First edition
2002-11-01

Environmental management — Integrating environmental aspects into product design and development

Management environnemental — Intégration des aspects environnementaux dans la conception et le développement de produit

Reference number
ISO/TR 14062:2002(E)

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Published in Switzerland

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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard (“state of the art”, for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

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ISO/TR 14062 was prepared by Technical Committee ISO/TC 207, *Environmental management*.

Introduction

All products, that is, all goods or services, have some impact on the environment, which may occur at any or all stages of the product's life cycle: raw material acquisition, manufacture, distribution, use and disposal. These impacts may range from slight to significant; they may be short-term or long-term; and they may occur at the local, regional or global level (or combination thereof).

The interest of customers, users, developers and others in the environmental aspects and impacts of products is increasing. This interest is reflected in discussions among business, consumers, governments and non-governmental organizations concerning sustainable development, eco-efficiency, design for the environment, product stewardship, international agreements, trade measures, national legislation, and government or sector based voluntary initiatives. This interest is also reflected in the economics of various market segments that are recognizing and taking advantage of these new approaches to product design. These new approaches may result in improved resource and process efficiencies, potential product differentiation, reduction in regulatory burden and potential liability, and costs savings. In addition, globalization of markets, shifts in sourcing, manufacturing and distributing all influence the supply chain, and therefore have an impact on the environment.

More organizations are coming to realize that there are substantial benefits in integrating environmental aspects into product design and development. Some of these benefits may include: lower costs, stimulation of innovation, new business opportunities, and improved product quality.

Anticipating or identifying the environmental aspects of a product throughout its life cycle may be complex. It is important to consider its function within the context of the system where it will be used. A product's environmental aspects must also be balanced against other factors, such as the product's intended function, performance, safety and health, cost, marketability, quality, and legal and regulatory requirements.

The process of integrating environmental aspects into product design and development is continual and flexible, promoting creativity and maximizing innovation and opportunities for environmental improvement. As a basis for this integration, environmental issues may be addressed in the policies and strategies of the organization involved.

Early identification and planning enables organizations to make effective decisions about environmental aspects that they control and to better understand how their decisions may affect environmental aspects controlled by others, i.e. at the raw material acquisition or end-of-life stages.

This Technical Report is intended for use by all those involved in the design and development of products, regardless of organization type, size, location and complexity, and for all types of products whether new or modified. It is written for those directly involved in the process of product design and development and for those responsible for the policy/decision making process. The information provided by this Technical Report may also be of interest to external stakeholders who are not directly involved in the product design and development process.