>
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<tr>
<td>Ann Monaghan</td>
<td>Vincent Gallagher</td>
<td>Sophie Pretesville</td>
</tr>
<tr>
<td>Philip Earley</td>
<td>Graíinne O’Shea</td>
<td>Margaret Cosgrave</td>
</tr>
<tr>
<td>Paula Gormley</td>
<td>Schalk Van Lill</td>
<td></td>
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<tr>
<td>Margaret Nolan</td>
<td>Chris McWilliams</td>
<td>Irish Geological Heritage/Archive</td>
</tr>
<tr>
<td>Caroline O’Shea</td>
<td></td>
<td>Vacancy</td>
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<tr>
<td>Bernadette Mockler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gerry Wright</td>
<td>Drilling Unit</td>
<td>Central Technical Services</td>
</tr>
<tr>
<td></td>
<td>Kevin Crilly</td>
<td>Tom McIntyre</td>
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<td></td>
<td>Dick O’Brien</td>
<td>Chris McDonnell</td>
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<thead>
<tr>
<th><strong>Services Officers</strong></th>
<th><strong>Central Technical Services</strong></th>
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<tbody>
<tr>
<td>Jimmy Kennedy</td>
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<tr>
<td>Peter Eccles</td>
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<tr>
<td>Joseph Comerford</td>
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Section Heads in **bold**.
Contract Staff in *italics*. 
15. SOME STATISTICS

(a) GSI Coverage in Print Media during 2006 (Column-cm)

<table>
<thead>
<tr>
<th>Theme</th>
<th>National</th>
<th>Regional</th>
<th>Trade</th>
<th>Total</th>
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<tr>
<td>Seabed</td>
<td>532</td>
<td>0</td>
<td>354</td>
<td>886</td>
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<tr>
<td>Hazards</td>
<td>923</td>
<td>0</td>
<td>78</td>
<td>1,001</td>
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<tr>
<td>Airborne Surveys</td>
<td>121</td>
<td>152</td>
<td>0</td>
<td>273</td>
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<tr>
<td>Heritage</td>
<td>97</td>
<td>0</td>
<td>216</td>
<td>313</td>
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<tr>
<td>Groundwater</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>General</td>
<td>156</td>
<td>0</td>
<td>123</td>
<td>279</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,829</strong></td>
<td><strong>152</strong></td>
<td><strong>771</strong></td>
<td><strong>2,752</strong></td>
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(b) GSI Website Activity: Visitor Numbers

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gsi.ie</td>
<td>401,159</td>
<td>225,004</td>
<td>78%</td>
</tr>
<tr>
<td>Web_Mapping</td>
<td>40,727</td>
<td>32,868</td>
<td>24%</td>
</tr>
<tr>
<td>Gsiseabed.ie</td>
<td>30,838</td>
<td>28,811</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>472,724</strong></td>
<td><strong>286,683</strong></td>
<td><strong>65%</strong></td>
</tr>
</tbody>
</table>

(c) The distribution of queries from the public in 2005 and 2006

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Centre</td>
<td>1,192</td>
<td>1,524</td>
</tr>
<tr>
<td>Groundwater</td>
<td>1,600</td>
<td>1,543</td>
</tr>
<tr>
<td>Minerals</td>
<td>120</td>
<td>158</td>
</tr>
<tr>
<td>Heritage</td>
<td>204</td>
<td>251</td>
</tr>
<tr>
<td>Seabed</td>
<td>165</td>
<td>253</td>
</tr>
<tr>
<td>Quaternary</td>
<td>134</td>
<td>175</td>
</tr>
<tr>
<td>Geotechnical</td>
<td>138</td>
<td>143</td>
</tr>
<tr>
<td>Information Management</td>
<td>98</td>
<td>122</td>
</tr>
<tr>
<td>Bedrock</td>
<td>125</td>
<td>53</td>
</tr>
<tr>
<td>Technical</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,794</strong></td>
<td><strong>4,240</strong></td>
</tr>
</tbody>
</table>