

GMES

TERRAFIRMA

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Key User Segment Profiles

U2

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Christine King, Steven Hosford, Luc Closset
BRGM

Contributors to Dossier

Marc Rudrum, Arup

Martin Culshaw, BGS

Giorgio Franchioni, ENEL.Hydro

Reviewed by: Project Manager

Ren Capes/  /12/10/2004

Approved by: Project Contract Officer

David Morten/ /12/10/2004

Also reviewed by:

STRATEGY GROUP MEMBER ENDORSEMENT

I, the undersigned, confirm that I have read and endorse this dossier.

Strategy group member for policy

Name.....**Signature**.....

Strategy group member for science

Name.....**Signature**.....

Strategy group member for users

Name.....**Signature**.....

EXECUTIVE SUMMARY

This dossier entitled “U2 - Key User Segment Profiles” provides a detailed description of the Key User Segments that are defined in dossier U1: Global User Needs Directory and listed below:

1. Public Sector
2. Structural Engineering
3. Extraction Industry

The segment descriptions provided here take the form of a list of information gathered for a significant group of organisations within each of the key user segments. This description supplements the generic segment information provided in dossier U1 to provide an all-encompassing description of *Terrafirma* users. While this list is extensive for countries where partner organisations within *Terrafirma* exist and have contributed fully, the list is not exhaustive for certain other European countries.

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1 INTRODUCTION

1.1 Objective

As part of the *Terrafirma* project, the global set of users likely to benefit from the proposed service portfolio is described. Together with the Global User Needs Dossier (U1) and the Core User Needs Dossier (U5), this document plays a major role in this description. The principal objective of this document is to provide a complete description of each of the *key user segments* as identified in the Global User Needs Dossier. This is done through the provision of as complete a list as possible of users belonging to each segment. While the project definition (Statement of Work) requests an ambitious set of parameters to be provided for each organisation included in the segment descriptions, this has been difficult to achieve for a number of reasons. For instance, information is frequently very difficult to obtain, especially specific financial information such as the annual budget and number of staff involved in work specifically associated to ground movement issues within a company. However, often the issues raised by such parameters have largely been addressed in a generic way in the Global User Needs dossier.

While the key user segment descriptions provided here are extensive for countries where partner organisations within *Terrafirma* exist and have contributed fully, the list is not exhaustive for certain other European countries.

1.2 Document Structure

The description of the key user segments is presented in two steps. In chapter two the key user segments that have been defined in document U1 are listed and described. Chapter three provides a detailed description of a set of characteristic users for each key user segment followed by a complete list of end users for this segment.

1.3 Terminology and Acronyms

Global User Base	This is the complete set of all potential users (in the world) for a given set of services. It is made up of a collection of different user-segments
End User Segment	A user-segment is a collection of end-user organisations that have something in common. (<i>eg; all needing same type of service; all from same geographic region; all reporting on the same environmental policy; all unlikely to use the service; etc..</i>)
Key User Segment	An End User Segment that has been identified as being of high importance and likely to constitute with the other Key User Segments at least 70% of the users likely to benefit from the service portfolio in the next five years.
Infrastructure	In the context of <i>Terrafirma</i> , this term is used to signify the complete range of man-made structures or interventions.

Acronyms

SP	Service Portfolio
CUG	Core User Group consisting of: Arup, BGS, BRGM, Enel.Hydro, TNO
GUB	Global User Base

2 DEFINITION OF THE KEY USER SEGMENTS

In the Global User Needs (U1) Dossier the Global User Base is described by decomposing it into a set of User Segments. Having described each identified user segment, a set of criteria are defined and used to determine the *key* user segments. These will subsequently be used to facilitate the user federation and promotion tasks. The following **key segments** have been identified as together providing at least seventy percent of the users likely to benefit from the service portfolio in the next five years.

Segments are listed in order of importance:

1. Public Sector
2. Structural Engineering
3. Extraction Industry

More detail regarding the definition of these key user segments can be obtained in the Global User Needs Dossier (U1). A brief description of each key user segment follows.

2.1 Public Sector

This segment consists of all institutional end users of the service portfolio. This will include specific technical committees who provide recommendations to legislative bodies. These committees are formed by local authorities (planners, building control, environmental health, legal), environmental regulators (e.g. Environment Agency), conservation regulators (e.g. English Nature, Historic Scotland), nuclear installations inspectors, civil defence planners/authorities. Examples of policy bodies are:

1. Planning policy: Office of the Deputy Prime Minister / Scottish Executive / Welsh Assembly [UK]
2. Environmental policy: Ministero dell'Ambiente [I], Ministère de l'Ecologie et du Développement Durable [F], Department for Environment, Food and Rural Affairs [UK], and similar ministries in other European member states
3. Regional planning and economic policy: ARPA's Regional Agencies for Environment protections and Regional Development Agencies [UK];. and the similar in other European member states
Cities are a specific case of a type of public body that intervenes in planning and economic policy.
4. Technical regulations related to structural safety: Consiglio Superiore dei Lavori Pubblici [I], High Council of the Public Works Ministry [UK], Ministry of Equipment and associated services in France (CETE, LCPC, CSTB), Geological Surveys and similar organisations in other European member states
5. Transport policy: Ministry of Industry, and specific associated services in UK Department of Transport, GEODERIS and INERIS [F], and similar organisations in other European member states
6. National Geological Surveys e.g. BGS, BRGM, TNO :This group is frequently solicited to contribute technical input and recommendations to legislative bodies. They also

play a significant role in the Risk Assessment user segment. They constitute a large part of the Core User Group and will be considered in detail in the Core User Needs Dossier (T1.U5).

These institutional organisations set legal requirements on information in order to protect citizens.

- **Typical end user:** Dutch State Supervision of Mines (SODM) [NL]

The Dutch State Supervision of Mines is a regulatory body in the field of raw material mining. Dutch law regulates the measurement over specific areas of ground movements as a result of mining in two forms: ground movement information of fixed benchmarks in a spatial grid as a function of time and information on sudden ground movements (earth tremors) as a result of the mining of raw materials. The first information requirement is currently satisfied by levelling surveys performed on behalf of the mining companies by specialised survey companies. Reporting to the Dutch authorities is done by means of fixed electronic and paper data formats. The second requirement is addressed with a network of downhole seismometers operating in parallel to the national network of surface seismometers and accelerometers.

2.2 Structural Engineering

This group includes engineers concerned with the structural stability of infrastructure from a number of different domains of application:

- civil and structural engineering consultants
- agencies and companies responsible for plant infrastructure (e.g. electricity generation) or transportation networks (e.g. pipelines, cables, sewers etc)
- owners and operators of transport infrastructure

Their major need in conjunction with *Terrafirma* products are in relation to the construction and maintenance of property assets either as owners or delegate services.

2.2.1 Builders and constructors including engineering consultants

This group covers the market sector of urban underground works. It includes civil and structural engineering consultants, civil, structural engineering and building contractors, surveyors, architects but also private or public engineering consultants and specific public services (e.g. CTSB in France). Among builders and constructors three distinct activities can be distinguished:

- **Main Contractors** undertaking the initial construction of a facility.
- **Specialist Contractors** (such as grouting contractors, survey companies etc.) are involved with only part of the construction such as controlling the rate of tunnelling and either providing data for decisions to be made, or modifying construction methods to suit the feedback from the monitoring.
- **Maintenance Contractors / Asset Management Contractors** are involved with the ongoing maintenance and / or operation of an existing infrastructure facility

- **Typical end user:** SPIE Batignolles [FR]

With a turnover of approximately €1bn and around 6,000 employees, SPIE Batignolles are involved in many high profile projects ranging from industrial, office or housing complexes to underground or major infrastructure projects. Spie Batignolles carry out all three of the activities undertaken by contractors and thus have diverse ground movement information needs. These range from site studies to assist in the choice of site for development to maintenance of the facility (e.g. a motorway) during a period of operation such as a concession period.

2.2.2 Utility companies

This group includes any and all agencies and companies responsible for transportation networks or infrastructure (pipelines, cables, sewers etc) e.g: Transco, National Grid, Water and sewage companies (pipelines), gas companies (pipelines and plant), oil companies (pipelines and plant), electricity companies (cables, pylons, poles and sites including nuclear) such as EDF in France or ENEL in Italy, Telecommunication companies (cables, poles and masts).

- **Typical end user:** EDF [F]

With a turnover of €48.4bn and approximately 110,000 employees, Electricité de France (EDF) controls 95% of the French market and owns electricity companies in Germany, UK and Italy. While there can be specific needs in geothermal and hydroelectric power production, EDF can be considered as a large property owner with specific monitoring requirements for industrial plants and distribution infrastructure. They therefore require ground movement information for 1) the design phase of new plants, 2) verification of the safety of this infrastructure 3) monitoring of distribution infrastructure such as pylons. Typically ground movement measurements are required over areas going from 4-6km² for plant monitoring to 20-50km² for the localisation of new infrastructure sites. Specific corridors of land are also of interest for surveillance of distribution infrastructure. Monitoring will be generally either continuous, for critical elements such as dams, or periodic for plant control and verification reasons and distribution lifelines. Current ground movement monitoring needs are filled principally by electronic and manual measurement instruments, with GPS system use becoming more widespread.

2.2.3 Transport providers

This segment consists of owners and operators of transport infrastructure. It includes railway companies and regulators (e.g. Network Rail[UK], SNCF[F], NMBS/SNCB[B]), road management organisations (e.g. Highways Agency[UK], local authorities, Cofiroute[F], Ministry of Transport, Public Works and Water Management[NL]) and airport management companies (BAA[UK], Aéroport de Paris[F]).

- **Typical end user:** Highways Agency [UK]

The Highways Agency is an Executive Agency of the UK Department for Transport with a budget of approximately £5bn and around 1,600 employees. They work closely with other transport operators and with local authorities to manage, maintain and improve the network of trunk roads and motorways in the UK. Their use of data products, similar to all major transport infrastructure operators, potentially would be in two specific areas: monitoring of the existing infrastructure and selection of future routes for schemes. Monitoring of roads

requires millimetric ground movement accuracy over well defined corridors of land. In the case of remote sensing imagery, this involves coverage of substantial areas. Detected movements indicate degradation in the quality of the network and would initiate maintenance. For this, "real-time" monitoring is preferred, however a revisit time of the order of days or weeks would be useful. For new routes, information on movement history is required for the engineering design and mitigation of the possible consequences of ground movement. Currently standard levelling techniques are used, with the Highways Agency developing the use of airborne LIDAR (laser scanning) for monitoring.

2.3 Extraction Industry

This segment covers organisations involved in the monitoring of sites under exploration or exploitation for mining & minerals and all the world's oil and gas producing companies both private and state owned. The later tend to be huge multinational companies with substantial social and political influence.. This segment includes private or public companies such as ENCI [NL], Charbonnages de France [F], DTM [D], Deutsche Steinkohle AG DSK [D], Mondo Minerals Oy [FIN], RJB [GB], Exxon Mobil Corp., Ioukos Sibneft, ChevronTexaco, Total, BP Amoco Corp, ENI.

- **Typical end user:** A Dutch gas and oil company

This example is an anonymous Dutch company whose mission is the exploration and production of gas and oil. While it is noted by this company that the subsidence in gas fields is, in most cases, not large (it can be of the order of 5cm), there are costs involved in remedial action. For example, the company pays the Dutch water boards recharge groundwater levels affected by the extraction operations. Requirements highlighted by other users suggest that oil and gas field management might also become an important market for *Terrafirma* data products. Data products will need to be of similar resolution to current levelling techniques – 2/3cm in Z. Surveys are currently carried out every 1 to 3 years depending on the gas/oil field.

3 KEY USER SEGMENTS LISTS

3.1 Public Sector

3.1.1 Cities

The description of characteristic users from the Public Sector key user segment covers the principal user of urban ground movement information – city authorities. This section provides information on the city authorities of the sixteen cities that have been identified for processing to date.

3.1.1.1 Amsterdam, NL

- Organisational Structure

Amsterdam is governed by the council of Mayor and Alderman. The Mayor is appointed by the crown and responsible for civil security and heads the council. The Alderman and the city council, which controls the council of Mayor and Alderman, hold elected positions. The city is managed by the Mayor and Alderman via departments for civil security, city development, economical development, sports and recreation, environment, traffic and infrastructure etc.

- Departments concerned by ground movement information

The following departments and sub-divisions could be interested in ground movement:

1. The Office of Monuments and Archeology
2. The Office of Infrastructure, Traffic and Transport
3. Engineering Office of Amsterdam
4. Environmental and Constructional Inspection

- Budget and Staff

The total budget of Amsterdam for 2003 is 5007 M€. The budget allocated for 'Traffic and Infrastructure' is 500 M€, for 'Public Space and Green' is 27 M€, for 'Environment and Water' 307 M€ and for 'Culture and Monuments' 111 M€.

- Tendering mechanisms

The City of Amsterdam is bound to national and European legal obligations for tendering. Tendering in general is in competition and European tendering procedures are followed when a budget indication exceeds the European threshold for European competition unless certain exceptions apply (e.g. research character, one-of-a kind service etc.).

3.1.1.2 Athens, GK

- Organisational Structure

- Departments concerned by ground movement information

- Budget and Staff

- Tendering mechanisms

3.1.1.3 Barcelona, E

- Contact Details

Address: City Council of Barcelona, Pl. Saint Jaume 1, 08002 Barcelona

Telephone: 807 31 70 10

Web address: www.bcn.es

- Organisational Structure

On the basis of functional structure there are six sectors of action. The management of each sector is carried out by a Manager appointed by the Mayor's Office. Delegate Managers may be appointed. These sectors are as follows:

1. **General Services**

The purpose of this sector is to integrate and coordinate executively the management of the human, material and economic resources of the Municipality, of the integrated information network and of the municipal finances.

2. **Urban Planning**

This sector carries out the executive management of the city's urban planning services in the areas of development and planning, urban projects, land management, regulations and ordinances, and urban development discipline.

3. **Economic Promotion**

4. **Urban Services and Environment**

This sector is in charge of the executive management of the city's maintenance services, basically by means of centralised contracts, and of the performance of the Municipal Plan of Action with respect to matters concerning the environment.

5. **Personal Services**

This sector is responsible for the executive management of the rendering of personal services - social affairs, public health, education, sport... - which are not decentralised territorially, and the integration and coordination of the decentralised personal services in order to achieve a balance between the services rendered and the city's demand.

6. **Prevention and Security**

The purpose of this sector is the executive management of the services relating to public roads: the planning, development and regulation of vehicles and pedestrians, the safety of the public roads and of people, and the city's rescue and fire extinction services.

- Departments concerned by ground movement information
 - **Urban Planning**
 - **Prevention and Security**

- Budget and Staff

Total Budget 1.840.043.664,00€

Number of staff: 6500

- Tendering mechanisms

3.1.1.4 Berlin, D

- Contact Details
- Organisational Structure
- Departments concerned by ground movement information
- Budget and Staff
- Tendering mechanisms

3.1.1.5 Catania, I

- Contact Details

Address: PIAZZA DUOMO 3

Telephone: 095 - 7421111 Fax 095 - 7423758

Web address: <http://www.comune.catania.it>

- Organisational Structure

Castiglione Santo	Rapporti con il Commissario straordinario al traffico - N.U. - Mare - Manutenzioni ordinarie -
D Antoni Orazio	Parchi naturali - Ambiente - Ecologia - Verde pubblico - Progetto San Cristoforo -
D'Agata Rosario Giancarlo	Industria - aziende partecipate - Sviluppo - Innovazione - Esternalizzazioni - Internazionalizzazioni - Gemmellaggi -
D'Asero Antonino	Finanza - Statistica - Investimenti - Pianificazione e Controllo di gestione - Patrimonio - Industria - Industria - Bilancio - Entrate - Programmazione tributi - Pianificazione - Controllo di Gestione - Riorganizzazione Economica - Programmazione Negoziata -
De Mauro Ignazio	Immigrazione - Pari Opportunità - Programmazione "City Lab" - Ufficio Casa - Rapporti con l'associazionismo - Piano di zona Librino - Contenzioso e gestione immobili confiscati - Politiche per la pace e cooperazione decentrata - Fasce e siti deboli - Promozione sociale - Interventi straordinari nei siti deboli - Ufficio affido -

Fatuzzo Fabio	Politiche scolastiche - Pubblica Istruzione - Informatizzazione - Edilizia scolastica - Formazione - Commercio estero -
Forzese Marco	Solidarietà sociale - Progetto Anziani - Progetto Handicap - progetto animali - Progetto minori - Progetto Sicurezza -
Grasso Filippo Gerardo	Rapporti istituzionali - Decentramento - Anagrafe distretti operativi -
Palumbo Giuseppe	Sanità - Rapporti con l'Università - Famiglia - Coordinamento legge 328 -
Rosano Angelo	Sviluppo Agricolo - Economato - Agricoltura - Autoparco - Artigianato - Commercio - Acquisti -
Sardo Gaetano	Cultura - Politiche giovanili e internazionali -
Scavone Antonio	Lavori pubblici - Opere Pubbliche - Arredo Urbano -
Strano Antonino detto Nino	Turismo - Sport -

- Departments concerned by ground movement information
- Budget and Staff

Total budget 2000: 965.772.643 Lira

- Tendering mechanisms

<http://www.comune.catania.it/comunedicatania/regolamenti/regolamenti.htm>

3.1.1.6 Edinburgh, UK

- Organisational Structure

Edinburgh City Council. The city of Edinburgh is an all-purpose authority governed by a cabinet consisting of the Leader of the Council (elected by the councillors and usually the leader of the majority political party) and other (usually experienced) councillors elected by the Council. Effectively it forms the Executive, where strategic decisions are made. The elected council sets the budget and capital spending programme for the Council and sets key policies.

The Council is organised into a series of Directorates. The officials from these advise the Executive and the councillors. Each Directorate has its own budget and a set of functions to carry out. Each Directorate will contract out work. The division between work done 'in-house' depends upon need, capability and government policy.

- Departments concerned with ground movement information

There are a limited number of Departments in the city of Edinburgh that may be concerned with the issue of ground movements. These include:

- City Development
- Housing

- Culture and Leisure
- Environmental and Consumer Services

- Budget and Staff

The total expenditure of the city of Edinburgh for 2002-3 was about £935m (€1336m). Expenditure on different areas of responsibility can be summarised as: £128m (€183m) for central and other services (administration), £134m (€191m) on cultural, environmental and planning services, £265m (€379m) on education, £56m (€80m) on highways, roads and transport, £142m (€203m) on housing and £210m (€300m) on social services. The total number of staff working for the city of Edinburgh is not available.

- Tendering mechanisms

The city of Edinburgh's system of competitive tendering is via advertising in appropriate newspapers and trade journals. The Council officer responsible for a particular contract can be contacted based on lists available from the Council. It is also possible to register with the Council as an approved supplier. The contractor will then receive automatic notice of new contracts for which they may tender.

Whilst there is no prescription on local authorities to tender out specific services all Councils have a duty under Best Value legislation (introduced in April 2000) as laid down by Part 1 of the Local Government Act 1999 to fundamentally review their services and make arrangements to ensure continuous improvement having regard to economy, efficiency and effectiveness. All Council services must be reviewed over a five-year period to demonstrate the quality, efficiency and effectiveness of the way in which they deliver their services. Performance indicators and targets for improvement are set and published in an annual Best Value Performance Plan.

3.1.1.7 Glasgow, UK

- Organisational Structure

Glasgow City Council. The city of Glasgow is an all-purpose authority governed by a cabinet consisting of the Leader of the Council (elected by the councillors and usually the leader of the majority political party) and other (usually experienced) councillors elected by the Council. Effectively it forms the Executive, where strategic decisions are made. The elected council sets the budget and capital spending programme for the Council and sets key policies.

The Council is organised into a series of Departments. The officials from these advise the Executive and the councillors. Each Department has its own budget and a set of functions to carry out. Each Department will contract out work. The division between work done 'in-house' depends upon need, capability and government policy.

- Departments concerned by ground movement information

There are several Departments in the city of Glasgow that may be concerned with the issue of ground movements. These include:

- Building Services
- Culture and Leisure Services
- Development and Regeneration Services
- Environmental Protection Services

- Housing Services
- Land Services

- Budget and Staff

The total gross budget of the city of Glasgow for 2002-3 is not easily available but the budget for 2003-4 is approximately £1300m (€1857m). The total number of staff working for the city of Glasgow is not available.

- Tendering mechanisms

The city of Glasgow's system of competitive tendering is via advertising in appropriate newspapers and trade journals. The Council officer responsible for a particular contract can be contacted based on lists available from the Council. It is also possible to register with the Council as an approved supplier. The contractor will then receive automatic notice of new contracts for which they may tender.

Whilst there is no prescription on local authorities to tender out specific services all Councils have a duty under Best Value legislation (introduced in April 2000) as laid down by Part 1 of the Local Government Act 1999 to fundamentally review their services and make arrangements to ensure continuous improvement having regard to economy, efficiency and effectiveness. All Council services must be reviewed over a five-year period to demonstrate the quality, efficiency and effectiveness of the way in which they deliver their services. Performance indicators and targets for improvement are set and published in an annual Best Value Performance Plan.

3.1.1.8 London, UK

- Organisational Structure

Greater London Authority. The metropolis of London has two tiers of local authority. At the highest level is the Greater London Authority (GLA). This is run by an elected Mayor and an elected assembly. The GLA is not a traditional local authority providing a range of public services but, under the direction of the Mayor, exists to provide strategic direction for the future of London.

The Mayor's role is to develop London-wide strategies, in partnership with service providers and other interested parties for major public services in the capital. The Mayor's responsibilities are wide ranging and embrace the police, transport, fire and emergency planning, regeneration, planning, sustainability and environmental issues, cultural affairs, health concerns, as well as the general promotion of London to the wider world.

The London Assembly's role is to provide a check and a balance on the Mayor by scrutinising the Mayor's performance and making proposals to the Mayor. It also has powers to amend the Mayor's budget, subject to a two-thirds majority decision. The Assembly reviews the Mayor's draft strategies and gives its views on them in meetings that are open to the public. It is also empowered to investigate issues of London-wide significance and make proposals to appropriate stakeholders.

Most services are delivered by the London Boroughs that form the second tier of local government. There are thirty four of these in London and information about one of them, Newham, is provided.

- Departments concerned by ground movement information

As the GLA is not a conventional local authority, it has none of the departments associated with other local authorities. However, because of its strategic development role, it is likely to have an interest in ground movement information. In addition, some of the bodies funded through the GLA are likely to have an interest. These include:

- Transport for London
 - London Development Agency
 - London Fire and Emergency Planning Authority
- Budget and Staff

The total gross budget of the GLA for 2003-4 is £67m (€96m). The total number of staff working for the GLA is about 490. However, the gross budget to cover the police, fire and emergency, transport (buses and metro) and development agency costs, as well as the cost of running the GLA, is about £7517m (€10739m).

- Tendering mechanisms

The GLA's system of competitive tendering is via advertising in appropriate newspapers and trade journals. The Authority officer responsible for a particular contract can be contacted based on lists available from the Authority. It is also possible to register with the Authority as an approved supplier. The contractor will then receive automatic notice of new contracts for which they may tender.

Whilst there is no prescription on local authorities to tender out specific services all such bodies have a duty under Best Value legislation (introduced in April 2000) as laid down by Part 1 of the Local Government Act 1999 to fundamentally review their services and make arrangements to ensure continuous improvement having regard to economy, efficiency and effectiveness. All local authority services must be reviewed over a five-year period to demonstrate the quality, efficiency and effectiveness of the way in which they deliver their services. Performance indicators and targets for improvement are set and published in an annual Best Value Performance Plan.

3.1.1.9 Newham, London, UK

- Organisational Structure

London Borough of Newham. Newham is an all-purpose authority governed by an elected Mayor. The Mayor is the leader of the council, elected to give the council political direction and vision. The Mayor takes decisions advised by others, including scrutiny and the cabinet.

The Chief Executive needs to make sure the decisions made by the Mayor are carried out, and to ensure the Mayor is kept fully informed of the issues that will influence his decisions. The Chief Executive is in charge of all staff and he works very closely with the Mayor. The Mayor doesn't have the power to hire and fire.

The Mayor also has a representative role and can speak on behalf of the council in a wide range of settings. Because he is directly elected, the Mayor is accountable to the local community in a robust way. The Mayor must appoint a cabinet of between two and nine members, picked from the elected councillors. The Executive is made up of the Mayor and Cabinet and when it meets collectively they are known as the Cabinet.

Each cabinet member is in charge of a portfolio, rather like a Government minister. The portfolios are usually based on departments providing specific services such as housing, education and social services, or that cut across these areas, such as social inclusion, customer services and regeneration. The Mayor can give these councillors decision-making powers. At present, however, the role of the cabinet is advisory.

In addition to Cabinet members, the Mayor has appointed mayoral advisers. These are other Councillors who may be asked to advise the Mayor on a particular issue, service or project, but they are not part of the executive. They cannot have delegated authority to take decisions on behalf of the Mayor.

The elected Council makes major decisions, such as deciding the council tax and budget and policy framework documents. It is the real focus for the whole Council to meet and debate major issues and to ask questions of the Mayor.

The Newham Borough Council is organised into a series of Directorates. The officials from these advise the Executive and the councillors. Each Directorate has its own budget and a set of functions to carry out. Each Directorate will contract out work. The division between work done 'in-house' depends upon need, capability and government policy.

- Departments concerned by ground movement information

There are a limited number of Departments in the Borough of Newham that are concerned with the issue of ground movements. These include:

- Environment and Regeneration
- Housing
- Culture and Community
- Budget and Staff

The total gross budget of the Borough of Newham for 2002-3 was about £793m (€1133m). Expenditure on different areas of responsibility can be summarised as: £42m (€60m) for central services (administration), £92m (€131m) on cultural, environmental and planning services, £234m (€334m) on education, £27m (€39m) on highways, roads and transport, £292m (€417m) on housing and £106m (€151m) on social services. The total number of staff working for the Borough of Newham is approximately 11500.

- Tendering mechanisms

The Borough of Newham's system of competitive tendering is via advertising in appropriate newspapers and trade journals. The Council officer responsible for a particular contract can be contacted based on lists available from the Council. It is also possible to register with the Council as an approved supplier. The contractor will then receive automatic notice of new contracts for which they may tender.

Whilst there is no prescription on local authorities to tender out specific services all Councils have a duty under Best Value legislation (introduced in April 2000) as laid down by Part 1 of the Local Government Act 1999 to fundamentally review their services and make arrangements to ensure continuous improvement having regard to economy, efficiency and effectiveness. All Council services must be reviewed over a five-year period to demonstrate the quality, efficiency and effectiveness of the way in which they deliver their services.

Performance indicators and targets for improvement are set and published in an annual Best Value Performance Plan.

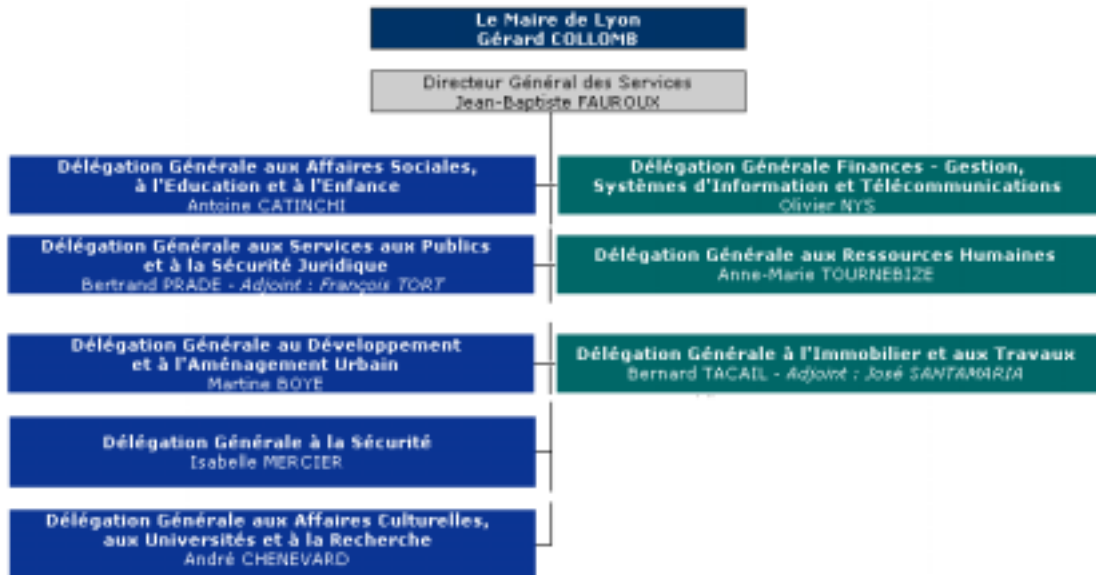
3.1.1.10 Lyon, F

- Contact Details

Postal Address: Hôtel de Ville de Lyon
Place de la Comédie
BP 1065
69205 LYON CEDEX 01

Telephone: 04 72 10 30 30

- Organisational Structure



- Departments concerned by ground movement information
 - Délégation Générale à la sécurité (General Security delegation)
 - Délégation Générale à l'immobilier et aux travaux (General Buildings and Works delegation)
- Budget and Staff

The total budget for 2004 for the city of Lyon is 628M€.

- Tendering mechanisms

The City of Lyon operates a system of competitive tendering issued through the website at http://www.mairie-lyon.fr/vdl/sections/fr/economie/marches_publics/.

3.1.1.11 Milan, I

- Contact Details

Address: PIAZZA DELLA SCALA 2

Telephone: 02 - 88451 Fax 02 - 88450591

Web address: <http://www.comune.milano.it>

- Organisational Structure

LA GIUNTA

Assessorato: Moda, Turismo e Tempo Libero

Assessorato: Sport e Giovani

Assessorato: Cultura e Musei

Assessorato: Decentramento, Rapporti con Consiglio Comunale ed ANCI, Servizi funebri e cimiteriali

Assessorato: Trasporti e Mobilità

Assessorato: Personale, Lavoro e Risorse

Assessorato: Politiche Sociali

Assessorato: Sicurezza e Periferie

Assessorato: Servizi Civici ed Innovazione Tecnologica

Assessorato: Demanio e Patrimonio

Assessorato: Commercio ed Artigianato

Assessorato: Educazione ed Infanzia

Assessorato: Bilancio, Controllo di Gestione e Privatizzazioni

Assessorato: Sviluppo del Territorio

Assessorato: Ambiente

- Departments concerned by ground movement information

Il Responsabile del Settore Pianificazione e Progettazione Urbana é l' Ing. Arch. Pietro Lupieri

Sede degli Uffici: Via G.B. Pirelli n° 39

Segreteria: Sig. ra Susanna Tonelli - 5° Piano stanza 4 Tel. 02 88466300 Fax 02 88466985

- Budget and Staff

Total budget 2000: 14.640.258.722 Lira

- Tendering mechanisms

3.1.1.12 Newcastle upon Tyne, UK

- Organisational Structure

Newcastle City Council. The city of Newcastle is an all-purpose authority governed by a cabinet consisting of the Leader of the Council (elected by the councillors and usually the leader of the majority political party) and other (usually experienced) councillors elected by the Council. Effectively it forms the Executive, where strategic decisions are made. The elected council sets the budget and capital spending programme for the Council and sets key policies.

The Council is organised into a series of Directorates. The officials from these advise the Executive and the councillors. Each Directorate has its own budget and a set of functions to carry out. Each Directorate will contract out work. The division between work done 'in-house' depends upon need, capability and government policy.

- Directorates concerned with ground movement information

There are a limited number of Directorates in the city of Newcastle that may be concerned with the issue of ground movements. These include:

- Cityworks
- Community and Housing
- Enterprise Environment and Culture

- Budget and Staff

The total gross budget of the city of Newcastle for 2002-3 is not available. The total number of staff working for the city of Newcastle is not available.

- Tendering mechanisms

The city of Newcastle's system of competitive tendering is via advertising in appropriate newspapers and trade journals. The Council officer responsible for a particular contract can be contacted based on lists available from the Council. It is also possible to register with the Council as an approved supplier. The contractor will then receive automatic notice of new contracts for which they may tender.

Whilst there is no prescription on local authorities to tender out specific services all Councils have a duty under Best Value legislation (introduced in April 2000) as laid down by Part 1 of the Local Government Act 1999 to fundamentally review their services and make arrangements to ensure continuous improvement having regard to economy, efficiency and effectiveness. All Council services must be reviewed over a five-year period to demonstrate the quality, efficiency and effectiveness of the way in which they deliver their services. Performance indicators and targets for improvement are set and published in an annual Best Value Performance Plan.

3.1.1.13 Palermo, I

- Contact Details

Address: Palazzo delle Aquile, Piazza Pretoria

Telephone: 091 - 7401111 Fax 091 - 7402275

Web address: <http://www.comune.palermo.it>

- Organisational Structure

Vice sindaco

Deleghe: *servizi pubblici locali, società miste.*

Assessore alla Cultura

Deleghe: attività culturali, spazi espositivi, archivi e spazi per la cultura, biblioteche.

Assessore alla Salute e ai Servizi alla Persona

Deleghe: igiene e sanità, mattatoio comunale, servizi cimiteriali.

Assessore all'Urbanistica

Deleghe: urbanistica e progetti speciali. Cinquantasei anni, avvocato civilista, docente di Diritto urbanistico presso la Facoltà di Architettura all'Università di Palermo, e docente di Legislazione dei beni culturali e ambientali presso la Facoltà di Scienze dell'Ateneo palermitano. Dal 1999 al 2001 è stato assessore al Territorio e Ambiente alla Provincia Regionale di Palermo.

Assessore alla Pubblica Istruzione

Deleghe: pubblica istruzione, asili nido.

Assessore al Turismo

Deleghe: Turismo, Promozione e Sviluppo delle Attività Produttive, Concessione amministrativa per l'occupazione di aree e spazi pubblici, Mercati, Rapporti con il Consiglio Comunale

Assessore ai Diritti civili, Trasparenza e Sicurezza

Deleghe: servizi legali, trasparenza amministrativa, contratti, controllo qualità servizi, organizzazione della sicurezza sul territorio, ufficio relazioni con il pubblico.

Assessore al Bilancio e Risorse finanziarie

Deleghe: contabilità e bilancio, risorse e finanza innovativa, servizi tributari, controllo di gestione, sistemi informativi.

Assessore alle Risorse Immobiliari

Deleghe: patrimonio, servizi abitativi.

Assessore all'Ambiente ed Edilizia

Deleghe: ambiente, parchi e riserve, edilizia privata, edilizia scolastica, protezione civile. Quarantadue anni, sposato, due figlie. Ingegnere e dirigente d'azienda, è stato tra i fondatori del CDU in Sicilia. Eletto al Consiglio comunale di Palermo nel '93 per la DC e nel '97 per il CDU. Ha rivestito carica di vice presidente dell'Assemblea di Sala delle Lapidi dal '97 al 2000. È tra i componenti della direzione provinciale dell'UDC.

Assessore al Decentramento e servizi demografici

Deleghe: decentramento, cantiere municipale, servizi demografici (anagrafe, elettorato, stato civile).

Assessore alle Attività sociali

Deleghe: attività sociali, minori, anziani, immigrazione, disabili, prevenzione tossicodipendenze, politiche del volontariato.

Assessore alle Infrastrutture, Mare e Coste

Deleghe: infrastrutture, lavori pubblici, mobilità, traffico, parcheggi, manutenzioni, espropriazioni, mare e coste, manutenzione e gestione dell'impiantistica sportiva

Assessore alle Attività Produttive e Sportello Unico.

Assessore allo Sport.

- Departments concerned by ground movement information

Assessore all'Urbanistica

Assessore ai Diritti civili, Trasparenza e Sicurezza

Assessore alle Infrastrutture, Mare e Coste

- Budget and Staff

Total Budget 2000: 1.572.040.674 Lira

- Tendering mechanisms

<http://www.comune.palermo.it/Comune/Normative/normativ.htm>

3.1.1.14 Paris, F

- Organisational Structure

The city of Paris is governed by the Mayor and the city council who hold elected positions and are advised by the Inspection Générale, Direction de l'information, the Secrétaire Générale among other departments. Separate from this advisory role are a number of departments who are responsible for diverse issues such as the department of development, economic activity and employment, the department of youth and sports, the department of cultural affairs or the department of education etc. In their role, these departments must manage budgets and are responsible for tenders.

- Departments concerned by ground movement information

There are a limited number of departments in the city of Paris who are concerned by the issue of ground movements. These include:

1. Direction de la prévention et de la protection des Parisiens (Department of the protection of Parisians)
2. Direction de la voirie et des déplacements (Department of Transport)
3. Direction de l'urbanisme (Department of Urbanism)
4. Direction du logement et l'habitat (Department of Housing)
5. Direction du Patrimoine et de l'Architecture (Department of Heritage and Architecture)
6. Direction des affaires scolaires (Department of Education)

The Inspection Générale, an advisory body that reports to the Mayor and City Council, should be added to this list despite their purely advisory role. It is this body which interacts with experts such as the BRGM or the Laboratoire des Ponts et Chaussées on ground motion issues.

- Budget and Staff

The total budget of the City of Paris for 2003 is 5800 M€. Various figures can be highlighted for individual departments or actions, for example, 43M€ for the protection of Parisians (excluding police), 191M€ to improve transport networks in Paris, 643 M€ for Urbanism and Housing. The total staff of the City of Paris is 42,722 people.

- Tendering mechanisms

The City of Paris operates a system of competitive tendering issued through the website at www.paris.fr. After the consolidation of a project through consultation with the Inspection Générale and the appropriate advisory bodies, the relevant department emits an invitation to tender through the website. Figure 1 shows an example of a current intended invitations to tender issued by the Department of Cultural Affairs (Direction des affaires culturelles).



Figure 1: Example of Intended Invitations to Tender on www.paris.fr

3.1.1.15 Prato, I

- Contact Details

Address: PIAZZA DEL COMUNE

Telephone: 0574 - 6161 Fax 0574 - 615212

Web address: <http://www.comune.prato.it>

- Organisational Structure

Vicesindaco: Bilancio, Affari Generali, Aziende partecipate

I progetti per i giovani, Politiche sportive.

Cultura e spettacolo, Università

Politiche ambientali

Lavori pubblici, Centro storico e Protezione civile
 Città delle pari opportunità e dei diritti
 Innovazione organizzativa e tecnologica, Mobilità
 Patrimonio, La città multietnica e multiculturale,
 Coordinamento e governo dei processi d'integrazione
 Politiche educative e dell'Istruzione pubblica, Programmazione e sviluppo dello
 Stato sociale locale
 Urbanistica e attuazione Prg
 Sviluppo economico, Sicurezza urbana

- Departments concerned by ground movement information
 Urbanistica e attuazione Prg

Lavori pubblici, Centro storico e Protezione civile

Politiche ambientali

Sviluppo economico, Sicurezza urbana

- Budget and Staff

Total Budget 2000: 327.368.347 Lira

- Tendering mechanisms

<http://www.comune.prato.it/servcom/norme/home.htm>

3.1.1.16 Rome, I

- Contact Details

Address: VIA DEL CAMPIDOGLIO 1

Telephone: 06 - 67101 Fax 06 - 67103590

Web address: <http://www.comune.roma.it>

- Organisational Structure

ViceSindaco Competenze

Politiche e promozione internazionale del turismo e della moda

Competenze di assessori

Link sito Dipartimento

Politiche Culturali, Toponomastica.

Definizione e verifica indirizzi gestionali: Azienda Speciale PalaExpo;

Istituzione Biblioteche; Musica per Roma S.p.A.

Politiche Economiche, Finanziarie e di Bilancio

Coordinamento Aziende Speciali, Istituzioni, Società e Consorzi a
 partecipazione comunale e controllo relativi ai bilanci.

Politiche dell'Industria e dell'innovazione tecnologica.

Definizione e verifica indirizzi gestionali: Mutua Le Assicurazioni di Roma;

Gemma S.p.A. (parte Tributi); RIsorse per Roma S.p.A. (parte Supporto
 politiche economiche e di bilancio)

Politiche Risorse Umane

Decentramento e coordinamento metropolitano

Anagrafe, Servizi Tecnologici e Reti Informative

Sicurezza del Lavoro

Politiche Educative e Scolastiche

Politiche dei Lavori Pubblici, Attuazione Piani di Assetto Aree Ferroviarie

Attuazioni Strumenti Urbanistici

Politiche della Mobilità

Definizione e verifica indirizzi gestionali: A.T.A.C. S.p.A.; S.T.A. S.p.A

Rapporti con le Ferrovie dello Stato S.p.A.

Politiche Ambientali ed Agricole

Definizione e verifica indirizzi gestionali: A.M.A. S.p.A.; Roma Multiservizi

S.p.A.

Polizia Municipale

Politiche della Sicurezza

Avvocatura

Tempi e Orari della Città

Diritti dei Cittadini

Pari Opportunità

Comunicazione e Semplificazione

Statistica e Censimento

Politiche Sociali e dei Servizi alla Persona (escluso Handicap)

Politiche per la Promozione della Salute

Definizione e verifica indirizzi gestionali: FarmaCap; Agenzia Comunale per

le Tossicodipendenze

Politiche del Patrimonio

Politiche Abitative

Promozione Progetti Speciali

Definizione e verifica indirizzi gestionali: Risorse per Roma S.p.A. (parte

Attività di valorizzazione patrimoniale, Alienazione e Progetti Speciali)

Politiche della Programmazione e Pianificazione del Territorio

Definizione e verifica indirizzi gestionali: Gemma S.p.A. (parte Condono

Edilizio)

Coordinamento Generale per la Politica Comunale per le Periferie

Politiche del Lavoro

Progetti Speciali per le Periferie

Programma Cento Piazze

Laboratori di Quartiere

Autopromozione Sociale per le Piccole Imprese (L. 266/97)

Zone O ed Opere a Scomputo

Formazione Professionale

Politiche per L'Infanzia

Politiche del Commercio e dell'Artigianato

Affissioni e Pubblicità

Sportello Unico dell'Impresa

Definizione e verifica indirizzi gestionali: C.A.R. S.p.A.

Consiglieri Delegati

Handicap

Diritti degli Animali

Multietnicità

Università

Partecipazione democratica e bilancio partecipato

Emergenza abitativa

Città Storica

Litorale

Programma Urbano Parcheggi

Sport

- Departments concerned by ground movement information

Politiche dei Lavori Pubblici, Attuazione Piani di Assetto Aree Ferroviarie

Attuazioni Strumenti Urbanistici

Politiche della Programmazione e Pianificazione del Territorio

Definizione e verifica indirizzi gestionali: Gemma S.p.A. (parte Condono Edilizio)

Politiche del Patrimonio

Politiche Abitative

- Budget and Staff

Total Budget 2000: 8.907.276.660 Lira

- Tendering mechanisms

3.1.1.17 Sunderland, UK

- Organisational Structure

Metropolitan Borough of Sunderland. The city of Sunderland is an all-purpose authority governed by a cabinet consisting of the Leader of the Council (elected by the councillors and usually the leader of the majority political party) and other (usually experienced) councillors elected by the Council. Effectively it forms the Executive, where strategic decisions are made. The elected council sets the budget and capital spending programme for the Council and sets key policies.

The Council is organised into a series of Directorates. The officials from these advise the Executive and the councillors. Each Directorate has its own budget and a set of functions to carry out. Each Directorate will contract out work. The division between work done 'in-house' depends upon need, capability and government policy.

- Directorates concerned with ground movement information

There are a limited number of Directorates in the city of Sunderland that may be concerned with the issue of ground movements. These include:

- Development and Regeneration
- Community and Cultural Services

- Budget and Staff

The total gross budget of the city of Sunderland for 2002-3 was about £582m (€831m). Expenditure on different areas of responsibility can be summarised as: £51m (€73m) for central services (administration), £82m (€117m) on cultural, environmental and planning services, £221m (€316m) on education, £26m (€37m) on highways, roads and transport, £83m (€119m) on housing and £118m (€169m) on social services. The total number of staff working for the city of Sunderland is not available.

- Tendering mechanisms

The city of Sunderland's system of competitive tendering is via advertising in appropriate newspapers and trade journals. The Council officer responsible for a particular contract can be contacted based on lists available from the Council. It is also possible to register with the Council as an approved supplier. The contractor will then receive automatic notice of new contracts for which they may tender.

Whilst there is no prescription on local authorities to tender out specific services all Councils have a duty under Best Value legislation (introduced in April 2000) as laid down by Part 1 of the Local Government Act 1999 to fundamentally review their services and make arrangements to ensure continuous improvement having regard to economy, efficiency and effectiveness. All Council services must be reviewed over a five-year period to demonstrate the quality, efficiency and effectiveness of the way in which they deliver their services. Performance indicators and targets for improvement are set and published in an annual Best Value Performance Plan.

3.1.1.18 Sosnowiec, PL

Sosnowiec is a self-governed, one of the largest and most important industrial centres in the Voivodeship of Silesia, located in the Silesian Highlands, in the South-East of the Upper Silesian coal basin. Sosnowiec neighbours Silesian towns of Katowice, Bedzin, Czeladz, Dabrowa Gornicza, Slawkow, Jaworzno, and Myslowice. Covering 91.2 square kilometres and with 239,545 inhabitants (March 31st, 2002), the town ranks 3rd in the Voivodeship and 14th in Poland in population terms. The town was established in June 1902, when Tsar Nicholas II issued a ukase proclaiming the settlement a non-district town.

Sosnowiec was able to develop thanks largely to its favourable geographical location and abundant natural resources. The mining of minerals in this area began at the turn of the nineteenth century. It was then that the first hard coal mines were established. However, the beginning of the true industrial development of the region goes back to 1859, when a branch of the Warsaw-Vienna railway was built there.

In recent years, Sosnowiec has been transformed from an industrial centre with mainly mining and heavy industries into a trade, service processing hub. Its Special Economic Zone (SEZ), which was established in Sosnowiec thanks to the efforts of local authorities, has played a major role in the establishment of new businesses in the area. As a result, several companies with Polish and foreign capital have decided to place their businesses in the city. Companies operating on the local market have easily adopted their technologies to market requirements and global standards.

- Organisational Structure

City Government: Mayor of Sosnowiec - **KAZIMIERZ GÓRSKI**

Deputy Mayor of Sosnowiec - **Zbigniew Jaskiernia**

Deputy Mayor of Sosnowiec - **Witold Klepacz**

Deputy Mayor of Sosnowiec - **Ryszard Łukawski**

Secretary of Sosnowiec - **Michał Kondek**

Treasurer of Sosnowiec - **Janusz Kaczor**

City Council:

Chairman of City Council - **Bogusław Kabała**

Vice-Chairmen of City Council - **Jacek Kazimierczak**

Vice-Chairmen of City Council - **Adam Wolski**

- Departments concerned by ground movement information
 - Department of Geodesy and Area Management
 - Department of Architecture and Building Administration
 - Planning and Urban Office
 - Department of Communal Economy and Housing
 - Department of City Investment
 - [District Inspectorate of Building Supervision](#)
 - Department of Road and Road Traffic Management
 - Department of Environment Protection and Agriculture
 - The Office of City Promotion and International Cooperation
 - City Inspectorate of Civil Defence

- Budget and Staff

Sosnowiec Budget (Income and Expenditure)

	1997	1998	1999	2000
INCOME:				
- Total (1,000s of PLN)	242,613.6	283,614.0	372,713.5	379,654.9
- Per capita (PLN)	993.9	1,166.0	1,531.7	1,574.7
EXPENDITURE:				
- Total (1,000s of PLN)	237,748.6	286,760.7	374,217.5	413,400.6
- Per capita (PLN)	974.2	1,179.0	1,537.8	1,714.6

- Tendering mechanisms
 For any information regarding investment offers in the city, presentation & services of investors, cooperation & promotion of industrial and commercial local activities, city planning, tenders, contact the following address:
 e-mail: bpz.fundusze@um.sosnowiec.pl

3.1.1.19 Stoke-on-Trent, UK

- Organisational Structure

Stoke-on-Trent City Council. The city of Stoke-on-Trent is a unitary authority governed by an elected mayor who, with the (unelected) Council Manager, forms the Executive, where strategic decisions are made. The Council Manager needs to make sure the decisions made by the Mayor are carried out, and to ensure the Mayor is kept fully informed of the issues that will influence his decisions. The Council Manager is in charge of all staff and works very closely with the Mayor. The Mayor doesn't have the power to hire and fire.

The Mayor sets the overall direction of the Council and is its public face. The elected council sets the budget and capital spending programme for the Council and sets key policies. Councillors sit on six Overview Commissions and seven Scrutiny Commissions set up to look closely at decisions taken by the Elected Mayor and Council Manager.

The Council is organised into a series of Directorates. The officials from these advise councillors. Each Directorate has its own budget and a set of functions to carry out. Each Directorate will contract out work. The division between work done 'in-house' depends upon need, capability and government policy.

- Directorates concerned with ground movement information

There are a limited number of Directorates in the city of Stoke-on-Trent that may be concerned with the issue of ground movements. These include:

- Housing and Consumer Protection
- Regeneration and Community
- Urban Environment (which includes engineering, highways and planning)

- Budget and Staff

The total gross budget of the city of Stoke-on-Trent for 2002-3 was about £460m (€657m). Expenditure on different areas of responsibility can be summarised as: £38m (€54m) for central services (administration), £79m (€113m) on cultural, environmental and planning services, £190m (€271m) on education, £19m (€27m) on highways, roads and transport, £35m (€50m) on housing and £92m (€131) on social services. The total number of staff working for the city of Stoke-on-Trent is not available.

- Tendering mechanisms

The city of Stoke-on-Trent's system of competitive tendering is via advertising in appropriate newspapers and trade journals. The Council officer responsible for a particular contract can be contacted based on lists available from the Council. It is also possible to register with the Council as an approved supplier. The contractor will then receive automatic notice of new contracts for which they may tender.

Whilst there is no prescription on local authorities to tender out specific services all Councils have a duty under Best Value legislation (introduced in April 2000) as laid down by Part 1 of the Local Government Act 1999 to fundamentally review their services and make arrangements to ensure continuous improvement having regard to economy, efficiency and effectiveness. All Council services must be reviewed over a five-year period to demonstrate

the quality, efficiency and effectiveness of the way in which they deliver their services. Performance indicators and targets for improvement are set and published in an annual Best Value Performance Plan.

3.1.1.20 St Petersburg, R

- Organisational Structure
- Departments concerned by ground movement information
- Budget and Staff
- Tendering mechanisms

3.1.1.21 Thessaloniki, GR

- Organisational Structure
- Departments concerned by ground movement information
- Budget and Staff
- Tendering mechanisms

3.1.2 National Geological Surveys

A second important group of users described in this dossier are the National Geological Surveys. These organisations play an important role as a contributor of technical input and recommendations to legislative bodies. Every European country has a Geological survey or similar body, however their characteristics vary considerably in administrative terms (table 1 - source FOREGS 2004- ¹ Forum of the European Geological surveys directors):

- Reporting to a range of government ministries: a significant an increasing input from environment science ministries
- A large diversity of statuses. While the public research institute status dominates, certain geological surveys are part of the national administration and a few are agencies. More details are provided in Table 1.
- The technical expertise of the surveys vary and can depend on the administrative structure. For example, in certain countries universities are important partners, in other countries strong regional surveys exist e.g. Germany, Italy, Spain.
- The regulatory structure of Geological surveys is also highly diverse and tends to reflect the funding status of the organisation. Certain surveys have civil servants on their board. External Scientific evaluations are undertaken in a few cases. Very infrequently "Social demand" committees are in place.
- Modes of financing also vary. The rate of public financing varies from 100% in certain countries to 50% or less in others.

number	status	countries
18	Public Research Institute (40 to 90 State Budget)	Belgium, Croatia, Denmark(1), Finland France(2), Greece, Hungary, Iceland(3), Netherlands (4) Norway, Poland, Portugal(5), Romania, Slovakia Slovenia, Spain, U.K.(6) ...
2	Public Research Institute (90-100 State Budget)	Albania, Austria,
5	Public Administration Institute, Agency or Entrepriise	Czech.Rep., Germany ,Italy(7) Latvia, Estonia, Sweden, Turkey
9	Part of Ministry Department	Bulgaria, Cyprus, Ireland, Lithuania, Luxembourg, Malta, Switzerland, Ukraine

Key: (1) research and advisory, (2) research , (3) research and Administrative, (4) part of TNO, (5) part of technological center, (6) part of NERC, (7) part of APAT.

Table 1 - European Geological surveys status

In general terms, Geological Surveys have similar fields of scientific expertise (basic geology & mapping, groundwater, pollution, natural hazards, mineral resources) covering a very wide range of activities. The level of involvement in each varies according to the countries as shown in Table 3 “Activity of Geological Surveys in 2003 - source FOREGS 2004”.

Environment	Science + Technology	Economy	Industry	Other
Bulgaria	Austria (educ.& Culture)	Germany (& Technology)	Albania (& energy)	Greece (Development)
Cyprus (& Agriculture)	Croatia	Hungary (& transport)	Finland (& Trade)	Ireland (com,m.&nat.res)
Czech. Rep.	Belgium (& culture)	Portugal	Iceland (& Trade)	Luxembourg (Public Works)
Denmark	France (& Industry)		Norway (& Trade)	Malta (O. of prime min.)
Italy	Netherlands (& Education)		Sweden (+Employ&Com.)	
Latvia (& Regional Dev.)	Romania (& Education)			
Lithuania	Slovenia (& Educ. +Sport)			
Estonia	UK			
Poland	Spain (& Education)			
Skovakia				
Switzerland (traffic,ener,com)				
Turkey (En. & Nat.Ress.)				
Ukraine (& nat. ress.)				
13	9	3	5	4

Table 2 - European Geological Surveys : governmental supervisory bodies.

In table 3 , Natural Hazards represents between 5% and 30% of their activity, the same is true for geotechnical and engineering geology. It is difficult to be accurate in the assessment of the impact of the activities of INSAR Terra Firma. Nevertheless, through the Eurogeosurveys organisation, the Geological Surveys have the means to anticipate EU priorities on, for

example, water directive, soils, natural resources and environmental monitoring. The general tendency is a strong increase in the field "Natural Hazards" in the coming years.

COUNTRY	1	2	3	4	5	6	7	8	9	10	11
Activity domain	Basic Geology & Mapping	Water & Hydrogeology	Geotech. & Eng.Geol	Natural hazards	Pollution & Wastes	Mineral Res. Met.Ind...	Marine & Littoral Geology	Info. Systems & Supply	Soil Science	International	Other
ALBANIA											
AUSTRIA											
BELGIUM											
CZECH.REP.											
CROATIA											
DENMARK											Oil
ESTONIA											
FINLAND											
France											
GERMANY											
HUNGARY											
ICELAND											Geoth.
LUXEMBURG											
NORWAY											
POLAND											
ROMANIA											
SLOVAKIA											
SLOVENIA											
SPAIN											
SWEDEN											
SWITZERLAND											
U. KINGDOM											

Percentage of total activity

01-05%	05-10%	10-20%	20-30%	30-50%	Over 50%
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Table 3 - Activity of European Geological Surveys in 2003 - source FOREGS 2004.

Descriptions of the three National Geological Surveys included in the Core User Group are provided in the following sections.

3.1.2.1 Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), D

The Federal Institute for Geosciences and Natural Resources (BGR) is the central geoscientific institution of the German Federal Government. BGR provides advice and information to all Federal Ministries on matters concerning mineral economics, applied geosciences, and the geoscientific aspects of the protection of the environment and natural resources. Guiding principle: Improvement of living conditions by sustainable development of the geopotential.

- Departments concerned by ground movement information

The BGR carries out investigations in the fields of mineral economics, applied geosciences, and the geoscientific aspects of the protection of the environment and natural resources both in Germany and abroad, especially in the developing countries.

- Budget and Staff

The BGR works closely with the Geological Survey of Lower Saxony (NLFb). The two organizations have the same President, Vice-President, and administration, and are under the same roof. The BGR workforce numbers approximately 725 people, approximately 40% of which have a higher level degree. The budget for the BGR in 2003 was in the order of 50M€.

3.1.2.2 British Geological Survey, UK

The British Geological Survey, with 800 staff, is the UK national centre for earth science information and expertise. It maintains up-to-date knowledge of the UK landmass and offshore areas by systematic geological, geophysical, geochemical, hydrogeological and geotechnical surveys.

- Departments concerned by ground movement information

The BGS carries out and maintains a wide range of geo-spatial monitoring. It includes ground movements (specifically, earthquakes, landslides, dissolution subsidence and fault reactivation [in collaboration with an external partner]). The BGS monitors ground movements by the systematic mapping of geohazards (using EO data and ground based measurements) and by reacting to geohazard events.

- Budget and Staff

The BGS is funded 50% from the UK government's civil research budget ('the Science Budget') and 50% from earnings in the market from commissioned research and consultancy. The BGS budgets on an annual cycle and is not allowed to have a financial 'shortfall.' The BGS budget for FY2001/2002 was £35million. Around 800 people are employed by the BGS.

3.1.2.3 Bureau de Recherches Géologiques et Minières (BRGM), FR

BRGM, the French Geological Survey, works towards the sustainable management of France's subsurface resources. The objectives of the BRGM are to understand geological phenomena, develop new methodologies and techniques, produce and disseminate pertinent, high-quality data.

- Departments concerned by ground movement information

BRGM has a mission of public service and provides diagnostic expertise to various Ministries and State services. In this role, BRGM participates in the identification of priority hazards and provides information on involved mechanisms and on available investigation and monitoring methods. The 70 employees in the "Development Planning and Natural Hazards" department are most concerned by the issue of ground movement.

- Budget and Staff

The BRGM workforce numbers approximately 850 people, approximately 65% of which have a higher level degree. The budget for the BRGM in 2002 was in the order of 75M€.

3.1.2.4 Netherlands Institute of Applied Geoscience TNO, NL

The Netherlands Institute of Applied Geoscience TNO – *National Geological Survey* is the central geoscience institute in the Netherlands for information and research to promote the sustainable management and use of the subsurface and its natural resources. It provides an independent, objective and authoritative judgement about all the geoscientific aspects and the related technological aspects of managing and using the Netherlands subsurface and the natural resources that are present.

- Departments concerned by ground movement information

TNO's clients are in the public and private sector and comprise national waterboard authorities, national building and infrastructure authorities, oil and gas companies, ground engineering companies, local and national government. TNO-NITG advises the Minister of Economic Affairs on the actual and potential natural resources underground and on the production plans for oil and gas-resources, including the probability of ground movements. TNO-NITG has a strong position in the groundwater sector, advising and doing research for provinces and water companies.

- Budget and Staff

The institute employs around 400 people and has a turnover of 35M€. Roughly half of this sum comes from government funding and half via externally financed projects.

3.1.3 Public Sector: Other End Users

Country	Name	Address	public (pu)/ private (pr)	Number of employees (year)	Turnover (year)
B	FEDIEX	8, rue Volta B-1050 - BRUXELLES	pu	N/A	N/A
B	Ministère wallon de l'Équipement et des Transports Direction Générale des Routes et des Autoroutes	8, Boulevard du Nord 5000 - Namur	pu	N/A	N/A
B	Ministère wallon de l'Équipement et des Transports Direction Générale des Voies hydrauliques	8, Boulevard du Nord 5000 - Namur	pu	N/A	N/A
B	Ministère wallon de l'Équipement et des Transports Direction générales des Services Techniques	8, Boulevard du Nord 5000 - Namur	pu	N/A	N/A
B	Société Publique de Gestion de l'Eau	46, Rue Laoureux 4800 - VERVIERS	pu	N/A	N/A
B	Ministère des Affaires Sociales, de la Santé Publique et de l'Environnement	19, Boulevard Pachéco Bte 5 1010 - Bruxelles	pu	N/A	N/A
CH	CREALP (Centre de Recherche sur l'Environnement Alpin)	Rue Cèdres CH 1951 - SION	pu	N/A	N/A
F	Ministère de l'Équipement, des Transports, du Logement, du Tourisme et de la Mer	Arche Sud 92055 La Défense Cedex	pu	N/A	N/A

F	Ministère de l'Ecologie et du Développement Durable	20 avenue de Ségur 75302 Paris 07 SP	pu	N/A	N/A
F	Ministère de l'Interieur	Place Beauvau - 75008 Paris	pu	N/A	N/A
F	Ministère de l'Economie, des Finances et de l'Industrie	139 rue de Bercy, 75012 Paris	pu	N/A	N/A
F	Région Alsace	35, avenue de la Paix, BP 1006 F 67070 Strasbourg Cedex	pu	N/A	N/A
F	Région Aquitaine	Hôtel de Région, 14 rue François de Sourdis 33077 Bordeaux	pu	N/A	N/A
F	Région Auvergne	13/15, avenue de Fontmaure - BP 60 63402 Chamalières Cedex	pu	N/A	N/A
F	Région Basse Normandie	Place de la Reine Mathilde, BP 523 F 14035 CAEN Cedex	pu	N/A	N/A
F	Région Bourgogne	17, boulevard de la Trémouille, BP 1602 F21035 DIJON	pu	N/A	N/A
F	Région Bretagne	283, avenue du Général George's Patton 35000 Rennes	pu	N/A	N/A
F	Région Centre	9, rue Pierre Lentin 45041 ORLEANS Cedex 1	pu	N/A	N/A
F	Région Champagne-Ardenne	5, rue de Jéricho 51037 CHALONS-EN-CHAMPAGNE Cedex	pu	N/A	N/A
F	Région Corse	Hôtel de Région, 22, cours Grandval, BP 215 20187 Ajaccio	pu	N/A	N/A
F	Région Franche Comté	4, square Castan 25031 BESANCON Cedex	pu	N/A	N/A
F	Région Haute Normandie	25, boulevard Gambetta, BP 1129 76174 ROUEN Cedex	pu	N/A	N/A

F	Région Île de France	33, rue Barbet de Jouy 75007 PARIS	pu	N/A	N/A
F	Région Languedoc Roussillon	201, avenue de la Pompignane 34064 MONTPELLIER Cedex 2	pu	N/A	N/A
F	Région Limousin	27, boulevard de la Corderie 87031 LIMOGES Cedex	pu	N/A	N/A
F	Région Lorraine	1, place Gabriel Hocquard 57000 METZ	pu	N/A	N/A
F	Région Midi Pyrénées	22, boulevard Maréchal Juin 31400 TOULOUSE	pu	N/A	N/A
F	Région Nord- Pas de Calais	Centre Rihour 59555 LILLE Cedex	pu	N/A	N/A
F	Région Pays de la Loire	1, rue de la Loire 44266 NANTES Cedex 2	pu	N/A	N/A
F	Région Picardie	11, mail Albert 1er 80000 AMIENS	pu	N/A	N/A
F	Région Poitou-Charentes	15, rue de l'Ancienne Comédie, BP 575 82021 POITIERS Cedex	pu	N/A	N/A
F	Région Provence-Alpes Côte d'Azur	27 Place J. Guesde 13002 MARSEILLE	pu	N/A	N/A
F	Région Rhône Alpes	78, route de Paris, BP 19 69751 CHARBONNIERES-LES-BAINS Cedex	pu	N/A	N/A
F	Agence de l'eau - Artois - Picardie	200, rue Marceline - BP 818 Centre tertiaire de l'Arsenal 59508 DOUAI Cedex	pu	N/A	N/A
F	Agence de l'eau - Loire Bretagne	Avenue de Buffon BP 6339 45063 ORLEANS Cedex 02	pu	N/A	N/A

F	Agence de l'eau - Rhin-Meuse	Le Longeau - Route de Lessy ROZERIEULLES 6 BP 30019 57161 MOULINS-LES-METZ Cedex	pu	N/A	N/A
F	Agence de l'eau - ADOUR-GARONNE	90, rue du Férétra 31078 TOULOUSE Cedex 4	pu	N/A	N/A
F	Agence de l'eau - RHONE-MEDITERRANEE-CORSE	2-4, allée de Lotz 69363 LYON Cedex 07	pu	N/A	N/A
F	AGENCE DE L'EAU - SEINE-NORMANDIE	51, rue Salvador-Allende 92027 NANTERRE Cedex	pu	N/A	N/A
F	ADEME	27, rue Louis Vicat 75737 - Paris cedex 15	pu	N/A	N/A
F	CERTU (Centre d'étude sur les Réseaux, le Transport et l'Urbanisme)	9, rue Juliette Récamier 69456 - LYON cedex 06	pu	N/A	N/A
F	CETMEF (Centre d'études maritime et fluviale)	2, boulevard Gambetta BP 60039 60321 - COMPIEGNE cedex	pu	N/A	N/A
F	CETU (Centre Etude sur les Tunnels)	25, avenue François Mitterrand - Case 1 69674 - BRON cedex	pu	N/A	N/A
F	CHARBONNAGE DE FRANCE	100, avenue Albert 1er - BP 220 92503 - RUEIL MALMAISON CEDEX	pu	N/A	N/A
F	CIRAD	42, rue Scheffer 75116 - PARIS	pu	N/A	N/A
F	IFREMER	Technopolis 40, 155, rue J-J. Rousseau 92138 - ISSY-LES-MOULINEAUX	pu	N/A	N/A
F	INERIS	Parc Technologique Alata BP 2 60550 - VERNEUIL EN HALATTE	pu	N/A	N/A
F	INSTITUT FRANCAIS DU PETROLE	6 et 4 av de Bois préau BP 311 92852 - RUEIL-MALMAISON Cedex	pu	N/A	N/A

F	Institut Géographique National	136 bis, rue de Grenelle 75700 - PARIS	pu	N/A	N/A
F	Institut National de la Recherche Agronomique	147, rue de l'Université 75338 - PARIS cedex 07	pu	N/A	N/A
F	Institut National de Recherche sur les Transports	2 Av. du Gal Malleret-Joinville 94114 - ARCUEIL cedex	pu	N/A	N/A
F	IRD	213, rue La Fayette 75480 - PARIS Cedex 10	pu	N/A	N/A
I	Presidenza del Consiglio dei Ministri	Palazzo Chigi - Piazza Colonna, 370 - I 00187 ROMA	pu	N/A	N/A
I	Dipartimento della Protezione Civile	Via Ulpiano, 11 - I 00193 ROMA RM	pu	N/A	N/A
I	Agenzia per la Protezione dell'Ambiente e per i Servizi Tecnici (APAT)	Via Vitaliano Brancati, 48 - I 00144 ROMA RM	pu	N/A	N/A
I	Ministero della Difesa	Via XX Settembre, 11 - I 00187 ROMA RM	pu	N/A	N/A
I	Ministero dell'Istruzione dell'Università e della Ricerca	Viale Trastevere, 76/a - I 00153 ROMA RM	pu	N/A	N/A
I	Ministero delle Infrastrutture e dei Trasporti	Piazzale Porta Pia, 1 - 00198 ROMA RM	pu	N/A	N/A
I	Ministero dell'Ambiente e della Tutela del Territorio	Via Cristoforo Colombo, 44 - 00147 ROMA RM	pu	N/A	N/A
I	Autorità per l'energia elettrica e il gas	Piazza Cavour, 5 - I 20121 MILANO MI	pu	N/A	N/A
I	Autorità di Bacino del Fiume Po	Via Garibaldi, 75 - I 43100 - FIRENZE FI	pu	N/A	N/A
I	Autorità di Bacino del Fiume Arno	Via dei Servi, 15 - I 50122 - FIRENZE FI	pu	N/A	N/A

I	Autorità di Bacino dei Fiumi Liri-Garigliano e Volturno	Piazzetta Giustino Fortunato, 10 - I 80138 NAPOLI NA	pu	N/A	N/A
I	Autorità di Bacino del Fiume Adige	Largo Porta Nuova, 9 - I 38100 TRENTO TN	pu	N/A	N/A
I	Autorità di Bacino del Fiume Tevere	Via Vittorio Bachelet, 12 - I 00185 ROMA RM	pu	N/A	N/A
I	Consiglio Nazionale delle Ricerche (CNR) - Gruppo Nazionale per la Difesa dai Rischi Chimico-Industriali ed Ecologici (GNDRICIE)	c/o Istituto di Ricerche sulla Combustione - Piazzale Vincenzo Tecchio, 80 - 80125 NAPOLI NA	pu	N/A	N/A
I	Consiglio Nazionale delle Ricerche (CNR) - Gruppo Nazionale per la Difesa dalle Catastrofi Idrogeologiche (GNDCI)	c/o Istituto di Ricerca per la Protezione Idrogeologica nell'Italia Centrale - Via Madonna Alta, 126 - I 06128 PERUGIA PG	pu	N/A	N/A
I	Istituto Nazionale di Geofisica e Vulcanologia (INGV) - Gruppo Nazionale per la Difesa dai Terremoti (GNDT)	Via Nizza, 128 - I 00198 ROMA RM	pu	N/A	N/A
I	Istituto Nazionale di Geofisica e Vulcanologia (INGV) - Gruppo Nazionale per la Vulcanologia (GNV)	Via Nizza, 128 - I 00198 ROMA RM	pu	N/A	N/A
I	Regione Valle d'Aosta	Piazza Deffeyes - I 11100 AOSTA AO	pu	N/A	N/A
I	Regione Piemonte	Piazza Castello, 165 - I 10122 TORINO TO	pu	N/A	N/A
I	Regione Liguria	Via Fieschi, 15 - I 16121 GENOVA GE	pu	N/A	N/A

I	Regione Lombardia	Via Fabio Filzi, 22 - I 20124 MILANO MI	pu	N/A	N/A
I	Regione Veneto	Palazzo Balbi - Dorsoduro, 3901 - I 30123 VENEZIA VE	pu	N/A	N/A
I	Regione Trentino - Alto Adige	Via Gazzoletti - I 38100 TRENTO TN	pu	N/A	N/A
I	Provincia Autonoma di Bolzano - Alto Adige	Via Crispi, 22 - I 39100 BOLZANO BZ	pu	N/A	N/A
I	Provincia Autonoma di Trento	Via Dante, 15 - I 38100 TRENTO TN	pu	N/A	N/A
I	Regione Friuli - Venezia Giulia	Piazza dell'Unità d'Italia, 1 - I 34121 TRIESTE TS	pu	N/A	N/A
I	Regione Emilia - Romagna	Viale Aldo Moro, 52 - I 40127 BOLOGNA BO	pu	N/A	N/A
I	Regione Toscana	VialeCavour, 18 - I 50122 FIRENZE FI	pu	N/A	N/A
I	Regione dell'Umbria	Corso Vannucci, 96 - I 06121 PERUGIA PG	pu	N/A	N/A
I	Regione Marche	Via Gentile da Fabriano - I 60125 ANCONA AN	pu	N/A	N/A
I	Regione Lazio	Via R.R. Garibaldi, 7 - 00145 ROMA RM	pu	N/A	N/A
I	Regione Abruzzo	Piazza San Silvestro, 26 - I 67100 L'AQUILA AQ	pu	N/A	N/A
I	Regione Molise	Via XXIV Maggio, 130 - I 86100 CAMPOBASSO CB	pu	N/A	N/A
I	Regione Campania	Via Santa Lucia, 81 - I 80132 NAPOLI NA	pu	N/A	N/A
I	Regione Basilicata	Via Anzio - I 85100 POTENZA PZ	pu	N/A	N/A

I	Regione Puglia	Lungomare Nazario Sauro, 31 - I 70124 BARI BA	pu	N/A	N/A
I	Regione Calabria	Via Nassara - I 88100 CATANZARO CZ	pu	N/A	N/A
I	Regione Siciliana	Piazza Indipendenza, 21 - I 90129 PALERMO PA	pu	N/A	N/A
I	Regione Sardegna	Viale Trento, 69 - I 09129 CAGLIARI CA	pu	N/A	N/A
UK	Coal Authority	200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	pu	N/A	N/A
UK	Department for Environment, Food and Rural Affairs	Nobel House, 17 Smith Square, London, SW1P 3	pu	N/A	N/A
UK	Health and Safety Executive	Rose Court, 2 Southwark Bridge, LONDON, SE1 9HS	pu	N/A	N/A
UK	Highways Agency	Romney House, 43 Marsham Street, LONDON, SW1P 3HW	pu	N/A	N/A
UK	Office of the Deputy Prime Minister	26 Whitehall, London, SW1A 2WH	pu	N/A	N/A
UK	Home Office	7th floor, 50, Queen Anne's Gate, London SW1H 9AT	pu	N/A	N/A
UK	Department of Transport	Great Minster House, 76 Marsham Street, London, SW1P 4DR	pu	N/A	N/A
UK	Department of Trade and Industry	DTI Enquiry Unit, 1 Victoria Street, London, SW1H OET	pu	N/A	N/A

3.2 Extraction Industry

3.2.1 Coal-Fuel

Country	Name	Address	public (pu)/ private (pr)	Number of employees (year)	Turnover (year)
D	RAG Aktiengesellschaft (Mining activity - including DSK)	Rellinghauser Straße 1 - 11, 45128 Essen	pr	54,320	
F	EMC (Entreprise Minière et Chimique)	62 rue Jeanne d'Arc, 75013 – Paris, France	pu	12,000	€2521m
F	Charbonnage de France	100, avenue Albert 1er, 92503 RUEIL MALMAISON	pu		967 M€ (2001)
UK	UK Coal	Harworth Park, Blyth Road, Harworth, Doncaster, DN11 8DB	pr	7,000	900 (M€)
UK	Anglo American Plc	20, Carlton House Terrace, SW1Y 5AN St. James, London	pr	177,000 (2002)	\$20,000m (2002)
UK	BHP Billiton	Neathouse Place, London SW1 1BH	pr	38,000 (2002)	\$12,000m (2003)
CH	Xstrata	Bahnhofstrasse 2, PO BOX 102 6301 Zuq	pr	11,409 (2002)	

3.2.2 Minerals

Country	Name	Address	public (pu)/ private (pr)	Number of employees (year)	Turnover (year)
B	CARRIERES D'ANTOING	8, rue du coucou B-7640 ANTOING	N/A	N/A	N/A
B	CARRIERES DU FOND DES VAULX SA	Route de Rochefort S/N B-6920 WELLIN	N/A	N/A	N/A
B	CARRIERES DU HAINAUT SA	rue de Cognebeau 245 B-7060 SOIGNIES	N/A	N/A	N/A
B	CARRIERES LEMAY SA	Vieux Chemin de Mons 12 B-7536 VAULX	N/A	N/A	N/A
B	CARRIERES LES PETONS	Rue Beau Sejour 52 B-5650 YVES GOMEZEE	N/A	N/A	N/A
B	CARRIERES SUR LES ROCHES	Route de Clairvaux B-6600 BASTOGNE	N/A	N/A	N/A
B	CIMESCAUT MATERIAUX	37, rue du coucou B-7640 ANTOING	N/A	N/A	N/A
B	COGEMA	BU Mines / DT /MQSE 2, rue Paul Dautier - BP 4 78141 VELIZY cedex	N/A	N/A	N/A
B	Compagnie des Ciments Belges	260, Grande Route B-7530 GAURAIN RAMECROIX	N/A	N/A	N/A
B	HOLCIM BELGIQUE	2, rue des Fabriques B-7034 MONS	N/A	N/A	N/A
B	SCT-Societe des Carrieres du Tournaisis	Grande Route 19 B-7530 TOURNAI (GAURAIN)	N/A	N/A	N/A

B	CARRIERES DES LIMITES	Rue de Ave 97G B-6920 WELLIN	N/A	N/A	N/A
CH	CARRIERES D'ARVEL SA	Case Postal 60 CH-1844 VILLENEUVE	N/A	N/A	N/A
D	K+S AG	Bertha-von-Suttner-Str. 7, D - 34131 Kassel	N/A	N/A	N/A
D	Südwestdeutsche Salzwerke AG	Salzgrund 67, D-74076 Heilbronn	N/A	N/A	N/A
D	Heidelberg Cement	Berliner Strasse 6 69120 Heidelberg, Germany	pr	36,800	6,600 (M€)
E	Iber-Potash Ltd.	Centro Minero, Afueras, s/n, E-08260 Suria (Barcelona)	N/A	N/A	N/A
E	Magnesitas de Rubian S.A.	Ctra. Comarcal 546, km. 35, E-27341 Vila De Mouros, Lugo	N/A	N/A	N/A
E	Magnesitas Navarras S.A.	Carretera nacional 135, km 20, E-31630 Zubiri - Navarra	N/A	N/A	N/A
E	Rio Narcea Gold Mines Ltd	Belmonte de Miranda, E-33836 Begega-Asturias			
E	ENDESA	C/ Ribera del Loira, 60 28042 Madrid	pr		
F	Cogema	2, rue Paul Dautier, Bte 4, 78141 Vélizy cedex	pu	20,000 (2003)	€4,000m (2003)
F	EMC (Entreprise Minière et Chimique)	62 rue Jeanne d'Arc, 75013 – Paris, France	pu	12,000	€2521m
F	GROUPE MEAC SAS	26 Rue Henri Iv, 28190 ST GEORGES SUR EURE			
F	UMICORE FRANCE SA	Les Mercuriales, Tour du Ponant - 40, rue Jean Jaurès, 93176 BAGNOLET		1585	
F	Lafarge	61 rue des Belles Feuilles, BP 40, 75782 Paris Cedex 16		77,000	14,000 (M€)

F	COLAS	7, place René Clair, 92653 Boulogne-Billancourt Cedex		55 787	7,600 (M€)
F	Vicat	Tour Manhattan - 6, place de l'Iris, 92095 Paris-la-Défense Cedex		5,700	1,463 (M€)
F	ARBED	Division des Mines Françaises - Rue St Michel BP 83 57390 AUDUN LE TICHE	N/A	N/A	N/A
F	ARDOISIERES D'ANGERS	120, rue ambroise Croizat BP 148 49800 TRELAZE	N/A	N/A	N/A
F	CARRIERE DE LA VALLEE HEUREUSE	BP 3 Hydrequent 62720 RINXENT	N/A	N/A	N/A
F	CARRIERE DE SAINT DENIS	La Menardière 79330 LUCHE-THOUARSAIS	N/A	N/A	N/A
F	CARRIERES Bresse Bourgogne	Zone Portuaire Sud 71380 EPERVANS	N/A	N/A	N/A
F	CARRIERES CHASSE	Chemin des Masses BP 9 44850 ST MARS DU DESERT	N/A	N/A	N/A
F	CARRIERES de CONDAT	Rue du Commandant Charcot 87220 FEYTIAT	N/A	N/A	N/A
F	CARRIERES DE LA MADELEINE	2, rue des Roses 34970 LATTES	N/A	N/A	N/A
F	CARRIERES DE ST LAURENT	RD 518 69780 ST PIERRE DE CHANDIEU	N/A	N/A	N/A
F	CARRIERES DE STINKAL	Beaulieu Ferques 62250 MARQUISE	N/A	N/A	N/A
F	CARRIERES DES GRANDS USAGES	Le Subdray 18570 La Chapelle St Ursin	N/A	N/A	N/A
F	CARRIERES et Bétons BRONZO	Athelia 1 BP 145 13702 LA CIOTAT cedex	N/A	N/A	N/A

F	CARRIERES ET MATERIAUX	BP 48 58800 CORBIGNY	N/A	N/A	N/A
F	Carrières et Sablières du Centre	Bransat 35000 SAINT POURCAIN sur Sioule	N/A	N/A	N/A
F	CARRIERES ET TRAVAUX PUBLICS DES HAUTS-CANTONS	Farrussiere haute 34700 LAUROUX	N/A	N/A	N/A
F	CARRIERES EXIDEUIL	Saint eloi 16150 EXIDEUIL	N/A	N/A	N/A
F	CARRIERES FOURS A CHAUX	BP 1 55100 DUGNY SUR MEUSE	N/A	N/A	N/A
F	CARRIERES LAFITTE	Lieu dit Touya 40500 CAUNA	N/A	N/A	N/A
F	CARRIERES MENEZ LUZ	BP 3 29560 TELGRUC SUR MER	N/A	N/A	N/A
F	Carrières Pascual	Chailloué 61500 SEES	N/A	N/A	N/A
F	CARRIERES VAUCLUSIENNES	BP 08 84450 ST SATURNIN LES AVIGNON	N/A	N/A	N/A
F	CIMENTS CALCIA	Les Technodes BP 1 78932 GUERVILLE Cedex	N/A	N/A	N/A
F	CIMENTS DE LA LOIRE	Villiers au Bouin 37330 CHÂTEAU LA VALLIERE	N/A	N/A	N/A
F	CIMENTS D'ORIGNY	BP 01 57830 HEMING	N/A	N/A	N/A
F	CIMENTS FRANCAIS	Tour Ariane F 92088 Paris La Défense			2930 M€
F	DENAIN ANZIN MINERAUX	4, avenue Velasquez 75008 PARIS	N/A	N/A	N/A

F	SABLIERES DE LA GARONNE	35 avenue Champollion BP 1689 31103 TOULOUSE cedex	N/A	N/A	N/A
F	SABLIERES MALET	25 avnue de Larrieur BP 1014 31036 TOULOUSE cedex 01	N/A	N/A	N/A
F	SABLIERES SIGNAL	Les Vallons 26800 MONTOISON			
F	SAINT GOBAIN	Les miroirs - cedex 27 92096 LA DÉFENSE			
FIN	Mondo Minerals Oy	Kasarmikatu 22, FIN-00130 Helsinki	pr		
FIN	Outokumpu	Corporate Management, Riihitontuntie 7 B, P.O. Box 140, FIN-02201 Espoo, Finland	pr	21 000	6,000 (M€)
FIN	Nordkalk	Skräbbölevägen 18 FI-21600 Pargas	pr	1 300	252 (M€)
GR	Silver & Barytes Ores Mining Co.S.A.	21A, Amerikis st, GR - 106 72 Athens			
GR	Aluminium de Grece S.A.I.C.	1 Sekeri Street, 106 71 Athens		1,250	
I	CARRIERO MARIO UMBERTO	Ind Min Advisors Via Garosi 93 54037 MARINA DI MASSA MS			
I	ITALCEMENTIGROUP	Via G. Camozzi 124 24121 Bergamo			4261 M€
L	CARRIERES FEIDT	Ernzenerberg L-7636 ERNZEN			
NL	Nedmag Industries	Billitonweg 1, P.O. Box 241, NL-9640 AE Veendam			
S	Boliden Mineral AB	P.O.Box 5001, S-194 61 Upplands Väsby	pr	3,800 (2003)	
S	LKAB	S - 98381 Malmberget			

UK	Brett Group	Robert Brett House, Milton Manor Farm, Ashford Road, Canterbury, Kent CT4 7PP		900	250 (M€)
UK	Anglo American Plc	20, Carlton House Terrace, SW1Y 5AN St. James, London	pr	177,000 (2002)	\$20,000m (2002)
UK	BHP Billiton	Neathouse Place, London SW1 1BH	pr	38,000 (2002)	\$12,000m (2003)
UK	Cleveland Potash	Boulby Mine, Loftus, Saltburn-by-the-Sea, Cleveland TS13 4UZ	pr		
UK	Rio Tinto plc	6, St. James`s Square, UK-SW1Y 4LD London			
UK	Hanson Building Materials Europe	The Ridge, Chipping Sodbury, Bristol, BS37 6AY		7,500	
UK	Tarmac Ltd	20 Carlton House Terrace, Greater London, SW1 5AN			
UK	Lafarge Aggregates Ltd	Mountsorrel Quarry, Loughborough Road, Mountsorrel, Leicestershire LE12 7AT		2,000	450 (M€)
UK	Brett Group	Robert Brett House, Milton Manor Farm, Ashford Road, Canterbury, Kent CT4 7PP		900	250 (M€)
UK	WBB MINERALS	Brookside Hall, Sandbach, Cheshire, CW11 4TF		1,900	
UK	Aggregate Industries UK	Bardon Hill, Coalville, Leicestershire, LE67 1TL			900 (M€)

3.2.3 Oil and Gas

Country	Name	Address	public (pu)/ private (pr)	Number of employees (year)	Turnover (year)
F	Total	2, place de La Coupole, La Défense 6, 92 400 Courbevoie	pr	14 019	16,200 M€
I	AGIP SPA	VIA BORGONUOVO, 18 MILANO ITALY			
NL/UK	Royal Dutch Shell	PO Box 162, 2501 AN The Hague, The Netherlands	pr	115,000	(Sales) \$236,000m
R	YukosSibneft	(Yukos Head Office) 31a, Dubininskaya str. Moscow 115054, Russia	pr	-	-
UK	BP	1 St James's Square, London, SW1Y 4PD	pr	115,250	(revenues) \$179,000m
USA	ExxonMobil		pr		
USA	ChevronTexaco	6001 Bollinger Canyon Road, San Ramon, CA 94583	pr	53,000	(Sales) \$98,691m
UK	Cairn Energy PLC	50 Lothian Road EH3 9BY Edinburgh	pr	468	£110 m
UK	Premier Oil	23 Lower Belgrave Street SW1W 0NR London	pr	488	£199m
UK	SOCO International	Swan House 32-33 Old Bond Street W1S 4JQ London	pr	14	£26m

UK	Tullow Oil	5th Floor, 30 Old Burlington Street W1S 3AR London	pr	87	£113m
IT	Eni S.P.A	Piazzale Enrico Mattei 1 00144 Rome	pr/pu	80655	\$50322m
SP	Repsol YPF	Paseo de la Castellana, 278 28046 Madrid	pr	30110	€ 18640m
China	PetroChina Company Limited	World Tower, 16 Andelu, Dongcheng Beijing, 100011	pu	419598	\$29520

3.3 Structural Engineering

3.3.1 Building – Main Contractors

3.3.1.1 Arup

Arup was founded in 1946 and has developed from a core engineering business into a comprehensive planning, economics, transportation and engineering consultancy practice. Arup employ some 7,000 staff working in more than 70 offices through more than 70 permanent Arup offices. The company have major businesses in transport, planning, building engineering, industrial engineering, energy and in civil and structural engineering. Particular emphasis is placed on research and development activities. Services offered range from project management and complete engineering design to the supply of special engineering skills and advice. Project teams and individual engineers are skilled at integrating their work with that of client organisations, other consultants and contractors. In-house technical resources are available to staff for cost-effective support in the field as the needs of specific projects dictate. The firm is on the lists of approved consultants of the major aid agencies including the World Bank, the Asian Development Bank and the United Nations and its Agencies, and has carried out projects under their auspices. As project managers, engineering designers, and planners to a great range of both public and private bodies, Arup is engaged in project creation and development, feasibility studies, economic and physical planning, management, design and supervision of construction on various in the following typical types of project. Arup also has particular expertise in the application of spatial data for civil engineering applications.

3.3.1.2 Soletanche-Bachy

Soletanche-Bachy is a civil engineering contractor with a specialisation in geotechnical works, and has a leading position in this field at international level. Main fields of activities include : - deep foundations : piles, diaphragm walls, tunneling, construction of underground structures, tie-backs, etc - soil improvement techniques : grouting (consolidation, compaction, compensation, etc..) vibration, dynamic compaction, etc - environment : confinement of pollution, mitigation of polluted sites, inertization of wastes - real-time control / auscultation of construction sites Soletanche-Bachy has a strong commitment to R&D. Its R&D team is active in many fields : construction materials (concrete, drilling mud) , mechanical design and development of specialised construction equipment, embarked electronics systems, software development.

3.3.1.3 Other Main Contractors

Country	Name	Address	public (pu)/ private (pr)	Number of employees (year)	Turnover (year)
A	BAU Holding			30100 (2001)	€5,300 m
A	A Poor Aktiengesellschaft				€1,800 m
A	Alpine Mayreder Bau				€1,500 m
A	Swietelsky Baugells Chaft			3700 (2002)	€490 m
B	BUGECO	150, rue de la station B-1410 WATERLOO			
D	Phjilipp Holzmann				€6,400 m
D	Bilfinger Berger			50300 (2002)	€4,600 m
D	Walter Bau				€3,900 m
D	Strabag (Bau Holding)				€3,400 m
E	HBG Dragados			51500 (2001)	€10,000 m
E	Dragados				€5,500 m
E	FCC			52100 (2001)	€5,200 m

E	Ferrovial-Agroman			23500 (2001)	€ 4,200 m
E	ACS			30800 (2001)	€ 3,900 m
E	Acciona				€ 3,000 m
F	APPIA	143 avenue de Verdun 92442 ISSY-LES-MOULINEAUX cedex	N/A	N/A	N/A
F	BEM	ZA de Verlieu 42410 CHAVANAY	N/A	N/A	N/A
F	BERGERAT MONNOYEUR	117, rue Charles Michels - BP 169 93208 SAINT-DENIS cedex 01	N/A	N/A	N/A
F	BEUGNET (SNC GRANDS TRAVAUX)	8, rue du Dauphiné 69960 CORBAS	N/A	N/A	N/A
F	BOTTE SADE FONDATIONS	21, rue du pont des halles Delta 112 94536 RUNGIS CEDEX	N/A	N/A	N/A
F	BOUYGUES	1 avenue Eugène Freyssinet 78065 ST QUENTIN EN YVELINES Cedex	N/A	N/A	N/A
F	BOUYGUES - Division Travaux Publics	EC15 - Challenger -1, av. Eugène Freyssinet 78061 ST QUENTIN EN YVELINES Cedex	N/A	N/A	N/A
F	BOUYGUES - OFFSHORE	3 rue Stephenson 78180 MONTIGNY LE BRETONNEUX	N/A	N/A	N/A
F	BOUYGUES CONSTRUCTION	1, Avenue Eugène Freyssinet 78280 GUYANCOURT	N/A	N/A	N/A
F	BRUNONE & TRAON	ZAC de la Garenne-Léo Lagrange 27950 SAINT MARCEL	N/A	N/A	N/A
F	BUDILLON RABATELSA	Rue de la Chartreuse 38500 VOIRON	N/A	N/A	N/A
F	BUESA FORATION MINAGE	Rue Rene Gomez Zone Industrielle	N/A	N/A	N/A

	B.F.M	34500 BEZIERS			
F	CHANTIERS MODERNES	40, avenue des terroirs de France 75611 PARIS CEDEX 12	N/A	N/A	N/A
F	DEGUSSA-HÜLS FRANCE	37-39 Avenue Marceau 92400 COURBEVOIE	N/A	N/A	N/A
F	DEHE TP	51, boulevard de la Republique 78400 CHATOU	N/A	N/A	N/A
F	DUMÉZ France	57, avenue Jules Quentin 92022 NANTERRE CEDEX	N/A	N/A	N/A
F	EIFFAGE	2, rue de Laborde 75418 PARIS CEDEX 08	N/A	N/A	N/A
F	EIFFAGE CONSTRUCTION	3, avenue Morane Saulnier 78140 VELIZY VILLACOUBLAY CEDEX	N/A	N/A	N/A
F	ETPO	3, place du Sanitat 44100 Nantes	N/A	N/A	N/A
F	EUROVIA	18, place de l'Europe 92500 RUEIL MALMAISON	N/A	N/A	N/A
F	FAYAT GROUP	137, rue du Palais-Gallien - BP 28 33029 BORDEAUX Cedex	N/A	N/A	N/A
F	FREYSSINET France	10, rue Paul Dautier 78140 VELIZY	N/A	N/A	N/A
F	FREYSSINET INTERNATIONAL & cie	1, bis rue du Petit Clamart- BP 135 78148 VELIZY Cedex	N/A	N/A	N/A
F	JEAN LEFEBVRE	11, bd Jean Mermoz 92202 NEUILLY-sur-SEINE Cedex	N/A	N/A	N/A
F	LAFARGE	61, rue des Belles Feuilles - BP 40 75782 Paris Cedex 16	N/A	N/A	N/A

F	NORD FRANCE	rue de la Tourelle LONGPONT sur Orge 91314 MONTLHERY cedex	N/A	N/A	N/A
F	SACER	50, place Marcel Pagnol 92653 BOULOGNE Billancourt cedex	N/A	N/A	N/A
F	SOLETANCHE BACHY	6, rue de Watford - BP 511 92005 NANTERRE Cedex	N/A	N/A	N/A
F	SPIE BATIGNOLLES	10, av de l'Entreprise - Pole Vinci 95863 CERGY PONTOISE CEDEX	N/A	N/A	N/A
FIN	Yit Corporation				€ 1,600 m
FIN	Lemminkainen Group				€ 1,100 m
FIN	NCC OU			28200 (2001)	€ 630 m
I	Impreglio			16900 (2002)	€ 2,500 m
I	Condotte D'Acqua				€ 532 m
NL	HBG Dragados				€ 5,600 m
NL	KVWS				€ 3,100 m
NL	BAM NBM			7500 (2000)	€ 2,900 m
NL	Ballast Nedham			6500 (2002)	€ 2,300 m
NL	Heijmans			9500 (2002)	€ 2,300 m
P	Somague Engenharia			1600 (2001)	€ 580 m

P	Teixeria Duarte				€410 m
P	Soares Da Costa				€330 m
PO	BUDIMEX SA	ul. Marszalkowska 82 00-517 WARZAWA			
UK	Balfour Beatty				€5,000 m
UK	Taylor Woodrow			6000 (2002)	€3,500 m
UK	Carillion			13800 (2002)	€3,200 m
UK	Mowlem			16600 (2002)	€2,700 m
UK	Laing			1700 (2001)	€2,300 m

3.3.2 Building – Specialist Contractors

Country	Name	Address	public (pu)/ private (pr)	Number employees (year)	of Turnover (year)
A	Bauer Spezialtief GesmbH				
A	Bilfinger + Berger Bauges MbH				
A	Bohr-u Injektionstechnik GesmbH				

A	Keller Grundbau GesmbH				
A	Soletanche Spezialtiefbau GesmbH				
D	Bauer Speciltiefbau GmbH			3800	€ 600m
D	Bilfinger + Berger Bau AG				
D	Keller Grundbau GmbH				
E	Bauer Cimentaciones y Equipos SA				
E	Geotecnica y Cimientos SA (Geocisa)				
E	Rodion Cimentaciones Especiales AS				
I	Rodio SpA				
I	Trevi SpA				
I	Eurogeo SRL				
NL	Ballast Nedam Funderingstechnieken bv				

NL	Franki Grondtechnieken bv				
NL	HBH Civil Ground Technique				
P	Belbetoes Fundacoes e Betoas Especinas Lda				
P	Geosoc – Geotechnica e Fundacoes SA				
P	Sondagens Rodio Lda				
P	Tecnasol – FGE, Fundacoes e Geotecnica SA				
UK	AMEC			170	£ 54 m
UK	Bachy Soletanche Ltd				
UK	Cementation Foundations Skanska				
UK	Roger Bullivant Ltd			800	£ 69 m
UK	Keller Ground Engineering			350	-
UK	May Gurney (Technical Services)			117	£ 15 m

3.3.3 Building – Maintenance Contractors

Country	Name	Address	public (pu)/ private (pr)	Number employees (year)	of Turnover (year)
A	ALSTOM Austria AG			29,000	€4,000 m
D	Siemens Transportation Systems Ltd.			17,000	€4,300m
D	ALSTOM LHB GmbH			29,000	€4,000 m
E	ALSTOM Transporte, S.A			29,000	€4,000 m
FIN	ALSTOM Transport			29,000	€4,000 m
I	ALSTOM Transport SpA			29,000	€4,000 m
NL	ALSTOM Transport Netherlands B.V.			29,000	€4,000 m
P	ALSTOM Portugal, S.A.			29,000	€4,000 m
P	Jarvis Infrastructure Services				
P	Balfour Beatty Rail			7000	£300m
UK	Jarvis				

UK	Balfour Beatty Rail Maintenance				
UK	UK Highways				
UK	Carillon				
UK	AMEY Highways				
UK	AMEC				

3.3.4 Building – Engineering Consultants

Country	Name	Address	public (pu)/ private (pr)	Number of employees (year)	Turnover (year)
A	Geoconsult			300	€ 25 m
D	Bertrandt AG			3000	€ 220 m
D	Rucker AG			1600	€ 133 m
D	Siepe Group			1000	€ 100 m
D	Obermeyer Planen+ Beraten GmbH			1000	€ -
E	IDOM Group			1300	€ 211 m
E	Sener Grupo de Ingenieria			950	€ 185 m

E	TYPSA Tchnica y Proyectos SA			700	€50
E	Trcnicas Reunidas SA			1650	€ -
E	Prointec SA			550	€32 m
E	Intecsa-Inarsa SA			450	€37
F	AGE Environnement	1, rue Dieudonné-Costes, Beausoleil 82000 MONTAUBAN			
F	BDI - KP1	M.I.N. - Bâtiment D - 135, Avenue Pierre Sémard 84000 AVIGNON			
F	BRL Ingénierie	1105, Avenue Pierre Mendès France 30000 NIMES			
F	BUREAU D'ETUDES CONSEIL (BEC)	Immeuble Atalis 2 3D, Rue de Paris 35510 CESSON SEVIGNE			
F	Bureau d'études et d'expertise	44, rue de Cronstadt 75015 PARIS			
F	Compagnie générale de géophysique (CGG)	1, rue Léon Migaux 91341 MASSY cedex			€700 m
F	E.E.G SIMECSOL	18, rue Troyon F-92316 SEVRES CEDEX			
F	FUGRO Géotechnique	26, av des champs Pierreux 92002 NANTERRE Cedex			
F	GAUDRIOT IGENIEURS CONSEILS	7, avenue Henri Becquerel Parc Kennedy 33700 MERIGNAC			
F	GEOTEC SA	70, bd de Reuilly 75012 PARIS			
F	SCETAURROUTE	11, Avenue du centre 78286 GUYANCOURT			

F	SOLEN	16, allée Prométhée Les Propylées BP 169 28003 CHARTRES Cedex		
FIN	Jaakko Ppyro Group inkl intressebolag		4500	€ 430 m
FIN	Olof Granlund group		264	€ 15 m
FIN	Suunnittelukeeskus Oy		260	€ 20 m
FIN	Finnmap Consulting Group		250	€ 16 m
I	Metropolitana Milanese SpA		240	€ 96
I	C Lotti & Associati – Soc. De Ingegneria SpA		180	€ 21
NL	Arcadis Group		7600	€ 797 m
NL	Fugro NV		6500	€ 910 m
NL	Grontmij Group		4000	€ 511 m
NL	DHV Group		3400	€ 300 m
NL	Royal Haskoning Group		2100	€ 171 m
NL	Tebodin Consultants & Engineers		2000	€ 140m
UK	WS Atkins		15,000	€ 1300 m
UK	Arup Group		6200	€ 519 m

UK	Mott MacDonald Group			5300	€573 m
UK	WSP			5000	€374
UK	Halcrow			3300	€240 m

3.3.5 Utilities – Gas

Country	Name	Address	public (pu)/ private (pr)	Number of employees (year)	Sales in M€ (year)	Thousands of customers (year)	Percentage of consumers in the country (year)
B	Distrigaz	Rue de l'Industrie, 10 B-1000 Bruxelles	pr		3,460 (2002)		
D	Ruhrgas AG	Huttropsrasse 60 - D 45138 Essen	pr	12,514 (2002)	11,924 (2002)		
D	RWE AG	Opernplatz 1 - D 45128 Essen	pr	2,795 (2002)	6,249 (2002)		
D	E.ON Energy AG	Brienner Str. 40 – D 80333 München	pr	45,394 (2002)	18,585 (2002)	10,000 (2002)	
E	Gas Natural SDG, S.A.	Avenida de America, 38 - 10th floor - E 28028 MADRID	pr	6,000 (2002)	5,268 (2002)	8,105 (2002)	
E	Iberdrola	Calle Gardoqui 8 - E BILBAO	pr	9,685 (2001)	8,113 (2001)	16,000 (2003)	7.3 (2001)
F	Gaz de France (GDF)	23, Rue Philibert Delorme - F 75017 PARIS	pu	37,853 (2002)	14,540 (2002)	14,000(2003)	

I	ITALGAS S.p.A.	Corso Regio Parco, 11 - I 10152 TORINO TO	pu/pr	9,760	3,715 (2001)	6,935 (2001)	
I	Edison Gas S.p.A.	Foro Buonaparte, 31 - I 20121 MILANO MI	pr	29,856 (2001)	15,790 (2001)	170(2001)	6 (2001)
NL	N.V. Nederlandse Gasunie	Van Ketwich Verschuurlan 98 - NL 9721 SW Groningen	pu/pr	1,390 (2002)	10,725 (2002)		
NL	Nuon NV	Spaklerweg 20 - NL 1096 BA Amsterdam	pu/pr	9,924 (2002)	4,728 (2002)	2,700 (2002)	35 (2002)
P	Galp Energia, SGPS, SA	Edificio Galp Energia - Rua Tomás da Fonseca - P 1600-209 LISBOA	pu/pr		6,880 (2001)	3,536 (2001)	

3.3.6 Utilities – Electricity

3.3.6.1 ENEL.NewHYDRO

ENEL.NewHYDRO Srl is a Company of ENEL SpA, one of the largest utilities in the world whose main business interest is the production (82% of the country's total) and distribution of electric energy and the construction of related plants. In the frame of ENEL Group, ENEL.NewHYDRO brings all competences required to produce both designs and activities in the sectors of large works and networks management: basic studies (data collection, material technology, numerical models), preliminary and final design, construction, directing and managing works, design and implementation of information systems.

ENEL.NewHYDRO has been partnered with ISMES expertise, who has more than 50 years experience in the structural, environmental and territory engineering sectors.

The following fields of activity may summarise the Company's major specialisation areas:

- Environmental and land management, directed towards environmental compatibility and impact assessment, sizing and siting of monitoring networks for hydrogeological parameters and water quality control, risk analysis (social and economic analysis, territorial vulnerability, damage scenarios), civil protection planning, land use planning, remediation of polluted sites and landfills, reclaiming of degraded sites.
- Civil engineering, directed toward the planning, design, management and supervision of construction activities.
- Information systems: planning, development and implementation of integrated information systems (Databases and GIS application, Decision Support System).
- Applied investigation, directed towards the study of complex problems, acquisition of innovative technologies in the field of environment, materials and structures characterisation, development of software for the data management and elaboration and numerical modelling.

3.3.6.2 Other Utilities – Electricity

Country	Name	Address	public (pu)/ private (pr)	Number of employees (year)	Sales in M€ (year)	Thousands of consumers (year)	Percentage of consumers in the country (year)
B	Electrabel	Boulevard du Régent, 8 1000 Bruxelles	pr	14933 (2002)	15090 (2002)	4,161 (2002)	
D	RWE AG	Opernplatz 1 - D 45128 Essen	pr	69,441 (2002)	24,325 (2002)	10,000 (2002)	
D	E.ON Energy AG	Brienner Str. 40 – D 80333 München	pr	45,394 (2002)	18,585 (2002)		
D	Energie Baden-Württemberg Aktiengesellschaft (EnBW) AG	Durlacher Alee 93 - D 76131 Karlsruhe	pr	38,493 (2002)	6884 (2002)	900 (2003)	
D	Vattenfall Europe AG	Chaussestrasse 23 - D 1015 Berlin	pr	18,000 (2002)	10,925 (2002)		
E	ENDESA S.A.	C/ Príncipe de Vergara, 187 - E 28002 MADRID	pu/pr	26,354 (2002)	16,739 (2002)	20,399 (2003)	67
E	Iberdrola	Calle Gardoqui 8 - E BILBAO	pr	9,685 (2001)	8,113 (2001)	16,000 (2003)	
E	UNION FENOSA S.A.	Avda.de San Luis nº 77 - E 28033 MADRID	pr	23,374 (2002)	5,831.2 (2002)	8,261 (2002)	
F	Electricité de France (EDF)	22-30 avenue de Wagram - F 75008 PARIS	pu	172,000 (2002)	48,359 (2002)	46,700 (2002)	95 (2002)
I	Enel S.p.A.	Viale Regina Margherita, 137 - I 00198 ROMA RM	pu/pr	64,233 (2001)	29,977 (2002)	29,033 (1997)	68 (2001)

I	Acea S.p.A.	Piazzale Ostiense, 2 - I 00154 ROMA RM	pu/pr	4,973 (2001)	1,308 (2002)	1,501 (2002)	
I	Edison S.p.A.	Foro Buonaparte, 31 - I 20121 MILANO MI	pr	29,856 (2001)	15,790 (2001)	2,5 (2001)	12.3 (2001)
I	AEM S.p.A.	Corso di Porta Vittoria, 4 -20122 MILANO MI	pu/pr	3,081 (2002)	1,450.5 (2002)	1,713 (2002)	
I	AEM Torino S.p.A.	Via Bertola 48 - I 10122 TORINO TO	pu/pr	1,429 (2002)	502 (2002)	530 (2001)	
NL	Nuon NV	Spaklerweg 20 - NL 1096 BA Amsterdam	pu/pr	9,924 (2002)	4,728 (2002)	2,700 (2002)	35 (2002)
S	Vattenfall AB	SE-162 87 - Stockholm	pu	33,900 (2002)	10,925 (2002)	6,000 (2002)	50
UK	Centrica	Charter Court, 50 Windsor Road SL1 2HA Slough, Berkshire	pr	38,051 (2002)	N/A	N/A	N/A
UK	International Power Plc	Senator House, 85 Queen Victoria Street EC4V 4DP London	pr	2,300 (2002)	N/A	N/A	N/A
UK	Scottish and Southern Energy Plc	Inveralmond House, 200 Dunkeld Road PH1 3AQ Perth	pr	9,474 (2002)	N/A	N/A	N/A
UK	Scottish Power	1 Atlantic Quay, G2 8SP, Glasgow	pr	13,825 (2002)	N/A	N/A	N/A
UK	Viridian Group	120 Malone Rd., BT9 5HT, Belfast	pr	3,139 (2002)	N/A	N/A	N/A
UK	National Grid	1-3 Strand WC2N 5EH London	pr	27,308 (2003)	N/A	N/A	N/A

3.3.7 Utilities – Water

Country	Name	Address	public (pu)/ private (pr)	Number of employees (year)	Sales in M€ (year)	Thousands of customers (year)	Percentage of customers in the country (year)
B	Compagnie Intercommunale Bruxelloise des Eaux (CIBE)	70, rue aux Laines - B 1000 - Bruxelles	pu/pr	1464 (2003)	162 (2002)	2,100 (2003)	
B	Société wallonne des eaux	41, rue de la Concorde, 4800 - VERVIERS					
F	Veolia Water	52, rue d'Anjou - F 75008 PARIS	pr	67,000 (2001)	13,641 (2001)	110,000 (2001)	
F	ONDEO	18, place Edouard VII - F 75316 Paris cédex 9	pr	17,670 (2001)	10,100 (2002)	125,000 (2003)	
F	Saur Group	Challenger - 1, avenue Eugène Freyssinet - F 78064 St-Quentin-en-Yvelines cedex	pr	25,600 (2001)	2,346 (2002)	36,000 (2003)	
F	SOCIETE CANAL DE PROVENCE	BP 100, 13603 AIX-EN-PROVENCE	pu/pr				
I	Acea S.p.A.	Piazzale Ostiense, 2 - I 00154 ROMA RM	pu/pr	4,973 (2001)	1,308 (2002)	6,000 (2002)	13
NL	Nuon NV	Spaklerweg 20 - NL 1096 BA Amsterdam	pu	9,924 (2002)	4,728 (2002)	2,700 (2001)	
UK	Thames Water	Clearwater Court - Vastern Road - GB	pr	11,907 (2002)	2,850 (2002)	70,000 (2003)	

		Reading, Berkshire RG1 8DB					
UK	KeldaGroup	Western House- Halifax Road BD6 2SZ Bradford	pr	3,258 (2003)	N/A	N/A	N/A
UK	Pennon Group	Peninsula House, Rydon Lane EX2 7HR Exeter, Devon	pr	2,562 (2002)	N/A	N/A	N/A
UK	Severn Trent	2297 Coventry Road B26 3PU Birmingham	pr	14,647 (2003)	N/A	N/A	N/A
UK	United Utilities	Great Sankey WA5 3LW Warrington	pr	13,893 (2002)	N/A	N/A	N/A
UK	AWG	Anglian House, Ambury Road - Cambridgeshire PE29 3NZ Huntingdon	pr	12,386 (2002)	N/A	N/A	N/A

3.3.8 Transport

Country	Name	Address	public (pu)/ private (pr)	Number employees (year)	of Sales in M€ (year)
B	SNCB Société Nationale des Chemins de fer Belges	85, Rue de France 1060 - Bruxelles	pu	N/A	N/A
D	Federal Highway Research Institute (BAST)	Brüderstraße 53 D-51427 Bergisch Gladbach	pu	400	

D	Deutsche Bahn AG	Potsdamer Platz 2 D 10785 Berlin	pu	N/A	N/A
D	Autobahndirektion Südbayern	Seidlstraße 7-11 80335 München	N/A	N/A	N/A
D	Autobahndirektion Nordbayern	Flaschenhofstraße 55 90402 Nürnberg	N/A	N/A	N/A
E	Autopista Central Gallega	C/ Fernando III El Santo, 32 – bajos 15701 Santiago de Compostela	pr		
E	Autopistas II	C.E.S.A. Av. del Parc Logistic 12-20 08040 Barcelona	pr		
E	AUCALSA	Autopista Concesionaria Astur-Leonesa, S.A. C/ Gil de Jaz, 10 33004 Oviedo	N/A	N/A	N/A
E	AUCAT	Autopistes de Catalunya, S.A.C.G.C. Av. del Parc Logistic 12-20 08040 Barcelona	N/A	N/A	N/A
E	AUDASA	Autopistas del Atlántico, Concesionaria Española, S.A. C/ Alfredo Vicenti, 15 15004 La Coruña	N/A	N/A	N/A
E	AUDENASA	Autopistas de Navarra, S.A. Pl. Conde de Rodezno, 8 31004 Pamplona	N/A	N/A	N/A
E	AULESA	Autopistas de León, S.A. Concesionaria del Estado. Avda. de los Reyes Leoneses, 14, 6ºS 24008 León	N/A	N/A	N/A
E	AUMAR	Autopista Aumar Sociedad Anónima Concesionaria del Estado	N/A	N/A	N/A

		Paseo de la Alameda, 36 46023 Valencia			
E	AUTEMA	Autopista Terrassa-Manresa, S.A. C.G.C. Gran Vía de les Corts Catalanes, 680 Átic 08010 Barcelona	N/A	N/A	N/A
E	AUTOPISTA DEL SOL	Autopista del Sol, Concesionaria Española, S.A. C/ Príncipe de Vergara, 132 -10º 28002 Madrid	N/A	N/A	N/A
E	AVASA	Autopista Vasco-Aragonesa, Concesionaria Española, S.A. Barrio Anuntzibai, s/n 48410 Orozko (Vizcaya)	N/A	N/A	N/A
E	CASTELLANA AUTOPISTAS	DE Castellana de Autopistas, S.A. Concesionaria del Estado C/ Pío Baroja, 6 – 4º 28009 Madrid	N/A	N/A	N/A
E	EUROPISTAS	Europistas, Concesionaria Española, S.A. Capuchinos de Basurto, 6 – 4º 48013 Bilbao	N/A	N/A	N/A
E	IBERPISTAS	Ibérica de Autopistas, S.A. C/ Pío Baroja, 6 – 4º 28009 Madrid	N/A	N/A	N/A
E	EJE AEROPUERTO	Autopista Eje Aeropuerto, C.E.S.A. Cañada Real de las Merinas 13, 4ª planta 28042 Barajas (Madrid).	N/A	N/A	N/A
E	AUTOPISTA MADRID SUR	Autopista Madrid Sur S.A. Plaza Manuel Gómez Moreno, 2 Edificio Alfredo Mahou Planta 7 28020 Madrid	N/A	N/A	N/A

E	HENARSA	Autopista del Henares, S.A. Concesionaria del Estado Golfo de Salónica, 27 - 7ªPL. 28033 Madrid	N/A	N/A	N/A
E	GRUPO ENA	Empresa Nacional de Autopistas, S.A. C/ Serrano, 45 28001 Madrid	pr	N/A	N/A
E	Ferrovial	C/Príncipe de Vergara, 135 Madrid-28002	pr	28,454	
F	REGIE AUTONOME DES TRANSPORTS PARISIENS	21 Bd Bourdon 75004 - PARIS		N/A	N/A
F	SNCF Société Nationale des Chemins de fer Français	Dept.des Ouvrages d'Art du Patrimoine 122, rue des Poissonniers 75876 - PARIS CEDEX 18	pu	N/A	N/A
F	AEROPORTS DE PARIS	291, bd Raspail - 75675 - PARIS cedex 14	pu	N/A	N/A
F	ATMB Autoroutes et Tunnel du Mont Blanc	100, avenue de Suffren 75015 PARIS	pu/pr	N/A	N/A
F	COFIROUTE	6-10 rue Troyon 92316 SEVRES cedex	pu/pr	N/A	N/A
F	SAPRR	36, Rue du Docteur Schmitt 21850 SAINT APOLLINAIRE	pu/pr	N/A	N/A
F	Société des autoroutes du Nord et de l'Est de la France	100, avenue de Suffren 75015 PARIS	pu/pr	N/A	N/A
F	Société des autoroutes du sud de la France	100, avenue de Suffren 75015 PARIS	pu/pr	N/A	N/A
F	Société des autoroutes Estérel Côte d'Azur	100, Avenue de Suffren 75015 PARIS	pu/pr	N/A	N/A
F	Société des autoroutes Estérel	41 bis av bosquet	pu/pr	N/A	N/A

	Côte d'Azur	75007 PARIS			
F	Société des autoroutes Paris-Normandie	100 avenue de Suffren 75015 PARIS	pu/pr	N/A	N/A
F	Société des autoroutes Rhône-Alpes	260, avenue Jean Monnet - BP 48 69671 Bron cedex	pu/pr	N/A	N/A
I	Autostrade S.p.A.	Limite di Campi Bisenzio - Florence C.P. 2310 - 50100 Firenze	N/A	N/A	N/A
I	Autostrada del Brennero	10, Via Berlino I 18100 Trento	N/A	N/A	N/A
I	Autostrada Torino Milano	165, Corso Regina Margherita 10144 Torino	N/A	N/A	N/A
I	Autostrada Torino-Savona	170, Corso Trieste 10024 Moncalieri (TO)	N/A	N/A	N/A
I	Autostrada Centro Padane	Via S. Felice I 26100 Cremona(CR)	N/A	N/A	N/A
I	Pedemontana - Autostrada Pedemontana Lombarda	36, Via Carducci Giosue' I 20123 Milano (MI)	N/A	N/A	N/A
I	S.I.T.A.F	2, Regione S. Giuliano I 10059 Susa (TO)	N/A	N/A	N/A
I	Societa' Autostrade di Venezia E Padova	64/A, Via Bottenogo 30100 Venezia (VE)	N/A	N/A	N/A
P	Rede Ferroviária Nacional	Estação Sta. Apolónia 1100-105 Lisboa	pr	N/A	N/A
UK	Highways Agency	Romney House 43 Marsham Street London SW1P 3HW	pu	N/A	N/A

UK	Network Rail	40 Melton Street London NW1 2EE	pr	13,000	
UK	BAA PLC	130 Wilton Road SW1V 1LQ London	pr	11,905 (2002)	
UK	Associated British Ports	150 Holborn St. EC1N 2LR Londres	pr	3,536 (2002)	
UK	Forth Ports	Tower Place, Leith EH6 7 DB Edinburgh	pr	1,294 (2001)	
UK	TBI	159 New Bond Street W1S 2UD London	pr	2,153 (2002)	