IETC's main role is to promote the transfer and use of Environmentally Sound Technologies (ESTs) to address urban environmental problems, such as construction, sewage, air pollution, solid waste and energy-efficiency, and the management of freshwater resources to developing countries and countries with economies in transition. The Centre serves as a conduit for the acquisition and dissemination of information and knowledge for the promotion and transfer of ESTs.

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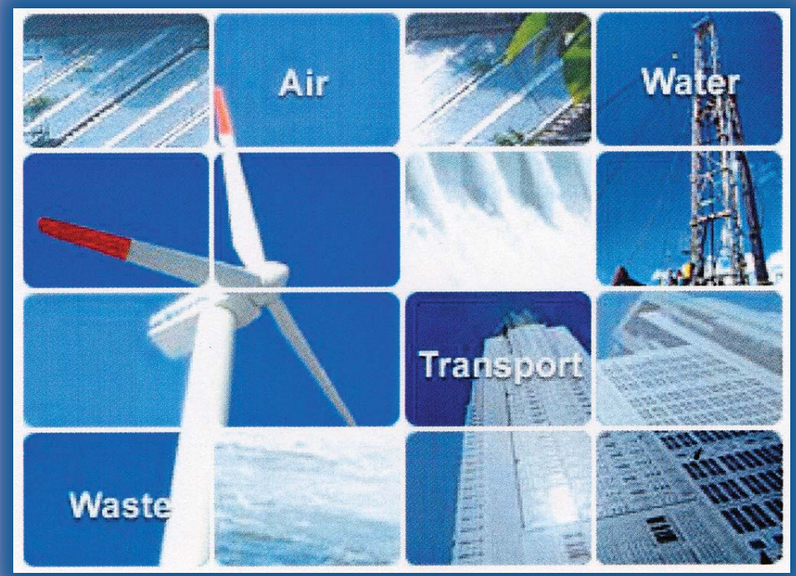
Technology Transfer for Sustainable Development

Context Challenges Choice Certainty Communication Capacity Commitment



Making it Happen!

INTERNATIONAL ENVIRONMENTAL TECHNOLOGY CENTRE

UNEP

Transfer of Environmentally Sound Technologies

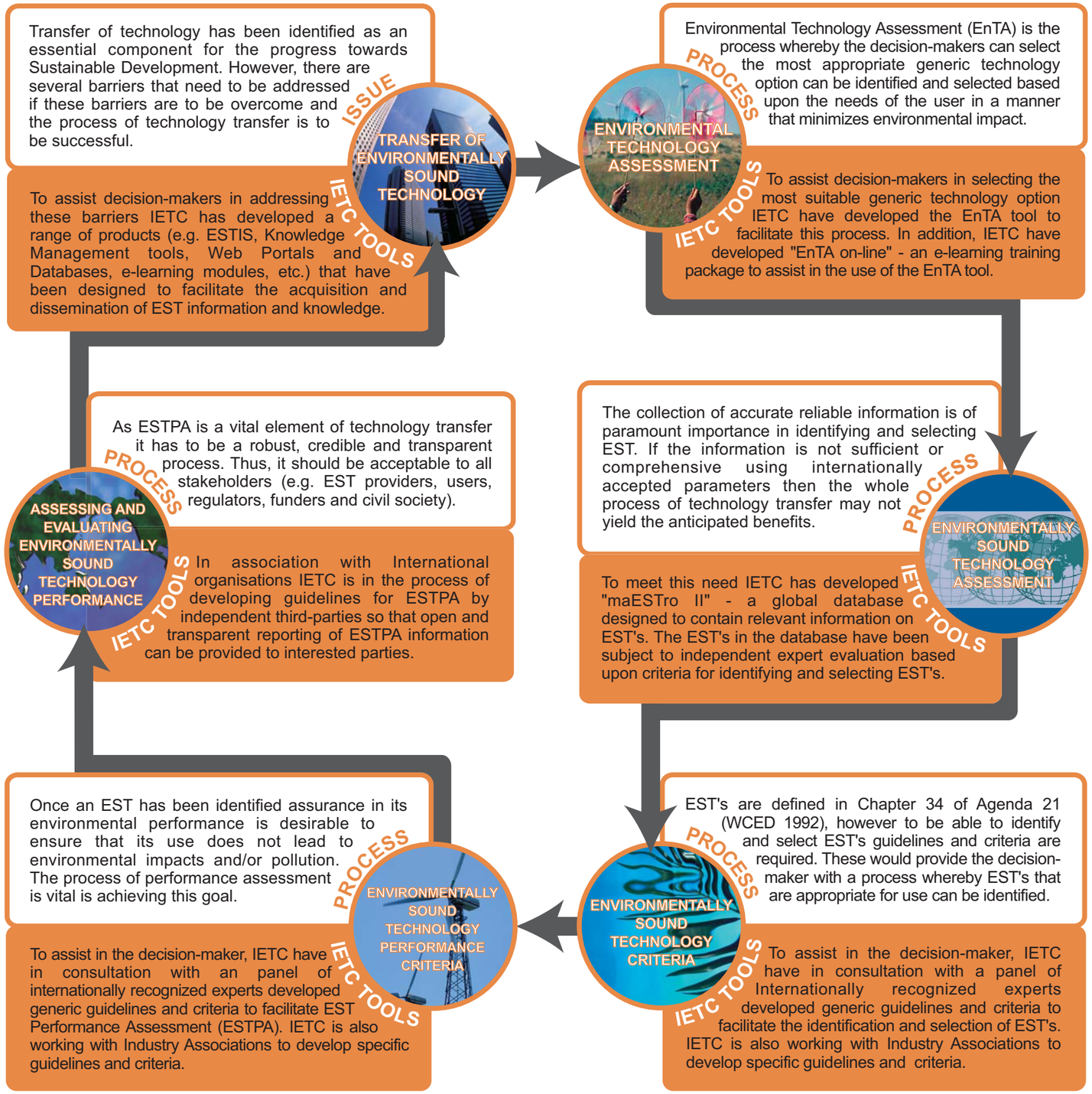
UNEP IETC takes a broad view of "Technology" to mean not only machines and equipment, but also the skills, abilities, knowledge, systems and processes necessary to make things happen. Thus technologies are total systems that include know-how, procedures, goods and services, as well as organisational and operational measures.

A "technology transfer" is a structural process of learning. The key component of a transfer is knowledge derived from real-world experience together with human expertise capable of transforming that knowledge into action. UNEP IETC provides inputs to the functions that constitute a technology transfer, which include the coordination between technology developers and users; a facilitative environment that is supportive of entrepreneurship and networks and collaboration for information, finance and other pertinent resources.

Successful transfer of Environmentally Sound Technologies (ESTs) is essential to facilitating development and enhancing sustainability, especially in developing countries and countries with economies in transition. Broad involvement of a range of stakeholders is essential for a more rapid uptake of ESTs. Recognizing this, the Rio Declaration on Environment and Development (Rio de Janeiro, 1992) specifically mentions in Chapter 34: *"States should cooperate... by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies."*

Chapter 34 of Agenda 21 has defined ESTs as technologies which protect the environment, are less polluting, use all resources in a sustainable manner, recycle more of their wastes and products, and handle residual wastes in a more acceptable manner than the technologies for which they are substitutes.

UNEP IETC focuses on the need for ESTs that must be underpinned by the concomitant development of more holistic environmental management strategies. Linked to this is the need for 'self-seeding', culturally appropriate, ecologically sustainable technologies and infrastructure. Transparency, accountability and good governance are fundamental prerequisites. Baselines, benchmarks, codes of practice and indicators are tools for assessing technology performance on a continual basis.



ESTs and Multilateral Environment Agreements

It is clear that for broad-based sustainable development, we need to apply sustainability criteria to all technology, and the transition of all technology to be more environmentally sound; capture the full life cycle flow of the material, energy and water in the production and consumption system; include closed system technologies, as well as environmental technologies that may result in reduced emissions; and considers technology development within both the ecological and social context.

Building facilitative rationale for the identification, uptake and use of ESTs can be found in a number of Multilateral Environmental Agreements (MEA) and conventions. Many of the requirements and obligations under these MEAs can be met through the use of ESTs.

For example, three conventions developed under UNEP auspices provide an international framework governing the environmentally sound management of hazardous chemicals throughout their lifestyles. These include (1) the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, (2) The Rotterdam Convention on the Prior Informed Consent (PICs) Procedure for Certain Hazardous Chemicals and Pesticides in Trade, and (3) The Stockholm Convention on Persistent Organic Pollutants (POPs). Together the Basel, Rotterdam and Stockholm Conventions cover key elements of "cradle-to-grave" management of hazardous chemicals and wastes.

The issues covered by the three conventions, such as existing and new chemicals, comprehensive waste management strategies, environmental releases, information and hazard communication, etc. are essentially facilitated by a comprehensive strategic framework built around ESTs.

ESTs therefore play a critical role in implementing environmentally sound management practices that help in meeting MEA obligations and requirements. What is essential is, on one hand, to promote shared responsibility and cooperative efforts among different stakeholders in order to protect human health and the environment and on the other, to promote use of ESTs by facilitating information exchange about their characteristics, by providing for a national decision-making process on their development and use, and by disseminating these decisions to all stakeholders.