Eastern Europe
Since 1996 Roughton has been providing services to the Transport Sector in Eastern Europe, predominantly for Government bodies and Funding Agencies.

This booklet first gives a broad overview of all the worldwide sectors Roughton has served, and continues to serve, since its inception in 1952, followed by a more detailed illustration of some of the projects we have undertaken in Eastern Europe over the past 5 years.

Since 1996 our Eastern European portfolio has extended to the following projects:

- Implementation Assistance, Moldova
- Lenders Monitoring Consultant, Albania
- Supervision of the Construction for Firat TDZ, Turkey
- Supervision of Corridor 5c Motorway, Sub-section Zvirovici-Bijaca, Bosnia & Herzegovina
- Framework for Concessions (Contracts) for Performance based Road Maintenance, Georgia
- Provision of Terms of Reference for Preliminary Design & Studies for specific Road Sections in BiH, Bosnia & Herzegovina
- Updating TS, FS, BD and EMP for Balti-Sarateni Road, Moldova
- Assistance in Implementation of Road Projects, Bosnia & Herzegovina
- Design and Construction Supervision of Lot B: DN15 Reghin - Toplita and DN12 Toplita - Chichis, Romania
- Supervision Road Rehabilitation Works and Environmental Monitoring, Serbia
- Lifeline Roads Improvement Project 2011, Armenia
- Rreshen - Kalimash Motorway, Albania
- Preparation of Feasibility Study and Business Plan, Georgia
- Preparation of Design for Reconstruction of Priority Sections of REBIS Core Network Roads, Bosnia & Herzegovina
- Design of Reghin Bypass, Romania
- Technical Assistance for Feasibility Study, Detailed Engineering Design and Tender Documentation, Romania
- Gjirokaster - Tepelene Road Realignment, Albania
- FS and EIA for Buna - Neum Road, Bosnia & Herzegovina
- Secondary and Local Roads Project Preparation, Albania
- Output and Performance-based Road Maintenance, Albania
- Modernisation of County Road 172D, Gradinita - Cosna, Romania
- Samtskhe - Javakheti Roads Rehabilitation Project, Georgia
- Management and Site Supervision of Works financed under PHARE 2002 ESC, Romania
- Management and Site Supervision of Works financed under PHARE 2003 ESC, Romania
- Modernisation of County Road 108U, Romania
- Rehabilitation of County Road 670 Negoiesti - Floresti (DN 67), Romania
- Feasibility Studies and Detailed Design for Road Rehabilitation, Moldova
- Russia Roads Sector Reform Project Evaluation, Russia
- Podgorica-Kula Road Rehabilitation Construction Supervision, Montenegro
- Road User Charges Study, Kosovo
- Skopje Bypass kfW Mission, Macedonia
- Project Preparation, Rural Roads Improvement Programme, Georgia
- EIB Third Road Project, Romania
- Podgorica-Kula Road Rehabilitation Study, Montenegro
- Pavement Management System, Moldova
- Roads Needs Study, Moldova
For over 60 years we have successfully delivered numerous physical and social infrastructure solutions, and engineering design projects to our clients in Africa, Asia, Eastern Europe, Latin America, Middle East, the Caribbean, and the Pacific.

Our dedicated and experienced staff are key to the successful delivery of the services we provide. As a result we have earned an enviable reputation for innovation, efficient and cost effective design solutions and project delivery.

Our mission is to be a leading consultancy, exceeding Client expectations through staff innovation, staff development and financial stability.

Our independence ensures a personal business relationship with Clients. We recognise that the key elements of service include:

- Sound technical knowledge of the services involved
- A high level of co-operation, co-ordination and communication with both Client representatives and end users
- Fast and effective response
- Development and implementation of cost effective solutions to the diverse problems that may be encountered
- Ensuring that all works are carried out to programme and within budget
- Maintaining the highest standards throughout the project life time
- In-depth understanding of complex specifications and project environments

In order to more effectively manage Eastern European operations, an office was established in Sarajevo, Bosnia & Herzegovina in ?????. It is Directed by Edin Begovic, who has been instrumental in developing Roughton in the region since 2006.
An independent organisation founded in 1952, Roughton has built a reputation for efficiency, value for money, innovation and timely project delivery.

Excellent client relationships and long term fostered business partnerships worldwide have made Roughton a unique brand.

In the UK our public sector client list includes numerous NHS trusts, local authorities and ministries. Banks and major construction contractors are found amongst our growing private sector list.

Further afield, Roughton has successfully delivered projects funded by all the major IFIs. Projects include; urban development project in Lagos in Nigeria, asset management projects in Uganda, development of the Jamaica Inner City Basic Services, Institutional Strengthening projects for the Frontier Highways Authority of Pakistan, the China to Europe highway in the Republic of Kazakhstan, various infrastructure projects in India, Sri Lanka and over 100 other countries.

We are providing Transaction Advisory services on PPP and PFI projects for several governments and private developers in a number of countries including Georgia, Nigeria and India.

With our Associates, V&V Group, we have developed nROMAPS, a complete asset management system. Over the past 20 years, it has been translated into several languages, including Russian, to provide an effective framework for road and asset management and maintenance organisations to work within.

From undertaking the smallest bridge inspection to providing expertise on the largest and most complex infrastructure projects, we will provide the same level of professionalism and client care.
buildings and infrastructure

We provide a full range of in-house buildings expertise including structural engineering, building services and quantity surveying.

A significant proportion of our buildings workload is comprised of public sector clients including local authorities and ministries.

We have particular understanding of the special requirements of the health care sector for environments and engineering services which do not put patients or staff at risk. We are familiar with the regulations applicable to laboratories, operating theatres, medical gases and complex hospital environments. We also have a track record in projects for residential care, health centres, clinics and outpatient departments.

In partnership with other consultants we provide input to the preparation of Private Finance Initiative (PFI) bids, and feasibility studies for DBFO and BOOT projects. We understand the nuances and needs of local authority developments in obtaining private funding.

Our international experience in social housing encompasses projects with wide variations in design requirements and socio-economic impact, including refurbishing inner-city apartments in the UK, upgrading squatter settlements in Malawi and rehabilitating government housing in Bhutan. Our aim is to produce relevant buildings and infrastructure design using appropriate technology to produce a sympathetic environment for owners, users, and visitors.

Our approach to engineering project management means that a director is closely involved from the start of the project through to completion.
The debate over the degree to which human activities are affecting global warming still rages but at Roughton we are focused on practical realities, such as the consequences of the depletion of irreplaceable fossil fuels, the cost of inefficient energy use and flooding caused by inappropriate landscaping. Our services are therefore based on a practical, common sense approach. In doing so we also aim to benefit the local ecology and environment.

Roughton has a detailed understanding of the value of infrastructure relating to energy production, transmission and consumption minimisation. Our civil engineering expertise has delivered many major energy projects in the UK and overseas with core strengths in the power, nuclear and water sectors.

With energy production, the need for responsible use of energy arises. The combination of our sustainability consultancy services, energy market experts and building science teams means we can provide valuable advice to our clients regarding the most economic and efficient uses of energy. This often results in a more efficient and sustainable overall scheme design.
A clean water supply is the single most important determinant of public health. Roughton has extensive experience of water development projects throughout the world in both developed and developing economies and provides specialist technical assistance at all stages of the project cycle.

Roughton offers a multi-disciplinary, fully integrated development approach to planning, design, operation and maintenance in the following areas:

- Water supply
- Water treatment
- Water distribution
- Wastewater
Roughton has established a leadership position in developing countries with the breadth and depth of experience generated within the company.

Our PPP and PFI expertise areas include highways, rail, aviation, port, water, health and education sectors. Services range from project inception, including planning and strategic financing, through the design, construction, operations and maintenance stages.

PPP consultancy is among the core services available to our clients including; national, regional and local governments; transport authorities; public organisations such as health and education authorities; and private companies.

Roughton’s success lies in its ability to innovate continually across the full range of its PPP consultancy activities. Roughton has a track record of leading and delivering PPP advisory services with widely differing degrees of complexity from small project finance transactions to large, multi-faceted projects.
In the last twenty years alone, we have completed over 300 road and bridge projects in 88 countries, many of which have been major infrastructure projects. Others have been smaller or lower volume roads, but nevertheless are locally vital transport links.

Highways
Roughton's highways experts work as a team with a holistic approach that identifies innovative ideas at the early stages of a project. Our appropriate design software and approach ensures accuracy and, with our project management skills, provides cross discipline collaboration where we are trusted to attain cost effective, sustainable solutions, to meet our Client’s goals and aspirations.

Rural Roads
The benefits from improving the rural road networks and providing year-round, reliable access include; social, environmental, and whole life cost benefits, one of the most important being the long-term benefit of poverty alleviation.

Bridges
Roughton can demonstrate extensive project experience in terms of both geography and range of bridge engineering services. Our expertise enables us to determine cost-effective solutions appropriate to the use of the bridge, its location and the experience of the constructor.

Our expertise includes:
- Hydrology and hydraulics
- Design and construction
- Maintenance and management
- Inventories and condition surveys
- Assessment for structural integrity and load capacity
Roughton has extensive expertise in the provision of the following services:

Bridge engineering • Construction supervision • Contract administration • Design review • Detailed design • Economic feasibility and analysis • EIA • Engineering review • Feasibility study • Feasibility study review • Geotechnical engineering • Highway engineering • Pavement evaluation • PPP viability study • Preliminary engineering design • Project management • Provision of Resident Engineer • Provision of Team Leader • Resettlement • Technical assistance • Transaction Advisory Services
Roughton engineers have a sound knowledge of the issues and limitations of the railway environment.

Rail projects create a range of unique challenges which are well understood by our economists whether for mainline (freight and/or passenger traffic), commuter or mass transit systems (heavy or light rail). We have the resources and experience to develop practical and cost effective planning solutions for all types of main line railway including upgrades and new lines.

Roughton has the capability to review and analyse a project’s financial and commercial feasibility and funding requirements; to provide bid documentation and evaluate commercial bids; to advise on the raising of finance; to participate in the negotiation of financial loan agreements and commercial contracts; and to conduct monitoring and supervision of a project during the construction stage.

Roughton is proud to be playing a key role in the revitalisation of Nigerian Railways which will become a key driver in support of economic growth.

The company is ambitious to expand its professional services offering in the rail sector and is currently exploring a number of further opportunities both in the UK and overseas.

Internationally we are focused on building on our local presence in Eastern Europe Africa and Asia.

We have an extensive data base of in-house resources, partners and associates allowing us to offer a comprehensive range of services to all our rail clients.

Roughton has been providing services to the rail sector in the UK for many years, particularly to London Underground Limited (LUL). In 1991 Roughton was awarded a two year commission for civil engineering services by LUL and has been providing technical assistance as an approved consultant ever since.
Since 1991 approximately 1000 rail related commissions of varying types and sizes have been completed successfully for various clients. Services provided include:

- Structural assessment and inspection
- Geotechnical investigations
- Track drainage schemes
- Civil and structural design
- Construction supervision
Since the late 1990s Roughton has built an enviable reputation with Clients, predominantly in the Transport sector.

Our geographical spread in this region extends across the following countries:

Bosnia & Herzegovina ● Georgia ● Kosovo ● Macedonia ● Moldova ● Montenegro
Romania ● Russia ● Serbia ● Turkey ● Albania ● Armenia

The following pages give an illustration of some of our more recent projects, as listed below:

● Design and Construction Supervision of Lot B: DN15 Reghin - Toplita and DN12 Toplita - Chichis Road Rehabilitation, Romania
● Supervision of Corridor 5c Motorway, Sub-Section Zvirovici - Bijaca, Bosnia & Herzegovina
● Rreshen - Kalimash Motorway Project Management, Albania
● Preparation of Design for Reconstruction of Priority Sections of REBIS Core Network Roads, Bosnia & Herzegovina
● Supervision of Road Rehabilitation Works and Environmental Monitoring, Serbia
● Supervision of 5 Court Buildings, Romania
● Implementation Assistance to State Road Directorate, Moldova
● Supervision of Design-Build Contract for Sasadilo - Sioni Road, Georgia
● Feasibility Studies and Detailed Design for Road Rehabilitation, Moldova
● Lifeline Roads Improvement Project 2011, Armenia
● Assistance in Implementation of Road Projects, Bosnia & Herzegovina
● Preparation of Feasibility Study and Business Plan, Georgia
current and recent projects

Design and Construction Supervision of Lot B: DN15 Reghin - Toplita and DN12 Toplita - Chichis Road Rehabilitation, Romania

The National Romanian Company of Motorways and National Roads appointed Roughton to undertake the following services on the rehabilitation of 215km of 2-laned National Road:

- Feasibility and environmental studies
- Geotechnical and topographical surveys
- Preparation of Pre-qualification and tender documents
- Assisting in tender evaluation
- Construction supervision
- Contract Management and Site supervision Training for Client staff

Supervision of Corridor 5c Motorway, Sub-section Zvirovici - Bijaca, Bosnia & Herzegovina

Roughton was commissioned by Autoceste FBiH to undertake full construction supervision in the role of Engineer for Works Contracts for construction of 9.06km of full motorway profile on the southern border of Bosnia and Herzegovina with Croatia, including:

- Assistance to the Employer with pre-construction activities and Contract administration
- Works supervision and progress monitoring
- Technical assistance to the Employer during works execution
- Approval of contractors’ materials, construction techniques and programmes
- Reporting
Rreshen - Kalimash Motorway, Albania

The General Roads Directorate appointed Roughton to undertake the following project management services on the 171 km long route between Durres and Morine, connecting Albania's main port of Durres with Kosovo and the rest of South Balkans:

- Support in monitoring the contract with the Contractor
- Management support of the design consultants, independent engineer and the interfaces among the contract parties
- Support in managing the Employers consents
- Informing the Ministry of Public Works, Transport and Telecomms on progress
- Preparing draft Council of Minister decisions related to project execution

Preparation of Design of Reconstruction of Priority Sections of REBIS Core Network Roads, Bosnia & Herzegovina

Roughton was appointed by a delegation of the EC to undertake various studies, preliminary design and detailed design required for upgrading alignment of the 120km existing trunk road between Tuzla and Sarajevo to increase average travel speed from 50 to 80 km/h. Services provided include:

- Route location, technical and economic feasibility studies
- Traffic, geotechnical, hydrological, and topographic studies
- Environmental and social impact studies
- Preliminary and detailed design
- Production of contract documents for economically viable sections
Supervision of Road Rehabilitation Works and Environmental Monitoring, Serbia

Public Enterprise 'Roads of Serbia' commissioned Roughton to provide high level construction supervision and contract management for 12 works contracts let under the World Bank Small Works Conditions of Contract, ensuring that:

- Works, materials, equipment and workmanship comply with required standards
- Works are planned and executed in due time
- Recommendations of EMP and/or environmental Protection Designs and Contractors environmental protection plans are implemented

Implementation Assistance to Road Rehabilitation Project III, Moldova

The State Road Directorate appointed Roughton to assist State Road Administration with:

- Procurement of works and services contracts
- Further development of existing procurement rules and preparation of new procurement policy and procedures
- All aspects of project implementation for civil works and services contracts within the framework of the Project
- Implementation of the Anti-corruption Action Plan
- Assessing the training needs for SRA staff
- Institutional reform of organisational, administrative and budgetary aspects of SRA
Supervision of 5 Court Buildings, Romania

Roughton was commissioned by the Ministry of Justice, Department for Implementing the Externally Funded Projects to provide high level construction supervision and contract management for 5 works contracts let under the World Bank Small Works Conditions of Contract, ensuring that:

- Works, materials, equipment and workmanship comply with required standards
- Works are planned and executed in due time

Supervision of Design-Build Contract for Sasadilo - Sioni Road, Georgia

Roughton was appointed by the Roads Dept of the Ministry of Regional Development and Infrastructure to provide design review and site supervision services, including:

- Administration of the Design-Build contract by ensuring its implementation related to quantities and quality aspects of works
- Review and verify the Contractor's working drawings
- Supervision of the works, ensuring compliance with technical specifications, contract drawings and schedules
- Processing payment applications and variation orders and assessing the Contractor's Claims
- Review and approve Contractor's construction methods and acceptance/rejection of completed works
- Reporting to the Client
Feasibility Studies and Detailed Design for Road Rehabilitation, Moldova
The State Road Administration commissioned Roughton to undertake the preparation of preliminary designs and detailed economic feasibility studies for the rehabilitation of 3 main road sections (Chisinau - Sarateni, Sarateni- Balti, Chisinau-Hincesti) totalling 225km, including:

- Desk studies and pavement studies and analysis
- Environmental and social impact assessments
- Traffic and topographic surveys
- Geotechnical and hydrological studies and structural assessments
- Detailed designs for road rehabilitation, retaining walls and bridges

Lifeline Roads Improvements Project 2011, Armenia
Roughton was appointed by the Ministry of Transport and Communications as part of a project to provide access of villages to the network of national roads through mountainous and hilly terrain. We provided the following services:

- Preparation of traffic, geotechnical, hydrological and hydraulic studies
- Feasibility studies and economic analysis using HDM-IV for various pavement rehabilitation options
- EIA studies
- Detailed designs for rehabilitation works
- Tender documents for ICB selection method
Preparation of PPP Feasibility Study and Business Plan, Georgia

Roughton was appointed by the Roads Department of Georgia to determine the need for roadside facilities and to recommend economically feasible PPP option for the facilities, in three parts:

- Analytical study to determine the need for roadside facilities, prepare development guidelines and standards for service/rest areas
- Detailed analysis for transit highways systems to identify and evaluate potential sites, including estimated development and operating costs over a 20 year period
- Strategic business plan for implementation of integrated service and rest area plan including assessment of appropriate forms of PPP as well as administrative, regulatory and organisational arrangements for the administering the recommended PPP modality

Assistance in Implementation of Road Projects, Bosnia and Herzegovina

The Public Enterprise Roads Directorate commissioned Roughton to provide Technical Assistance through the Project Implementation Management Team, including:

- Procurement of works in compliance with the Bank's procurement procedures
- Assisting with contract implementation and administration
- Supervision of the rehabilitation works programme for 99 identified sections on about 1.040km of road network over a 3 year period
Background to nROMAPS

nROMAPS is a Road Asset Management System that improves the efficiency of road maintenance planning within institutional frameworks, and consists of a series of interconnected modules that can be implemented at various levels of complexity.

The system reduces the need for extensive institutional resource whilst making optimal use of modern technology for the operation and maintenance of road networks. The system is adaptable to national maintenance policies and regulations, and standardises maintenance practice countrywide.

nROMAPS provides a tool for budgeting, planning and management of emergency, routine, periodic and preventative maintenance. Also provided is a complete Pavement Management System and the ability to export data to HDM 4, in order to implement economic evaluations.

nROMAPS manages detailed inventory and condition data and can also operate using data at Information Quality Level 4 (IQL 4). IQL 4 data is based on visual assessment and is particularly suitable where rapid data collection is required, enabling district staff to carry out the data collection with basic training and minimal resources.

nROMAPS can be used either as the principal national maintenance management system, or as a regional or district maintenance management system.
Air quality
Asset management
BIM
Bridge engineering
Building services
Building surveying
CDM coordinator
Civil engineering
Construction supervision
Contract administration
Due diligence
Drainage design
Economic feasibility
Energy efficiency
Environmental impact
Expert witness
Facilities management
Feasibility studies
Flood risk assessments
Geotechnical investigations
Highway engineering
Hydrological studies
Infrastructure design
Intermodal appraisal
Landscape architecture
Masterplanning
Pavement engineering
Planning
PPP & PFI
Programme management
Project management
Public health engineering
Quantity surveying
Rail engineering
Risk management
Secondment of professional staff
Structural engineering
Transportation planning
Wastewater
Water
worldwide project locations

Albania
Angola
Anguilla
Antigua and Barbuda
Armenia
Asia
Azerbaijan
Bangladesh
Belize
Bhutan
Bolivia
Bosnia & Herzegovina
Botswana
British Virgin Islands
Cambodia
Central Asia
Congo, Rwanda, Uganda
Cook Islands
Costa Rica
Cyprus
Dominican Republic
EIRE
Ethiopia
Falkland Islands
Fiji
Gambia
Georgia
Ghana
Grenada
Guyana
Honduras
India
Indonesia
Ivory Coast
Jamaica
Kazakhstan
Kenya
Kiribati
Kosovo
Kyrgyz Republic
Lao PDR
Lesotho
Liberia
Macedonia
Madagascar
Malawi
Mauritius
Moldova
Montenegro
Montserrat
Mozambique
Myanmar
Nepal
Nicaragua
Nigeria
Oman
Pakistan
Papua New Guinea
Peru
Philippines
Romania
Russia
Rwanda
Samoa
Serbia
Seychelles
Sierra Leone
Solomon Islands
Somalia
Sri Lanka
St Kitts and Nevis
St Lucia
St Vincent and the Grenadines
Sudan
Suriname
Swaziland
Tajikistan
Tanzania
Tonga
Trinidad and Tobago
Tunisia
Turkey
UAE
Uganda
United Kingdom
Vanuatu
Vietnam
Zambia

Energy efficiency
Environmental impact
Expert witness
Facilities management
Feasibility studies
Flood risk assessments
Geotechnical investigations
Highway engineering
Hydrological studies
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Intermodal appraisal
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