

# The Partnership for Action on Computing Equipment

## What is the Partnership for Action on Computing Equipment - PACE?

The Partnership for Action on Computing Equipment (PACE) is a multi-stakeholder partnership established to address the environmentally sound management of used and end-of-life computing equipment. The multi-stakeholder Working Group, comprised of representatives of personal computer manufacturers, recyclers, international organizations, academia, environmental groups and governments developed the proposed scope of work, terms of reference, financial arrangements, and structure of PACE. The Partnership was launched at the ninth meeting of the Conference of the Parties to the Basel Convention, which took place in Bali, Indonesia in June 2008.

The PACE Working Group continues to seek a balanced and diverse partnership and welcomes new members with special expertise, especially original equipment manufacturers, refurbishers, recyclers, as well as academia, environmental groups, international organizations and governments.



### Why PACE?

Personal computing equipment has improved the lives of people everywhere. As global use expands, society everywhere faces new challenges from the impacts of the entire life-cycle of computing equipment. The total personal computer units sold globally increased from about 170 million units in 2000 to about 370 million in 2010 and this trend will continue in the coming years. According to United Nations Environment Programme, some 20 to 50 million metric tonnes of e-waste are generated worldwide every year, comprising more than 5% of all municipal solid waste. As markets expand and communities gain the benefits of increased access to information technology, many developing countries and countries with economies in transition, face new

challenges in managing electronic products at their end-of-life.

All stakeholders, including original equipment manufacturers, consumers and recyclers, have a role in promoting environmentally sound management of used and end-of-life computing equipment. The technology and skills are available to promote environmentally sound management, including proper repair and refurbishment that can extend use, provide employment, and make valuable equipment available for reuse by individuals, businesses or in schools etc. Furthermore, those products which cannot be reused can be directed to environmentally sound material recovery and recycling, which can reclaim base and precious metals, and conserve resources and energy.

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#### **Benefits of PACE**

PACE intends to create sustainable commercial practices with economic and environmental benefits to all participants, and in particular to developing countries and countries with economies in transition. It provides a forum for governments, industry leaders, non-governmental organizations and academia to improve the current management of used and end-of-life computing equipment through the development of global refurbishment and material recovery/recycling guidelines on the environmentally sound management of computing equipment.

Furthermore, PACE offers opportunities for stakeholders:

- to discuss and develop innovative practical approaches that would uphold the triple bottom line of social, environmental and economic progress;
- to influence decision making in many countries on approaches to be taken to manage used and end-oflife computing equipment, as over 175 (as of June 2011) countries are Parties to the Basel Convention;
- to assist in building capacity in developing countries and countries with economies in transition; and
- to forge new alliances and offer immense networking opportunities.

### Aims of the Partnership

The Partnership on used and end-of-life computing equipment aims to provide new and innovative approaches for addressing emerging issues. It also aims to:

- promote sustainable development through efforts to repair, refurbish and reuse computing equipment worldwide;
- find incentives and methods to divert end-of-life personal computers from land disposal and burning into environmentally sound commercial material recovery/ recycling operations;

- develop technical guidelines for proper repair, refurbishing and material recovery/recycling, transboundary movement of used and end-of-life computing equipment, including criteria for testing, labelling of refurbished used equipment and certification of environmentally sound repair, refurbishing and recycling facilities; and
- end shipment of used and end-of-life computing equipment to countries, in particular developing countries and countries with economies in transition, which are illegal to import under their domestic laws.

PACE activities will also include pilot demonstration projects to assist developing countries and countries with economies in transition in assessing the current situation of used and end-of-life computing equipment in their countries, and to achieve the Partnership and the Basel Convention objectives.





#### Scope

The Partnership covers Personal Computers (PCs) and associated displays, printers and peripherals, that include: personal desk top computer, including the central processing unit and all other parts contained in the computer; personal notebooks and laptop computers, including the docking station, central processing unit and all other parts contained in the computer; computer monitors, including the following types of computer monitors: (a) cathode ray tube (b) liquid crystal display(c) plasma; computer keyboards, mouse, and cables; Computer printers: (a) including the following types of computer printer: (i) dot matrix (ii) ink jet (iii) laser (iv) thermal and (b) including any computer printer with scanning or facsimile capabilities, or both.

#### Past achievements

The PACE Working Group is an open forum for all interested Parties, Signatories to the Basel Convention, Basel Convention Regional and Coordinating Centres (BCRCs), international organizations, industry, Non-Governmental Organizations (NGOs), and academia. It elaborated its scope, work plan, terms of reference, financial arrangements and established four project groups to launch projects to implement 4 agreed activities which were foundation for the development of more detailed work plan:

- develop tools (inter alia guidelines) and activities on environmentally sound refurbishment/repair, including criteria for testing, certification, and labelling;
- develop tools (inter alia guidelines) and activities on environmentally sound recycling and material recovery, including facility certification;
- develop and promote pilot schemes for environmentally sound management of used and end-of-life computing equipment towards the achievement of United Nations Millennium Development Goals; and
- develop awareness-raising and training program activities.

In addition, an Ad Interim Project Group was established to prepare environmentally sound management criteria recommendations to be used by other project groups when developing the above-mentioned guidelines. Also, a sub-group on transboundary movement of used and end-of-life computing equipment was established to develop procedures on transboundary movement of used and end-of-life computing equipment. It also requested the Secretariat of the Basel Convention to facilitate and provide expertise to the PACE and to collaborate with the Secretariat of the "Solving the E-Waste Problem" (StEP) initiative. The PACE Working Group agreed to meet physically at least twice per year and by conference calls, as required.

#### Where we are now?

The following tasks have been achieved. The Partnership

- identified relevant existing environmentally sound management guidance materials and prepared a report on environmentally sound management criteria recommendations that were used by other Project Groups;
- completed guidelines, one on environmentally sound testing, refurbishment and repair of used computing equipment; and the second one on environmentally sound material recovery and recycling of end-of-life computing equipment;
- initiated the process to identify countries for pilot projects on collection and management of end-of-life computing equipment from informal sectors in developing countries and countries with economies in transition, which should divert end-of-life computing equipment from landfills and open-pit burning;
- finalized guidance on transboundary movement of used and end-of-life computing equipment;

- prepared an overall guidance document on environmentally sound management of used and end-of-life computing equipment; and
- developed awareness-raising and training products such as PACE logo, and the film on management of e-waste.

## What's next?

The two guidelines (environmentally sound testing, refurbishment, and repair of used computing equipment; and environmentally sound material recovery and recycling of end-of-life computing equipment) will be evaluated by companies in their operating facilities. These guidelines will be revised based on recommendations provided from practical evaluations. Pilot projects on collection and management of end-of-life computing equipment from informal sectors in developing countries and countries with economies in transition will continue as well as development of a strategy for long-term financial sustainability of these projects. Finally, the project group on awareness raising and training will continue with the implementation of many of its activities, in particular organizing training workshops on guidelines developed under PACE.

Stakeholders interested in joining PACE Working Group or one or more of the Project Groups are invited to contact the Secretariat of the Basel Convention.



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