Member firms of the Association of Consulting Engineers of Ireland (ACEI) have a thorough understanding of environmental issues and adhere to the principle that the integration of environmentally sound policies into engineering practice is an essential requirement for sustainable development. These member firms, which practice in civil, structural, mechanical, electrical and other engineering disciplines possess the knowledge and skills to recognise and advise upon the impacts, whether beneficial or detrimental, of an engineering project.

Consulting Engineers accept the challenge of the endangered environment. Because of their professional training and background, they have a particular role and responsibility towards protection of the environment. Engineers must and do provide leadership in achieving sustainable development, development which will meet the long term needs of future generations without causing major modification to the earth’s ecosystems.

Traditionally, the engineer has been seen as one who solves problems, one whose task it is to deliver solutions within the constraints applied by time, money and available knowledge. However, today’s engineers must add to these constraints the necessity to ensure sustainable development. Consulting Engineers must be pro-active and creative in seeking to bring environmental concerns into the design phase of engineering.To achieve this manner of operating, the Association of Consulting Engineers of Ireland has adopted a set of values which invokes a responsibility to find sustainable engineering solutions.These values expand the definition of the engineer beyond that of just problem solving to problem solving with the additional specific goal of enhancing the quality of life for all and preserving the quality of their environment.

It is the policy of the Association of Consulting Engineers of Ireland that the role of the engineer in the context of sustainable development should result in:

• careful evaluation of the environmental benefits and of the adverse impacts of proposed projects;

• conservation of energy;

• reduction in the use of non-renewable resources and increased re-use of materials;

• reduced waste production by means of improved industrial processes, better transportation and distribution systems and recycling of waste products;

• sound agricultural and other land-management practices;

• restoration or improvement of damaged land, polluted water supplies and disturbed ecosystems;

• effective transfer of environmental knowledge and experience.

The implementation of this policy means that consulting engineers take a leading role in defining and recommending effective sustainable development practice. Short-term costs to consumers which may be associated with the choice of sustainable development should be contrasted with the long-termcost to future generations if unsustainable choices are made. Consulting engineers may find it necessary to refrain from participating in a project if it becomes clear that the uncertainties regarding the potentially negative impact of a project on the environment far outweighs the potential benefits.

Consulting engineers should and do inform their clients of the uncertainties associated with any major development project. The necessary resources must be made available to the engineer to allow him carry out sufficient investigation to establish the likely life cycle consequences of alternative proposals. Very often the application of a sustainable development ethic will conflict with the desires and needs of society. Since sustainable development cannot be successful without community support, engineers must communicate with the public to help find suitable solutions between conflicting interests.

In Ireland, there is a statutory requirement to provide an Environmental Impact Statement on particular classes of project which are considered to potentially have a significant impact on the environment. Consulting engineers posses the knowledge and skills necessary to prepare Environmental Impact Statements on such projects. By mobilising additional skills where necessary in specific disciplines such as archaeology, zoology, botany, etc, the consultant can carry out all the baseline studies required to achieve a complete and authoritative environmental impact assessment of development projects.

In summary, member firms of the Association of Consulting Engineers of Ireland play a critical role in implementing sustainable development and in beneficial management of the environment. They recognise that the consequences of unsustainable development will have negative impacts on future generations. They recognise that the skills they possess to improve the quality of life for the present generation can be harnessed to meet the long term needs of future generations. And they adhere to a code of conduct which includes a commitment to strive for sound environmental solutions in the exercise of their professional duties.