



EXPERIENCE STATEMENT

ENVIRONMENTAL MANAGEMENT TRAINING

INTRODUCTION

Sound environmental training will help organisations to improve environmental performance through better awareness among all employees and improved skills for those in jobs that can result in significant environmental impact. Training is an essential element of environmental management, and in particular in the implementation of environmental management systems. Training needs differ according to job function and the nature of the business. In principle, environmental management needs to be integrated within the organisation. All staff from top management downwards need to have some understanding and awareness of the issues and how they can be addressed.

EMAG Ltd offers a wide range of training products to provide staff at all levels within businesses with the skills and competences that they need to address the environmental issues they are increasingly faced with.

RELEVANT PROJECTS

- Development and delivery of awareness and implementation training associated with implementation of environmental management systems meeting the requirements of ISO 14001 for a major international motor manufacturer at its manufacturing sites worldwide
- Environmental auditing skills training for several companies in the chemicals, automotive, engineering and telecommunications sectors.
- Development and delivery of training on the Environment Agency's Operator and Pollution Risk Appraisal (OPRA) system for assessing the relative risks from processes authorised under Integrated Pollution Control (IPC).
- Development and delivery of a course for a motor manufacturer on environmental issues for design engineers.

- Internal Auditing
- Awareness for managers
- Awareness for operators

- EMS implementation
- Environmental legislation
- Design for Environment

KEY ISSUES IN IMPLEMENTATION

Training needs

Our first step is to identify training needs and training objectives. These define the course contents and structure.

Tailored training

We tailor the training to the specific objectives and circumstances of the client and to training needs at all levels in the organisation. We work hard to ensure that the course material and exercises are relevant to course participants.

Client input

We work with our clients to encourage input and feedback both during course development and during course delivery

Materials and venue

We provide full course documentation in support of the training. We can deliver training at client's premises or provide a convenient venue with full administrative support

SUMMARY RESUMES

Christine Hemming

Christine has developed and delivered courses on EMS implementation, as well as on the role of life cycle assessment and risk assessment within environmental management, for a wide range of clients in the automotive, chemicals, construction and telecommunications sectors.

Clare Moody

Clare has developed and delivered training on environmental auditing, legislation and management awareness for clients in the automotive, engineering, chemicals, oil, telecommunications and food sectors.

Ted Rosser

Ted has developed and regularly delivers EMS auditor and EMS implementation training. Clients include companies in the petrochemical and automotive sectors.



CASE STUDY

OPERATOR AND POLLUTION RISK APPRAISAL (OPRA) TRAINING

CLIENT NEED

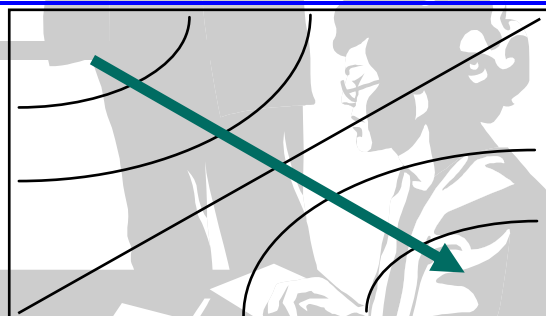
The Environment Agency has responsibilities for enforcing Integrated Pollution Control (IPC). This involves issuing authorisations under IPC and carrying out regular inspection visits to ensure that authorisation conditions are being complied with. Like many organisations, there are pressures on the resources it has available. It developed OPRA to help it rank the IPC processes it regulates in order to enable it to focus greater resources on the higher risk processes.

OPRA was designed to be used in full openness with the operators of IPC processes. Having introduced OPRA internally, it was looking for a consultant to provide training on OPRA to operators and other interested organisations externally. Given the pressures on its resources, it wished to do this with minimum demand on these resources.

HIGHLIGHTS

- A total of nine courses were held around England and Wales, involving about 400 participants.
- The Environment Agency's requirement of one course in each of its eight regions within a nine month period was met.
- Demand was such in the north of the country that an additional course was organised in Leeds.
- A number of companies specified a need for in-house training. Some planned to apply the OPRA risk-based approach to their environmental management.

- **General Principles of OPRA**
- **How OPRA is being used**
- **Pollution Hazard Appraisal**
- **Operator Performance Appraisal**
- **Identifying weaknesses & making improvements**
- **Sources of information**



EMAG APPROACH

EMAG proposed to develop a one-day training course and deliver it in all of the Agency's regions at no cost to the Agency and at a very competitive price per course participant (£120). The Agency's input was limited to the use of the Agency's logo on course material, the provision of address details for all 2,000 or so IPC processes, and some focused input during the development of the course material to ensure that the correct training messages were being delivered.

EMAG used a small specialist events organisation consultancy to deal with all course administration, freeing EMAG consultants to concentrate on course development and delivery.

CLIENT FEEDBACK

The Environment Agency has been sufficiently satisfied that it has approached EMAG about further work on OPRA.

Our clients also include course participants. Their feedback from the courses shows that overall between 60% and 95% considered the course to be good or excellent. Some of the comments made include:

- “Good value for money”
- “Training was concise, relevant and timely”
- “Well paced and informative”
- “Very useful”
- “Well presented, informative”
- “Good subject coverage; clear handouts/ slides”
- “Comprehensive, relevant, value for money”
- “Well paced and good examples. Excellent presentation”



CASE STUDY

TRAINING COURSE ON ENVIRONMENTAL ISSUES FOR DESIGN ENGINEERS

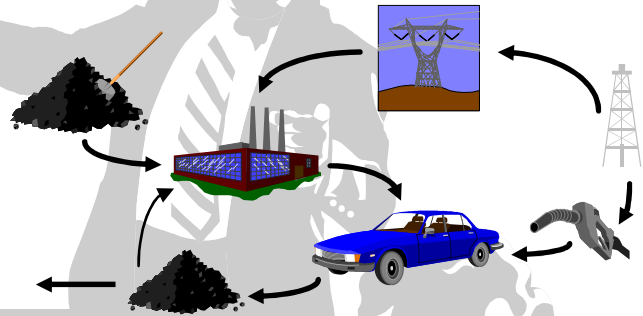
CLIENT NEED

A well-known UK based car company was implementing environmental management systems in order to achieve certification to ISO 14001. It had decided to include its product development and product engineering functions within the scope of its environmental management system. It therefore recognised the need to provide training to its design engineers on the environmental implications of their activities and how they could begin to address environmental issues within the design process.

HIGHLIGHTS

- Two half-day and five full day courses were delivered, over a six month period, involving about 200 participants.
- Feedback from participants was very positive.
- The course prompted a noticeable increase in interest in environmental management and requests for information from the environmental department.
- The company subsequently successfully achieved ISO 14001 certification.

- Environmental issues and impacts
- Influence of design on environmental issues
- Environmental legislation
- Links to ISO 14001
- Addressing environmental issues within the design process



EMAG APPROACH

EMAG proposed to develop a flexible training package encompassing a half day course for managers and an extended full day course for engineers. Both courses addressed key issues, such as cradle-to-grave concepts, life cycle thinking, legislative trends and environmental management systems elements. The extended course included, in addition, exercises and workshops to encourage participants to think about the environmental implications of design choices and how to integrate consideration of these aspects into the design process.

The courses were developed with regular feedback from the client to ensure that the training objectives were being met. Further minor improvements were also made to the course in the light of feedback from participants following course delivery.

The training was delivered at the client's premises, and use was made of the client's own systems for issuing joining instructions and for course evaluation.

CLIENT FEEDBACK

The client was very satisfied with the course and its delivery and has used EMAG to provide further environmental training.

Common comments from course participants were that the course was very enjoyable, thought-provoking and informative.

Use has subsequently been made of some of the training material in an internal presentation on environmental issues in design.



EXPERIENCE STATEMENT

EMS PRE-ASSESSMENT AND INITIAL ENVIRONMENTAL REVIEW

INTRODUCTION

What resources and costs will be involved in EMS implementation? Are we ready for the certification audit? These are typical questions/issues for those committed to achieving EMS. Most businesses embarking on EMS implementation are likely to have some systems for environmental management in place. They also often have quality management systems and elements of health and safety management. What may be less clear is how the business can build on these existing systems. If the organisation has been able to implement an EMS without external help, it may find it useful to have an external check, prior to the certification assessment, that all the required elements are in place.

EMAG offers a range of types of review of existing data and management systems, including a simple pre-assessment "health check", gap analysis, and initial environmental reviews as required by EMAS. The results are designed to help with planning EMS implementation and certification.

RELEVANT PROJECTS

- In the context of a project for the European Commission, initial environmental reviews for several small companies in the engineering and food processing sectors.
- For a major international motor manufacturer, gap analyses comparing existing management systems and information available with the requirements of ISO 14001 at more than 50 of its plants worldwide. We produced an implementation plan for each plant, and the exercise improved awareness and understanding.
- For one of the world's best known oil and gas companies, a review of existing EMS to identify gaps compared with ISO 14001 and to provide the basis for EMS design and development.
- A study of a document processing centre, comparing its existing systems with the requirements of ISO 14001 and developing an EMS implementation plan.
- For the headquarters of a Government Department, a scoping study comparing existing management systems with the requirements of relevant EMS standards and developing a prioritised action plan.

- **Site and Plant situation**
- **Environmental regulatory status**
- **Organisation & environmental roles/responsibilities**

- **Information on environmental performance**
- **Existing environmental controls & procedures**
- **Recent & planned changes**
- **Recent environmental studies/audits**

KEY ISSUES IN IMPLEMENTATION

Information gathering

We use a carefully designed and structured process, supported by checklists and questionnaires as appropriate, to gather information about existing management systems and data through interviews with key staff.

Assessment

We then assess how far the existing management systems and data meet the requirements that the organisation is aiming for within each of the key EMS elements. In initial environmental reviews, we also help our clients to identify and assess the environmental effects of their operations

Recommended Implementation Plan

We present our findings with a short summary report and a recommended implementation plan. This clearly defines the work that still needs to be carried out, with estimates of timings and the resources needed for each step.

SUMMARY RESUMES

Christine Hemming

Christine has carried out many initial environmental reviews of sites in the context of EMAS implementation. She has also carried out many gap analyses and reviews, particularly in the manufacturing and service sectors.

Shirley Pugh

Shirley has carried out initial environmental reviews for several small companies, particularly in the food and engineering sectors.

James Smith

James has wide ranging experience of carrying out initial reviews, legal compliance assessments and of advisory visits to small companies across a variety of sectors. James has also carried out sustainable development reviews for an increasing number of manufacturing companies.

Ted Rosser

Ted has carried out pre-assessments and compliance and supply chain assessments for clients in the chemicals and general manufacturing sectors



EXPERIENCE STATEMENT

EMS IMPLEMENTATION

INTRODUCTION

Companies implementing environmental management may need external assistance in several different areas. There may be a need to provide training to all of those with environmental responsibilities. There may be a need to provide specific assistance in the early steps involving the identification and evaluation of the environmental effects of the organisation's activities. There may be a need for advice and assistance in drafting a policy and objectives, targets and programmes, or in identifying and preparing procedures and work instructions and other relevant documentation. Or, there may be a need for help with carrying out or managing internal environmental audits.

EMAG can provide advice and assistance on all aspects of EMS implementation.

RELEVANT PROJECTS

- For one of the largest global automotive manufacturers, assistance at all stages of EMS planning, development and implementation to achieve ISO 14001 certification. EMAG's work covered over 50 plants in 10 European countries and in Canada and the US
- For a world airline, extensive management reviews, advice on EMS implementation strategy and management training
- For the European Commission, assisting small companies address the requirements of EMAS
- For a large manufacturing company, devising a practical approach to the identification and evaluation of significant environmental aspects

- **Identifying and evaluating environmental aspects**
- **Developing objectives, targets & programmes**
- **Preparing procedures & work instructions**

- **Organisational structure**
- **Training & awareness programmes**
- **Internal auditing programmes**
- **Second party audits**
- **Project management**

KEY ISSUES IN IMPLEMENTATION

Understanding client needs

We work with our clients to provide advice and assistance where it is needed. We do not duplicate resources already available in-house. We will help you develop EMS elements which fit into your existing systems and structures.

Client ownership

We help clients to establish and implement their own EMS, tailored to their specific circumstances and that works for them.

Knowledge/skills transfer

By working alongside our clients we pass on an understanding of the aims and structure of the EMS. After our work is finished, our clients can continue to operate, improve and benefit from the EMS.

Getting results

By focusing the EMS clearly on environmental performance, we ensure that the implemented system delivers improved performance and benefits to both the environment and the business.

SUMMARY RESUMES

Christine Hemming

Christine has provided advice and assistance on all aspects of EMS implementation at sites from the large to the small, particularly in the automotive, engineering and food sectors, and covering operational and administrative activities.

Clare Moody

Clare has provided assistance and training in EMS implementation and auditing to many companies particularly in the automotive, chemicals and telecommunications sectors.

Shirley Pugh

Shirley has managed and co-ordinated internal auditing and training programmes for companies particularly in the automotive sector.

Ted Rosser

Ted has provided ISO 14001 implementation consultancy for numerous companies in the petro-chemical, manufacturing, mining and services sectors.



CASE STUDY

EMS IMPLEMENTATION WITHIN A SMALL ENGINEERING COMPANY

CLIENT NEED

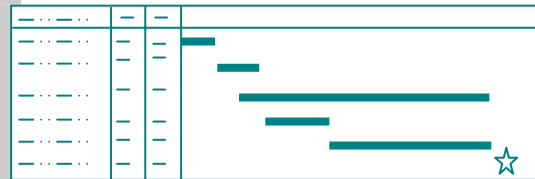
This small, dynamic engineering company based in the east of England designs and manufactures test equipment and components for the automotive industry amongst a diverse range of products. It recognised that the interest of the main automotive companies in environmental management could soon extend to their suppliers. It also recognised the likelihood that it could make savings in its use of energy and raw materials.

The company wished to take advantage of government grants available at the time to help small companies with EMS implementation. With its own resources extremely limited, it needed external help.

MAIN RESULTS

- EMAG helped the company complete the first two stages (initial environmental review and EMS implementation) before the grant scheme came to an end.
- EMAG worked with the company firstly to complete the initial environmental review and draft an environmental policy, and secondly to prepare the environmental management documentation and implement the system.
- The company is well prepared for certification assessments.

- Initial environmental review
- Identification of legal requirements
- Identification of significant environmental aspects
- Development of environmental policy, objectives, targets and programmes
- Drafting of procedures and work instructions
- Internal auditing training



EMAG APPROACH

EMAG helped the company apply for funding through the Small Company Environmental and Energy Management Assistance Scheme (SCEEMAS). This involved a three stage approach to meeting the requirements of EMAS.

EMAG worked with the resources the company could make available. Resource difficulties, including staff changes and sickness, and competing demands due to production changes and quality problems, are magnified in small companies and EMAG had to be very flexible in its approach to work around these.

EMAG based EMS development on the existing improvement programmes, organisational structure, procedures and work instructions already in place in the company.

Implementation and internal auditing training was provided to enable the company to continue to work with and develop the EMS in future.

CLIENT FEEDBACK

The client has been very well satisfied with the assistance provided by EMAG.

It had followed up many of the recommended improvement actions arising from the initial environmental review before the second stage of this work began.

Feedback from those who attended training was that it had been very useful.

The main client contact said he was extremely impressed with the final environmental management documentation.



EXPERIENCE STATEMENT

ENVIRONMENTAL PERFORMANCE EVALUATION

INTRODUCTION

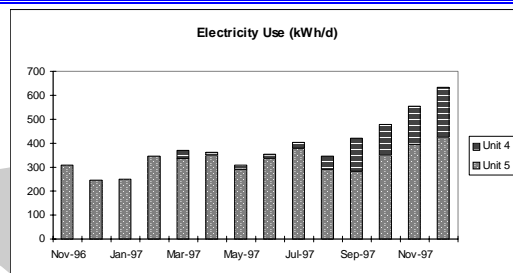
Companies need to measure their environmental performance for an increasing number of reasons. Companies implementing EMS need to measure performance in order to manage it and show that it is improving. Increasingly, company stakeholders, including neighbours, regulators, lenders, insurers, are requiring information about environmental performance and there is growing pressure for companies to report on not only their environmental, but their sustainable development, performance.

EMAG offers advice on the identification of relevant performance indicators and simple systems for gathering and assessing information to measure performance for the whole range of environmental management applications

RELEVANT PROJECTS

- For an international packaging company, development of a simple questionnaire for gathering consistent, relevant information about key performance indicators from operating sites worldwide, with a view to future publication in an environmental report
- For the Environment Agency, developed and delivered training on the Operator Pollution Risk Appraisal (OPRA) system for rating both the inherent pollution risk of processes and the performance of the management systems
- For a major construction company, help with identification of performance measures, assessment of current performance levels, and identification of suitable objectives and targets for the headquarters administration activities

- **Identifying key indicators**
- **Developing data collection and assessment systems**
- **Developing rating systems for measuring management performance**



KEY ISSUES IN IMPLEMENTATION

Identifying performance indicators

We help our clients identify performance indicators which are relevant, both to their activities and to the uses to which the indicators will be put, and for which they have readily accessible information

Gathering information

We help develop questionnaires which make providing the information as simple as possible. We will help draft accompanying explanatory (and awareness-raising) material

Assessment and presentation

We help develop transparent systems to ensure the information is assessed, compared and presented in consistent, meaningful ways

Using the results

We help our clients integrate the results into the process of setting objectives and targets to provide a dynamic for continual improvement

SUMMARY RESUMES

Christine Hemming

Christine has worked with clients in the packaging and computer equipment sectors on the development of performance measurement systems for the purposes of environmental reporting. She has helped many clients identify and measure indicators of environmental performance, in the context of EMS implementation, particularly in the automotive sector.

Clare Moody

Clare has helped companies in the engineering, chemicals, DIY and aggregates sectors implement systems for measuring and monitoring environmental performance at operating sites.



EXPERIENCE STATEMENT

ENVIRONMENTAL AUDITING

INTRODUCTION

Environmental auditing is an essential part of a successful environmental management system. An effective, motivated, and enthusiastic internal audit team can make the difference between a successful and an unsuccessful EMS. External audits by corporate staff or staff from other sites are also a useful tool to check on the development of the EMS and environmental performance, environmental compliance etc, and a conduit for the exchange of good environmental practices and environmental technologies.

RELEVANT PROJECTS

- Internal environmental audit skills training for companies in the Automotive, chemicals, packaging, telecommunications and consumer goods companies.
- Coaching of internal auditors for the automotive, chemicals and telecommunications sectors.
- Team leadership of international external audit teams for chemicals and telecommunications companies – Czech Republic, Denmark, Greece, Turkey, Hungary, Estonia Ireland, USA and in the UK.

- Auditing skills training
- Coaching and team leading
- Design, management and co-ordination of internal auditing programmes

- Internal & external audits
- Second party audits
- Compliance audits
- Dissemination of best practice

KEY ISSUES

EMAG work closely with you to ensure we have identified training needs; covered issues relating to effective audit programme design and audit tool design and covered both the requirements of internal and external auditing.

The training courses are tailored to meet your requirements and may take place over 2,3, or 4 days, including a practical audit on site.

We can also work with you to identify audit team leaders and carry out 'team leader' training and coaching to ensure a 'pool' of good team leaders, provide on-going coaching and refresher training, as required, for all auditors.

EMAG can also provide resource, where team leaders, support auditors are lacking.

SUMMARY RESUMES

Clare Moody

Clare has carried out all of the above for the past 7 years, helping companies with all aspects of their environmental and health and safety auditing.

James Smith

James is a qualified environmental auditor with 11 years experience of carrying out audits in a range of sectors. These audits have encompassed waste treatment, mining, airports, refineries, engineering, bio medical, aerospace and service industries.

Ted Rosser

Ted has carried out ISO 14001 certifications and EMAS assessments at over sixty sites in the oil and gas (including offshore), petrochemical, steel, manufacturing and public sectors including numerous IPC and IPPC sites.

Shirley Pugh

Shirley has managed and co-ordinated internal auditing and training programmes for companies particularly in the automotive sector.



CASE STUDY

INTERNAL ENVIRONMENTAL AUDIT COURSES FOR THE AUTOMOTIVE INDUSTRY

CLIENT NEED

As part of the implementation of an EMS, our client in the automotive industry needed to equip a pool of internal environmental auditors with the skills, techniques and tools to carry out effective environmental audits of its EMS at various UK sites.

HIGHLIGHTS

- Three and four day courses were carried out at over 10 different sites over a year, involving more than 200 participants
- Very positive feedback from the majority of participants on the course
- Effective audit teams, able to carry out internal audits with confidence and with the right attitude!
- Development of environmental information and issues within the company through the audit process.
- The company subsequently successfully achieved ISO 14001 certification.



- **ISO 14001 and EMS requirements**
- **Environmental legislation**
- **Planning an internal audit**
 - **Audit team**
 - **Audit tools**
- **Audit skills:**
 - **Interviewing**
 - **Recording findings**
 - **Communicating results**

EMAG APPROACH

The EMAG approach is based on many years of training environmental auditors internationally, using fundamental audit skills training. The training approach and material originates from best practice environmental auditing in the US over 20 years ago, and has been developed and updated as changes in best practice and standards have evolved.

Our approach is to equip trainees with these skills and techniques using a mixture of presentation, exercises and role-plays, e.g. interviewing skills, understanding management systems, carrying out opening and exit meetings. This is combined with a practical audit on their own site to put these skills into practice as part of the training course.

Evaluation of the participants is part of the feedback from the course, to ensure the most effective audit teams.

CLIENT FEEDBACK

Some of the comments made on the training course include:

- “Very useful course”
- “The practical audit was excellent use of skills learnt during the theory”
- “Very good course – role plays and exercises were thought-provoking”
- “Excellent course – enjoyed the role-plays”
- “I am now confident to go take part in audits”
- “Very good- I could now lead an audit with confidence”
- “The course should be followed by refresher training/further coaching”



CASE STUDY

TEAM LEADERSHIP TRAINING FOR ENVIRONMENTAL AUDITORS

CLIENT NEED

One of the World's largest chemical companies identified the need to ensure quality 'team leaders' for its international environmental health and safety audits. Due to the high turnover of staff within the company, new experienced and well qualified team leaders were required, who understood the needs of an audit team leader, leading a team of up to 6 team members on an international audit.

HIGHLIGHTS

The client was very happy with the course quality and feedback from the participants, and commented on the improved quality of audits internationally and more effective audit teams, due to focusing on personal styles and characteristics of audit teams.

- Overview of EMS
- Environmental legislation & environmental aspects
- Basic audit process
- Audit team
- Key audit tools
- Pre-audit activities
- On-site activities
- Post-audit activities



EMAG APPROACH

EMAG provided a two day interactive 'team leadership skills' course for 8 participants, based on presentation, but with the focus on exercises and role-plays to bring out the key skills required and the strengths of the participants. The course addressed such issues as 'personal leadership style', 'conflict resolution', 'communicating effectively' and 'difficult audit situations'.

The course was given at one of the client's UK premises, with a full training pack in Powerpoint format.

CLIENT FEEDBACK

Excellent feedback from the participants and the European audit co-ordinator.

The course quality was found to be high, the role-plays were found to be very useful and skills were put into practice in an audit of the Danish site immediately.

The participants commented that it made them think about their personal strengths and weaknesses, and that they would play to these during subsequent audits. They were also very positive about what they had learnt during the course – they felt it would help them to choose more effective audit teams in the future.



EXPERIENCE STATEMENT

SUSTAINABILITY STRATEGY DEVELOPMENT

INTRODUCTION

Companies which have established an EMS are beginning to realise that this is only the first step in a process of evolution towards a sustainable business which meets the needs and expectations of all of its stakeholders in the long term.

The concept of sustainability is multi-dimensional, involving economic, environmental and social issues. Even the environmental dimension has many facets. This complexity makes it difficult to identify where to start or what steps to take in practice.

EMAG can help companies understand the different elements of sustainable development and their relevance to the business. We can benchmark companies against the performance of the best companies worldwide and the best in their sector, and we can help companies use this information to develop strategies to meet their sustainability goals in the short, medium and long term.

- **Identifying the characteristics of sustainable businesses**
- **Benchmarking**
- **Identification of strategic goals and development of programmes to meet the goals**

KEY ISSUES

Understanding sustainability

We work closely with you to help you understand what sustainability means for your business.

Benchmarking

We can then develop a system for measuring how well your business is performing in comparison to the best companies, in general, in relevant comparable sectors and/or in your own sector.

Developing a strategy

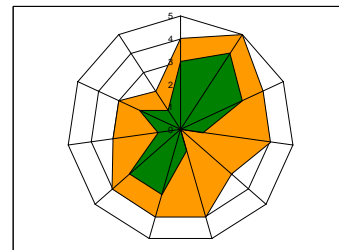
Based on your current performance and the results of the benchmarking, we can then help you identify the most appropriate strategic objectives for your business according to your overall business goals in the short, medium and long term.

Implementing the strategy

We can help you develop the strategic objectives into specific targets and implementation plans.

RELEVANT PROJECTS

- For an automotive company, development of a set of indicators of sustainable business performance and benchmarking of the company's performance against those of best companies worldwide and in the automotive sector, based on publicly available information.
- Development of a sustainability strategy for a company in the automotive sector including strategic objectives, quantified targets and outline implementation plans across the range of performance areas, in line with the company's overall goal.
- For the Society of Motor Manufacturers and Traders, providing assistance with the implementation of its sustainability strategy, particularly in relation to the automotive supply chain. The work involved preparing and presenting a business case and best practice guidelines on sustainable development.



SUMMARY RESUMES

Christine Hemming

Christine has worked with companies helping them to understand sustainable development in practice and on the benchmarking of performance.

Shirley Pugh

Shirley has carried out benchmarking assessments and helped companies understand and measure their own sustainability performance.

Clare Moody

Clare has carried out benchmarking assessments of the performance of several companies across a range of sectors.

Ted Rosser

Ted has carried out benchmarking assessments and supply chain assessments involving environmental and ethical issues.

James Smith

James has developed and applied an approach to sustainable development review to help senior managers understand the issues.