

Reducing the Environmental Impact of Our Dry Labs

Our vision at Eastman Kodak Company (Kodak) is to make measurable improvements in the environmental aspects of our products, services and operations—and to do so continually. In order to realize this vision, Kodak operations and employees around the world work together to protect the quality of the environment and the health and safety of our employees, customers, and neighbors.

Kodak is committed to sustainability worldwide. We recognize our role in helping society prosper by driving business growth in a responsible manner that creates value for all stakeholders. Kodak's commitment to global sustainability is illustrated by our latest set of aggressive voluntary goals. Established in 2006, the Company's new responsible growth goals focus on continuous improvement in the areas of social responsibility, product responsibility and operational responsibility.

We are proud to be externally recognized for the results that our focus on high ethical standards and sound corporate governance has achieved. Some examples include membership on the Dow Jones Sustainability and the Financial Times Sustainability Exchange (FTSE4Good) Indexes. Also, Kodak was named to the "Global 100 Most Sustainable Corporations in the World" for the third year. Kodak has received an A+ rating on the Pacific Sustainability Index. Covalence Ethical Ranking analyzed 20 multinational companies in the entertainment and leisure sector and Kodak ranked within the top seven for Best Ethical Score, Best Ethical Progress and Best Reported Performance.

Our corporate commitment to sustainable growth drives efforts to reduce environmental impact at the product level. This paper describes how a combination of responsible material choices and the power of the digital technology at work in Kodak's dry labs help minimize waste at all stages of this product's life cycle.

Responsible Material Selection

Preparation for the safe disposal of our dry labs begins during the design phase as product development teams select the components of the equipment. All components of the dry labs are composed of materials that are below the most restrictive regulatory thresholds for lead, mercury, chromium VI, cadmium and brominated flame-retardants. The thermal donor media used in the system's printers is made of non-hazardous, recyclable plastics. The thermal photo paper comes from PEFC (Programme for the Endorsement of Forest Certification schemes) certified sources demonstrating our commitment to sustainable forest management practices.

Reduced Carbon Footprint

As public concern about climate change grows, there is increasing demand to minimize or offset greenhouse gas emissions resulting from fossil fuel combustion. Carbon footprint, which is a measure of the total emissions across a product life cycle, is becoming more valuable as a tool for appealing to the green consumer.

Calculating a carbon footprint is not as easy as it might seem. Current practice is for every organization to define the approach, including the data and assumptions that should be used, uniquely. Given this disparity, consumers attempting to decipher on-product carbon labels may be unknowingly comparing apples to oranges and, hence, making inaccurate product comparisons.

Fortunately for the corporate product stewardship and marketing communities, there is some momentum building around creating a common framework that resolves gaps in both definition and methodology. Carbon Trust and the UK Government Department of Environment, Food, and Rural Affairs (DEFRA) are sponsoring a British Standards Institute to develop a specification for carbon footprint calculations for consumer products and services. Kodak continues to monitor the progress of the experts in this arena. As a standard becomes available, we will begin to integrate this measure, along with other indicators of environmental impact, into our current product design and communications strategy.

Even without a standard methodology, the company is keenly aware that the greatest difference between the carbon footprint of a traditional silver halide (AgX) photo minilab and our dry labs will be seen during customer use. In order to illustrate this, we compared the energy use of the following representative systems in a retail setting: the KODAK Adaptive Picture Exchange (APEX), NORITSU QSS-2711DLS, FRONTIER 340 Digital Mini Lab, FUJI FRONTIER 570 Digital Mini Lab, and GRETAG Master Lab+ 742. The electricity required by each system to deliver a standard print volume, 1000 prints per 24-hr period, was measured and used to calculate total energy consumption per 4 x 6 print.

The energy analysis described above suggested that Kodak's dry labs consume 70-90% less energy than traditional silver halide photo minilabs, which translates to an annual cost savings of \$1-\$1.5K USD. Several product attributes influence this result, including increased print speed and the absence of photo processing chemistry, which drives extended operation in more energy intensive operating modes.

In addition to reduced energy demand during retail use, the transition to a dry lab has many other environmental benefits. A few examples are highlighted below:

- The chemical compositions of thermal media (receiver and donor) use fewer steps in their manufacturing process than traditional AgX papers. The use of fewer raw materials translates directly to lower greenhouse gas emissions during manufacture.
- Our supplier's operations are housed in self-contained industrial parks. Equipment components are co-located with product assembly operations to minimize the impacts due to transportation of semi-finished goods.
- Most components of the dry lab are customer replaceable, which eliminates the need for a service technician to travel to the retail site. The result is reduced fuel consumption and greenhouse gas emissions.

Less Waste, No Water Consumption

Thanks to digital print technology, our dry labs do not use photo-processing chemistry or water. They do not produce wastewater or indoor air contaminants. They also do not require the use of auxiliary equipment, such as silver recovery units. The APEX saves 1,500-3,400 liters/year of water as compared with representative AgX labs (FUJI FRONTIER 340 Lab, NORITSU 3213 Standard Lab, NORITSU 3300 DLS Lab, KIS Photo-Me 1550 / Kodak System 89 DLS Minilab; standard volume = 1000 4x6 prints/day).

Since 2003 we've also been working to reduce the shipping materials used for the media and print kits for our KODAK Photo Printer 6800 Series and KODAK 7000 Photo Printer. In 2003, our package consisted of 2.5 lbs. of materials. Our latest shipments now weigh in at only 0.7 lbs. of packaging. We have eliminated the molded pulp insert, a bubble wrap bag, and we have reduced the shipping case size. These smaller packages have also reduced our pallet usage by 50%.

With our fleet of over 90,000 KODAK Picture Kiosks around the world, and the rapid success of the APEX, when we make a change to media packaging, Kodak can make a big impact for your business and the planet. In 2008 alone we estimate we will save over 7.2 million lbs. of packaging. That's equivalent to the weight of approximately 109 Humpback whales.

Our Continued Commitment

Kodak recognizes that expectations regarding sustainability continue to grow, and our social responsibility strategy continues to evolve to meet this demand. The company has established stringent corporate standards that provide the framework for the sustainable design, use, and disposal of our products. Together with a comprehensive assessment of products during commercialization, these standards ensure that future products not only meet regulatory requirements, but also continue to be produced in a responsible manner.