

Services list

Archaeology

- Risk appraisals
- Heritage statements
- Desk-based archaeology assessments
- Historic building surveys
- Geophysical surveys
- Environmental impact assessments
- Site investigations
- Mitigation strategies
- Post-excavation analyses
- Publications and presentations

Built environment

- Optimisation of building fabric performance on new and existing buildings (heat, air, acoustic and moisture flows)
- Building regulation compliance
 - Conservation of heat and power
 - Ventilation
 - Control of condensation
- Energy/CO₂ modelling for residential (SAP) and commercial (SBEM) buildings
- Energy Performance Certificates (EPC)
- Display Energy Certificates (DEC)
- Testing
 - · Air leakage
 - Infrared thermography
 - Acoustic (environmental, airborne and impact sound)
 - Temperature and humidity monitoring
 - In situ *U* value measurements
- Investigation of building fabric failures
- Expert witness services
- Sunlight, daylight and overshadowing assessments
- Lighting impact assessments
- Home Quality Mark (HQM)
- Leadership in Energy and Environmental Design (LEED)
- CEEQUAL

- Overheating assessments (CIBSE TM52 compliant)
- Energy and sustainability strategy

Building technology

- Airtightness and sound insulation testing
- Assessments of fire and blast damage
- Building acoustics and vibration control
- Deleterious materials surveys and assessments
- Slip resistance of floors and external paving
- Stone and slate technology
- Thermal insulation surveys and advice
- Construction materials evaluation and quality control and quality assurance testing
- Steelwork fabrication, weld and paint inspections

Business solutions

- Bespoke software development and support
- Commercial off-the-shelf solutions: customer relationship management (CRM), online time sheets
- Data entry and data capture solutions
- Offshore IT development services
- Business process outsourcing (BPO)
- IT systems implementation and support
- Project management
- Training and consultancy services
- Project risk modelling
- Information and communications technology (ICT) management
- Railway risk management

Carbon and sustainability

- Sustainability assessments and strategies
- Sustainability statements for planning
- Sustainability expert witness services
- Code for Sustainable Homes assessments
- BREEAM, including accredited professionals, (AP), assessments

- Low- and zero-carbon energy feasibility
- CIBSE low carbon consultancy
- Energy and carbon audits
- Mandatory carbon reporting
- Carbon footprinting for organisations, products and events
- Carbon management
- Climate change mitigation
- Climate change adaptation
- Training
- Workshop facilitation
- Energy Savings Opportunity Scheme (ESOS)
- CRC Energy Efficiency Scheme

Civil and structural engineering

- Pre-purchase infrastructure and engineering assessments for land acquisition
- Drainage design and sustainable drainage systems
- Flood risk assessments and alleviation
- Highways design
- Structural design and foundation engineering
- Structural investigation consultancy
- Demolition management
- Digital ground modelling and earthworks specifications
- Negotiations for the supply of services to development sites

Communication and technical editing

- Communication consultancy
- Branding and marketing
- Technical journalism
- Marketing communications
- Creative design
- Multimedia
- Video production
- Web design and content
- Print and digital publishing





- Exhibition design
- Advertising
- Media relations
- Stakeholder communications
- Sustainability reporting
- Business communications
- Speech writing
- Editing
- Proofreading

Contaminated land and brownfield redevelopment

- Strategic advice encompassing all elements of brownfield regeneration
- Site investigations and assessments, including quantitative risk assessments
- Remediation options appraisals and design
- Remediation cost–benefit analyses
- Sustainable brownfield regeneration
- Turnkey remediation contracting
- Production of land condition records (LCR)
- Site investigation contracting
- Drilling services
- Soil, rock and materials laboratory testing
- Contaminated soil management
- Monitoring of polluted ground and groundwater

Corporate environmental management

- Environmental management systems development and implementation (ISO 14001)
- Aspect and impact assessments
- Legal and compliance assistance
- Due diligence
- Environmental auditing and reporting
- Supply chain assessments
- Waste minimisation and management

Development solutions

Land appraisal

- Utility searches
- Foundation options

- Remediation options
- Drainage strategies
- Site logistics
- Demolition advice
- Constraints plans
- Analysis of strengths, weaknesses, opportunities and threats, and hazard identification
- Land use
- Technical reports

Conceptual design

- Space and efficiency overviews
- Advice on site-specific components
- Analysis of construction methods
- Value engineering
- Internal layout considerations
- Sustainability awareness and design
- Code for Sustainable Homes and BREEAM pre-assessment, and pre-planning meetings

Planning support

- Design team meetings
- Community engagement
- Public exhibitions
- Appointment of consultants
- Coordination of project consultants
- Project lead in programmes
- Comprehensive environmental impact assessment support
- Civil and structural engineering, including flood risk assessments and sustainable drainage system reviews

Design/tender process

- Construction design and management (CDM) consultancy
- Design programmes
- Coordination of project consultants
- Timely issue of design packages
- Assessment of contractor competence
- Evaluation of tender documentation
- Service applications and/or disconnections
- Detailed design of remediation and civil and structural engineering

Site start

- Building Regulations, sections 38 and 104 approval
- Pre-contract meetings
- Site supervision and watching briefs
- Discharge of planning consents
- Construction environmental management plans
- Public relations and liaison with statutory bodies and stakeholders

Ecology

- Ecological surveys
- Protected species surveys
- Invertebrate surveys
- Botanical surveys
- Invasive plant surveys
- Protected species licensing
- Ecological mitigation and habitat enhancement
- Ecological input to Code for Sustainable Homes and BREEAM assessments
- Conservation management plans
- Ecological impact assessments
- Ecological site supervision
- Specialist ecological survey techniques, e.g., tree climbing inspections, entry into confined spaces and radio tracking
- Ecological geographic information systems
- Arboricultural services

Environmental health and safety training

- Full range of environmental, health and safety training and facilitation programmes
- Introductory level to advanced training courses
- Courses accredited and internationally recognised by IEMA, IRCA, IOSH and NEBOSH
- Standard solutions for public and in-house delivery
- Bespoke solutions for in-house delivery
- Experienced and practical tutors





Environmental and social impact and design

Environmental impact and design

- Archaeology and cultural heritage assessments
- Ecological mitigation and habitat enhancement
- Feasibility studies
- Scoping studies
- Strategic environmental assessments
- Environmental impact assessments
- Landscape design and masterplanning
- Environmental consents and planning applications
- Environmental site supervision
- Geographic information systems
- Marine (biological, geological, geophysical and geotechnical) services
- Pre- and post-application consultations
- Aerial survey and mapping
- Air quality and climate assessment modelling
- Noise and vibration surveys and assessments
- Environmental site supervision and pollution monitoring
- Landscape and visual impact assessments
- Landscape design and management

Social baseline studies

- Human rights impact
- Natural resource use
- Indigenous people
- Intangible cultural heritage
- Ecosystem services impacts

Social management plans

- Social mitigation
- Social monitoring
- Resettlement action
- Influx management
- Community development
- Livelihood restoration
- Local recruitment
- Indigenous people

Corporate responsibility plans and programmes (social aspects)
Stakeholder engagement plans
Social due diligence assessments

Environmental monitoring and data

- Monitoring in accordance with Environmental Permitting Regulations
- Secure, traceable and expedient delivery of audited data
- Gas, water and leachate sampling
- PM₁₀ metals, polycyclic aromatic hydrocarbons and dust measurements
- Installation and operation of fixed dust gauges
- Design and implementation of flame- and photoionisation and flux surveys
- Assessments of fugitive emissions: low concentration hydrogen sulphide
- Trace volatile organic compound sampling and analysis (thermal desorption)
- Gas source investigation stable carbon isotope (¹²C:¹³C) measurement
- Data qualification and presentation: GIS plots, compliance notification reports and web interfaces

Geomatics and aerial surveys

- High-resolution imaging, Lidar, 3D scanning, multispectral imaging and high-definition video
- Unmanned aerial vehicle (UAV), helicopter and fixed-wing services
- Aerial surveys, inspection and mapping
 - Power lines
 - Pipelines
 - Rail- and tramways
 - · Roads and highways
 - Telecommunications
 - Coasts and waterways
 - Off- and onshore wind farms
 - Environmental monitoring
- Marketing and public relations images and videos

- 3D visualisation and augmented reality
- Geographic information systems
- Aerial surveillance: pipeline patrols
- Annual aerial integrity surveys
- UAV training
- UAV surveys and inspections
- Bespoke UAV system design-and-build services
- ViSiVi
 - Key constraint analyses
 - Environmental impact assessment production
 - Pre-construction baseline surveys
 - Construction bidder packages
 - Counter-evidence claims for compensation
 - Population density surveys
 - TD1 surveys
 - Emergency response
 - Environmental impact studies

Ground engineering

- Earthworks and slope engineering
- Geophysical surveys including groundpenetrating radar
- Geotechnical consultancy and design
- 2D and 3D ground deformation modelling
- Soil-structure instrumentation and monitoring
- Seismic risk assessment and design
- Value engineering/temporary works design

Health and safety

- Policy (management system) development and implementation
- Occupational health services
- Occupational hygiene
- Hazard identification and risk management
- Construction design and management (CDM) consultancy
- Control of contractor safety (supply chain management)
- Compliance audits, surveys and inspections
- Asbestos risk assessment and management (site surveys, supervision and clearance testing)





- Competent body support and advisory service
- Legionella risk assessment and management
- Emergency and business recovery planning
- Multidisciplinary construction and railway construction environmental, health and safety support
- Accident and incident investigation
- Employee competency management

Heritage materials and structures

On-site

- Designated non-destructive testing and/or materials sampling of historic buildings and sensitive sites
- UKAS-accredited site sampling teams
- Professional investigation and testing services
- Rope-access techniques for difficult access situations

Material fabric assessments

- Visual surveys by specialist inspectors
- Non-destructive testing
- Boroscope surveys
- Dye testing for identification of surface cracking
- Petrographic examinations of constituent materials
- Chemical analyses for deleterious materials
- Monitoring of deterioration mechanisms
- Conservation materials evaluation and matching
- Investigations of historic building materials, including stone, slate, brick, mortar, concrete, terracotta, plaster, render, paint and timber

Laboratory techniques

- Microscopy
- Photospectrometry
- Wet chemical analysis

- Scanning electron microscopy and microanalysis
- X-ray diffraction
- X-ray fluorescence analysis
- Infrared analysis
- Gas chromatography
- Thermal analysis
- Laser ion mass surface analysis

Laboratory services

- UKAS-accredited soil testing to ISO 17025
- UKAS-accredited organic and inorganic laboratory analyses
- UKAS-accredited asbestos sample analyses
- MCERTS accreditation
- Supply of sampling media and equipment
- Technical support
- Expert witness
- Shrinkability and classification of soil
- Compaction and shear strength testing
- Effective stress, large and small shear box and ring shear test facilities
- Rock testing

Nuclear services

- Permitting, licensing (safety case) and technical support for existing and new construction sites
- Radiological and health physics (technical and field support)
- Waste (radiological and non-radiological) management
- Contaminated land (radiological and non-radiological) assessment
- Remediation design and project management
- Decommissioning project management
- Environmental, health and safety: monitoring, construction design and management (CDM), training, management systems
- Ecology support
- Due diligence
- Stakeholder support

- Intrusive drilling
- Laboratory analysis of samples radiologically cleared from site

Permitting

- Permitting applications for installations, mobile plant, surface and ground discharges and waste operations
- Air quality and emission impact assessments
- Definition of best available techniques (BAT)
- Compliance audits
- Greenhouse gas and EUETS services
- COMAH safety report

Rural and agriculture

Arboriculture

- Advice in relation to tree preservation orders and trees within local authority conservation areas
- Advice on tree pests and diseases
- BS 5837 surveys
- Development of bespoke tree management and data collection software
- Forestry management
- Legal advice
- New woodland designs and tree planting specifications
- Thinning control, timber measurement and marketing
- Tree and woodland valuations
- Tree risk surveys and policy advice
- Tree work to BS 3998
- Utility vegetation management
- Vegetation mapping and modelling
- Woodland grant scheme applications

Crop nutrition

- Controlled-release fertilisers, liquid feeding and foliar feeding; soil and substrate media
- Diagnosis of nutrient-related crop disorders
- Grower advice on legislative requirements
- Improving macro- and micronutrient use efficiency





- Improving the use of organic material nutrients
- Innovation in fertiliser use efficiency
- Integrated use of organic materials and manufactured fertilisers

Crop physiology

- Canopy management
- Crop yield potential
- Evaluations of the physiological effects of agrochemicals
- Exploiting biofuel feedstocks for livestock feed
- Fertiliser recommendations
- Identification of crop traits for maximising yield and quality
- Identification of phytochemicals for use in medicines, personal care, nutrition and plant protection
- Linking industry with academia through collaborative projects
- Peer-reviewed scientific papers
- Precision farming
- Rooting measurements in field and controlled environments
- Triticale production
- Understanding lodging and control methods

Crop protection

- Disease management
 - Agronomy support
 - Controlled-environment studies
 - Glasshouse and small compartment studies
 - Laboratory studies and experiments
 - Model development and disease forecasting
 - National surveys
 - ORETO field trials (efficacy)
 - Disease diagnosis
 - Resistance management
 - Soil-borne diseases
 - Strategic project management

- Pest management and entomology
 - Pest identification, monitoring and forecasting
 - Project development, management and delivery
 - Research and consultancy on improved methods for pest management
- Weed management
 - Conservation of rare arable weeds
 - Contract trials: field, outdoor pot and glasshouse
 - Data interpretation and statistical analyses
 - Desk studies, including literature or economic reviews
 - Detailed understanding of weed biology and ecology
 - · Herbicide resistance testing
 - In-house facilities for field, glasshouse and polytunnel trials
 - Integrated and cultural control and management
 - Non-chemical and organic weed control
 - Resistance management
 - Weed identification

EU Protected Food Names (PFN) scheme

- Identification and evaluation of products
- Collection and collation of data
- Management relationships between producer groups and Defra
- Management of applications through national consultations
- Submission of EU applications

Expert witness

- Agriculture
- Air quality
- Archaeology
- Ecology
- Environment
- Equestrian
- Food
- Health and safety
- Horticulture

- Soil and land drainage
- Town and country planning
- Waste management

Grassland and forage

- Agri-environment schemes and biodiversity
- Conservation grazing and grassland habitat restoration
- Fertiliser advice
- Grass and/or forage analyses and ration advice
- Grass, maize and forage diseases and disease control
- Grassland monitoring and evaluation
- Herbicide advice
- Organic grass and forage management
- Soil and nutrient management
- Upland and lowland production
- Weed and pest management

Greenhouse gases

- Calculating greenhouse gas emissions from crops
- Gas chromatography analysis techniques
- Livestock greenhouse gas reduction and mitigation
- Maximising nitrogen use efficiency in crop production systems
- Maximising production efficiency to minimise methane and nitrous oxide emissions from livestock systems
- Measuring nitrous oxide, methane and carbon dioxide emissions from field experiments
- Modelling and data interpretation
- Use of nitrification inhibitors to reduce nitrous oxide emissions from applications of manufactured nitrogen fertiliser and organic materials

Horticulture

- Auditing
- Crop nutrient and physiological disorder diagnosis
- Crop nutrition





- Crop productivity
- Crop protection, including chemical, non-chemical and biological control
- Environmental manipulation of product quality
- Growing media expertise
- Growing system and post-harvest technology
- Irrigation technology
- Legal work
- Pest and disease diagnosis
- Product development
- Project management
- Protected cropping and energy
- Soil-borne diseases
- Variety selection
- Water harvesting
- Technology transfer and training for farmers, growers, suppliers and consultants

Land management

- Agricultural land classification
- Biodiversity offsetting
- Ecological mitigation and compensation
- Ecology
- EIAs
- Habitat creation and management
- Planning and licensing support
- Sustainable land management

Landscape

- Green belt assessments and reviews
- Green infrastructure studies and landscape research
- Design
- Management and strategies
- Planning, assessments and appraisals
- SuDS design

Livestock health and management

- Animal health and welfare evaluation at farm level
- Animal nutrition
- Benchmarking to improve stock health and welfare

- Business review and business management
- Design and monitoring of on-farm animal health studies
- Feasibility studies
- Grassland and forage production
- Knowledge transfer to key stakeholders and farmers
- Livestock health research
- Livestock husbandry
- Market research
- Nutrient planning and correct use of farmyard manure
- Overseas animal health and welfare compliance assessments
- Policy evaluation, for example, impact of changes in legislation and advice to governments
- Research and development: on-farm trials
- Resource management
- Waste reduction

Molecular diagnostics

- Biomarker discovery
- eDNA assay development for detection of protected, at risk or invasive species
- Immunoassay development (ELISA , Western blot)
- Molecular biology techniques, including PCR and rtPCR
- Monoclonal antibody isolation
- Next-generation phage display
- Phage display methods for peptide/antibody isolation
- Prion diseases or transmissible spongiform encephalopathies (TSE) of livestock: dissemination, environmental fate, strain typing, pre-mortem diagnostics and in-vitro replication

On-farm advice

- Agri-environment scheme applications and management advice
- Arable and grassland agronomy
- Benchmarking technical and financial monitoring

- Expert opinion and legal expert witness
- Farm business consultancy, business plans and reviews, cash-flow forecasts
- Farm diversification, feasibility studies, investment appraisals, grant applications
- Farm infrastructure design, slurry, manure systems and pesticide facilities design
- Farm-scale anaerobic digestion advice
- Group training, mentoring and facilitation of knowledge transfer programmes
- Livestock performance and management
- Nutrient management
- Nutrient planning and effective use of manure
- Professional services, planning appraisals, EIAs
- Regulation and compliance: nitrate vulnerable zones, cross compliance, greening and Silage, Slurry and Agricultural Fuel Oil (SSAFO)
- Soil and water management, drainage, flood risk and irrigation
- Supply chain, resource efficiency

Soil

- Agricultural and ecological benefit statements for land reclamation and restoration projects
- Agricultural land classification
- Applied research
- Contaminated land assessments (Phase 1)
- Land drainage
- Land restoration and remediation
- Land valuation and rent reviews
- Site risk assessments for spreading organic materials
- Soil manufacture
- Soil resource survey and strategic land assessments
- Soil storage and management
- Strategic advice





Wayleaves

- Compensation claim assessment and negotiation
- Consultations with relevant statutory bodies
- Facilitation with landowners, their agents and contractors
- Infrastructure planning
- In-house ecological and archaeological surveys
- Land referencing
- Producing and agreeing with landowners heads of agreement for wayleave agreements and deeds of easement
- Route feasibility and selection
- Securing access arrangements with landowners for surveys and contractors
- Specialist valuations
- Submission of relevant forms and applications to the local authorities and Department of Energy & Climate Change

Transport planning

- Transport assessments and statements
- Travel plans
- Feasibility appraisals
- Car parking assessment
- Swept path analyses

Waste management

- Resource efficiency audits
- Duty of care assessment/compliance
- Environmental Permitting Regulations permitting and exemptions
- Work management strategies

Water

Drinking water and waste water infrastructure management

- Modelling and performance assessments
- Operational management and maintenance planning
- Infrastructure development

Flooding

- Flood risk assessments
- Strategic flood risk assessments
- Flood planning and emergency response
- River modelling and topographical surveys

Water resources

- Hydrological assessments and catchment analyses
- Low-flow studies
- Hydrogeological assessments
- Supply demand planning
- Capacity and resource management

Water quality

- Water quality assessments
- Potable and waste-water treatment process support
- Monitoring and analysis

Asset management

- Investment planning and delivery
- Strategic risk assessments
- Strategy development
- Data acquisition and analysis
- Asset condition surveys

Water Framework Directive

- Economic modelling and evaluation
- Environmental impact assessments

Long-term monitoring

- Surface and groundwater monitoring
- Telemetry
- Sampling network design and installation
- Data retrieval, processing and analysis

