



# INFOIMAGING@Kodak

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Infoimaging is an unfamiliar word. It's not even in the dictionary. Webster's unabridged version has more than 470,000 listings—and "infoimaging" is not one of them. But just because infoimaging isn't in the dictionary doesn't mean it's not real. It's absolutely real.

**And it's worth \$385 billion.**

Just to clarify, here's what infoimaging isn't. It's not a fancy way of saying "pictures." It isn't a slogan or an ad campaign. It's not trademarked. It's not a product. And it's not just a commercial or B2B opportunity.

Rather, infoimaging is an industry—one created by the convergence of image science and information technology. Infoimaging takes information sharing to a new level. It is the evolution of communication through pictures—both moving and still. Consumer and commercial. Traditional and digital.

#### **INFOIMAGING IS...**

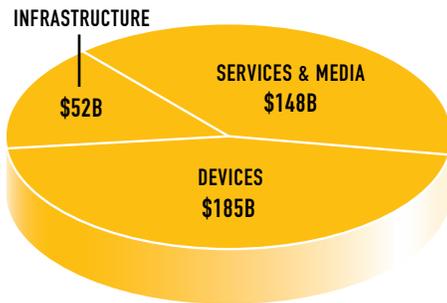
- When Australian timber growers are able to make more informed decisions—and decrease their costs—by supplanting manual crop inspections with color infrared aerial images and analysis software.
- When a consumer logs on to the Internet to track down, view and purchase a hard-to-find auto part.
- When four doctors in four different cities simultaneously view a scanned and digitized X-ray and make a diagnosis on a patient who's in a fifth city.
- When a homebuyer finds the perfect house while scanning a real estate web site from another continent.
- When the parents of a newborn snap pictures using a digital camera and e-mail them to grandparents on the other side of the country.

But infoimaging is about more than just combining pictures with information. It represents the very moment when pictures become information. Infoimaging is about images—enabled by technology—improving communication and commerce and creating significant new revenue and market opportunities for businesses around the world.

Look at it this way: Kodak, Fuji, Agfa, Canon and others are not just members of the “imaging industry.” Rather, these companies, along with Hewlett-Packard, Sony, Cisco, IBM, Sun and many others, are players in the burgeoning \$385 billion infoimaging industry. An industry that is growing rapidly—at a 10% pace—with incredible headroom. One in which no single company has more than 6 percent share—and most have less than 2 percent share.

### THREE MARKETS IN ONE

The \$385 billion infoimaging pie slices into three big pieces. This trio of inter-related sectors—devices, infrastructure and services/media—connects to form the infoimaging market.



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### DEVICES

In shorthand, devices are products that capture, view, digitize and output images and information. Things like digital cameras, scanners, printers, PDAs, wireless devices and interactive TV. And, what’s more, computers, gaming systems and mobile phones are important enablers of infoimaging that are yet to be included in the market size for devices.

Key players in this sector are Canon and its line of cameras and printers; Fuji’s cameras; Hewlett-Packard’s printers, cameras and scanners; Kodak’s portfolio of traditional and digital cameras (and myriad other devices); Lexmark’s printers; Palm’s PDAs; and Sony’s cameras.

Devices make up about \$185 billion of the infoimaging industry. Although devices tend to have a fast cycle time and do not have the highest profit margin, they contribute the greatest value when they are linked to infrastructure and services/media to meet customers’ needs.

### INFRASTRUCTURE

Infrastructure allows images to be processed, stored, edited, transformed, transported and distributed. It’s hardware and software, including optical networks, routers and switches, servers, online imaging networks, standardized imaging software, imaging protocols and retail photofinishing networks (both traditional and online).

Key players in the infrastructure category include AT&T’s optical networks, Adobe’s imaging software, Cisco Systems’ routers and switches, Corning’s fiber-optic cable, Kodak’s Interactive Data Language visualization software and photofinishing networks, Microsoft’s operating systems, and Sun servers.

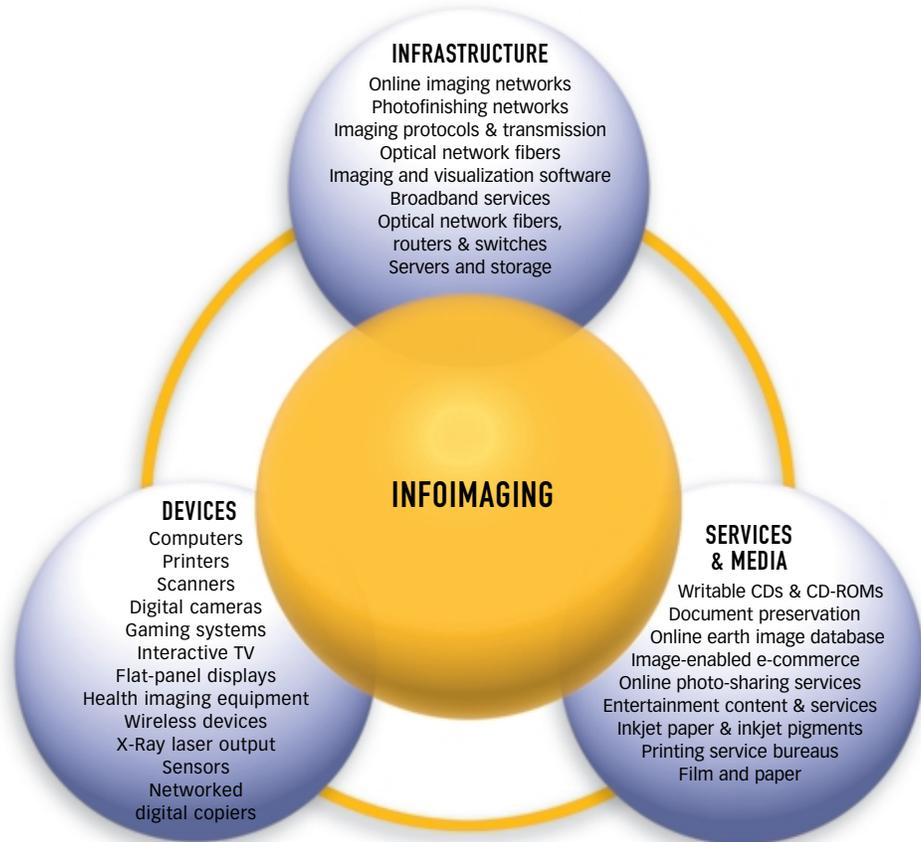
Infrastructure also has a \$52 billion slice of the infoimaging pie. But it’s growing very fast, with higher margins. And it’s an important component that enables customers to get to services/media—which is a \$148 billion hunk of the pie.

### SERVICES/MEDIA

Services and media allow images to be shared and preserved. This includes applications and products that allow merged information/images to be presented—including photo printing, storing and sharing; specific application software; document preservation; and media like inkjet paper, ink and CDs. And, of course, film and paper.

Key players in the services and media subset include Agfa’s film and paper, AOL/Time Warner’s You’ve Got Pictures!, initiative with Kodak’s entertainment content and services, eBay’s online auction site, Fuji’s film and paper, and Kodak’s film, paper, inks and other media.

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### KODAK TOUCHES ALL THREE

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### DEVICES

Kodak's infoimaging devices are critical to a wide range of markets, including consumer, health, professional, business-to-business and government. Pivotal in Kodak's portfolio are traditional cameras, OLED screens and digital cameras, not to mention scanners, image sensors, printers and other devices.

### INFRASTRUCTURE

Kodak's infrastructure-based initiatives include RF wireless image standards for local image sharing, visualization software and photofinishing networks and software.

### SERVICES/MEDIA

Along with traditional film and paper, Kodak produces inkjet paper and ink, Kodak Picture CDs and thermal media. In addition, Web-based services such as Ofoto and the AOL/Time Warner You've Got Pictures! initiative with Kodak's entertainment content and services, as well as the Kodak Picture Center online service in cooperation with leading national retailers.

But a list of separate initiatives within each segment misses the point. The key word is connection. These days, making stand-alone devices is a daunting proposition. It's low-margin, with a fast cycle time. But, rather, making devices that attract people to your value chain—and immediately putting them on your network and connecting into services and media—is a much rosier picture. And it's this integrated value chain that leads to customer loyalty.

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### **INFOIMAGING IN ACTION**

Kodak is producing an infoimaging anthology of three-pronged success stories—victories that stand on all three platforms of devices, infrastructure and services and media. The convergence of all three is crucial in providing an infoimaging solution and creating business impact.

Each of Kodak's business units has good stories to tell. For instance:



#### **PHONES, CAMERAS AND EMAIL—COMMUNICATION THAT'S STICKING**

Although wireless communication has enhanced the lives of millions—saving time and increasing convenience—the impact on consumers has largely been confined to voice and text communication. Visual communication via wireless connections hasn't gained much steam—until now. Kodak Japan recently launched an infoimaging application that enables wireless users to share and print images via their wireless devices. In early 2002, Kodak Japan announced an agreement with J-PHONE Co., Ltd., a leader of mobile communications in Japan, that enables J-PHONE wireless users to transmit images as e-mail attachments across wireless networks (**infrastructure**) from their cell phones (**devices**) to Kodak labs for printing in the form of photo stickers (**media**). It works by taking a photo using a J-PHONE mobile phone with a built in digital camera. Through the use of "Sha-Mail" wireless network, the digital images can then be e-mailed to friends and family or sent to order photo stickers. The Kodak lab makes prints of the digital image as photo stickers, which are then delivered in days. Kodak Japan expects the ordering of photo stickers to increase to 10,000 pieces a month by the end of 2002 from an initial volume of about 100 pieces a month.



#### **SEVENTY MILLION ONE HUNDRED AND ONE, SEVENTY MILLION ONE HUNDRED AND TWO...**

In 1995, the United Nations passed a resolution calling for its 117 member countries to compile national census data by 2004. The process of counting populations—often by hand—can be arduous, time-consuming and error-riddled. Solutions from Kodak—based on Document Imaging technologies—are helping 30 countries speed their counts and make them more accurate. After residents fill out paper census forms by hand, those forms are scanned using Kodak's high-speed production document scanners—devices that digitize the paper census forms. The digitized census forms are then electronically counted using software and IT infrastructure, which is faster, more accurate and less expensive than manually counting paper forms. Additionally, countries such as the United States and the United Kingdom are preserving the data by converting the digitized images to microfilm. That's scanners (**devices**), software and IT systems (**infrastructure**), and microfilm (**media**). Among the high-lights: Turkey completed its 1997 population count within 85 days—compared to three years for its 1990 census.



### JUST WHAT THE DOCTOR ORDERED— INCREASED PRODUCTIVITY AND IMPROVED PATIENT CARE

Before infoimaging, the medical imaging process was lengthy and costly. A traditional X-ray image would be taken in an examination room. From there, the film would be taken to a lab to be processed, and then someone would have to carry the image to a doctor for review. After a diagnosis was made, someone would have to log the patient's information, attach it to the image, and place both pieces of information in a folder to be filed. Because of the number of steps involved, more staff was necessary, images could be lost or misfiled, and the time between imaging and diagnosis was long. Seeking a better way, Newton-Wellesley Hospital purchased a suite of Kodak's Health Imaging products. By using the Kodak DirectView 9000 (device), the medical image is captured and appears on a monitor at a nearby workstation within seconds. Radiologic technologists can determine if additional image captures are required or opt to print the image from the workstation (media). By using the Kodak DirectView CR 900 computed radiography system, an X-ray can be captured by traditional imaging equipment on a cassette. The Kodak DirectView cassette (media) is then placed in the Kodak DirectView CR 900 to be digitized, then transmitted via a network (infrastructure) to one of two Kodak operations panels where the image quality can be enhanced and the image printed. The hospital is now considering the implementation of a Kodak DirectView PACS (picture archiving and communications system) that will enable a patient's images to be archived and sent to physicians at remote locations via telecommunications and data networks.



### DIGITAL CINEMA SOLUTION GETS RAVE REVIEWS FROM THEATRES AND MOVIEGOERS

Currently, staff at local movie theaters have to undertake a number of labor-intensive tasks to prepare a motion picture for projection in a theater. Kodak, however, is developing Digital Cinema technologies that will enable functions that are time-consuming and labor-intensive today to be performed with the click of a mouse. With a Digital Cinema system, all motion picture content (feature films, movies, trailers, snipes, ads, etc.) will be received as digital files—instead of being received on large reels, which have to be spliced together and joined to trailers and other film elements. In the beginning, those digital files will come on DVDs (media) but eventually satellites will be used. Once any content has been stored in the main server (infrastructure), which is part of the Kodak Digital Cinema Operating System, it can be combined with all other content to create a "playlist" for each theatre. Then with unique Kodak software, theatre managers can schedule, distribute and play the digital files from their computer keyboard using unique Kodak software and digital projectors (device). Kodak's high-quality, high-resolution, high-brightness digital projectors combine JVC's 3-million-pixel chips with Kodak's color management technology, putting more than twice the image resolution on the screen than any other digital projector. Kodak's Digital Cinema system offers studios a reliable and cost-effective means to distribute movies and other content in ways that protect them from piracy, enable them to more rapidly respond to market enthusiasm, and provide the opportunity to faithfully deliver to the screen the "look" and color the filmmaker intended.

**Studies have shown that Kodak touches three out of four images on the Internet. 75 percent. That's muscle.**

**INFOIMAGING IS THE PATH FORWARD**

Obviously, there's no turning back. We live in a "Net economy." And that economy is driven by commerce—and commerce is driven by images.

Consider the startling ways that images have added value over recent years. Radio is a \$3 billion industry. Add images, and it becomes television—a \$30 billion sector. In the realm of music, \$4.3 billion is generated in songs. Add images, and it becomes music videos—a \$15 billion bounty. Online auction sites with the absence of images are, quite simply, a \$0 proposition. But add images, and they become an \$8.5 billion opportunity.

Now apply this to infoimaging.

Think about it: studies have shown that Kodak touches three out of four images on the Internet. 75 percent. That's muscle.

And Kodak is connected to virtually every new technological development—whether aimed at consumers or the commercial segment—that is now taking place or is on the horizon. PDAs, cell phones, PCs, cameras, output—all are image-enabled.

Because Kodak is at the heart of infoimaging, the company is in the "sweet spot," so to speak, to capitalize on this burgeoning industry—to capture an additional 2 percent, 3 percent or more of this \$385 billion pie. We will do this through four growth strategies:

1. Expand the benefits of film
2. Drive output across all of our businesses
3. Make digital easier to use for both commercial customers and consumers
4. Develop new businesses in new markets

Kodak is involved in all aspects of infoimaging.

And, crucially, all of Kodak is involved.

The good news for Kodak and the other companies that comprise the industry is that infoimaging is not triggering major discontinuity. Nothing is being lost in the equation. It is purely additive. It's about convergence, and it's a staggering opportunity.

Even if it's not a word in the dictionary. Yet.

For more information about infoimaging, go to: [www.kodak.com/go/infoimaging](http://www.kodak.com/go/infoimaging)

