

WHAT'S NEXT

THE TOP 10 PRODUCTS, IDEAS, AND TRENDS



ON THE MONEY
The new Bluetooth lets cell phones make payments via special readers at cash registers.

SOUND SOLUTION
The updated standard also means easier pairing with headsets like this one from Jabra.

THE BLUE YONDER
Nokia's 6131 NFC, coming soon to the States, will be one of the first handsets to feature Bluetooth 2.1.

CLEAR PICTURE
Printers like this HP model will seamlessly pump out snaps from your phone.

ALSO INSIDE



Using H₂O to reduce CO₂



Smarter ad targeting



The toy world's next hit?

1

BLUETOOTH GETS A MAKEOVER

THERE ARE A BILLION BLUETOOTH-ENABLED DEVICES IN THE WORLD—CELL phones, headsets, cameras, keyboards, printers. Another 13 million of them are being sold every week. But that's chump change compared with the growth that analysts expect to see once a new version of the short-range wireless technology makes its way into products later this year.

Here's why: Pairing up Bluetooth devices is a laborious process that requires as many as 15 steps. "The most significant challenge that Bluetooth has faced is making the technology more usable, especially when it comes to setting up connections," says Stuart Carlaw, an analyst with New York-based ABI Research. "There is no doubt that there are more viable business models for the technology. They just need to be better supported at the most difficult point" in the user's experience. That should happen this fall, when the



first Bluetooth upgrade in three years, Bluetooth 2.1, starts shipping. Devices will be paired in as few as three clicks. Encrypted data transfer means no need for passwords. And lower power consumption means that Bluetooth 2.1 devices will have as much as five times the battery life of their predecessors.

All of which means that mass-market Bluetooth use is expected to expand far beyond the cyborg-style phone headset. Users will be able to easily beam photos from cameras to printers or digital picture frames. Wireless keyboards, mice, and videogame controllers will get a boost too. Bluetooth 2.1 will be integrated with near field communication, or NFC, a standard for mobile payments, so consumers will have more opportunities to pay with their phones.

Companies like Jabra, Motorola, and Plantronics are developing Bluetooth 2.1 gadgets that should be out in time for the holiday season. The Bluetooth Special Interest Group—a consortium backed by Intel, Microsoft, and Nokia—says the number of Bluetooth devices in the world should double to 2 billion by 2010. “Clearly, one of the goals of the new specification is to drive use of the technology and help our members sell more products,” says Kevin Keating, senior marketing manager at the Bluetooth SIG.

Sales of Bluetooth headsets alone, now at \$8 billion, are expected to hit \$14 billion within three years—aided by an increasing number of bans on driving while talking on handsets. Such bans will go into effect in states like California and Washington by next year, creating millions of potential new headset customers. “So far, the pairing aspect has been a barrier to entry compared with headsets that you plug into the phone,” says Peter Hartmann, global product manager at headset maker Jabra. “Now it will be much easier for first-time users.”

In 2008, Bluetooth 2.1 will itself be replaced by Bluetooth 3.0, code-named Seattle. That version is expected to integrate ultra-wideband technology, meaning Bluetooth that can handle the transfer of much larger amounts of data: Seattle should be a whopping 228 times faster than its predecessor. Bluetooth’s supporters expect that upgrade to have a major impact in the entertainment and consumer electronics industries, since it will enable users to transfer video between TVs and cell phones. Even Hollywood is going blue. — MICHAL LEV-RAM

2

FERTILIZING OCEANS FOR FUN AND PROFIT

What if you could save the planet from global warming—and reap vast financial rewards—by dumping iron filings off the side of a ship? That’s the tantalizing promise offered by a handful of companies that are trying to turn the cultivation of ocean-based algae into billion-dollar businesses.

The science behind ocean fertilization goes like this: When sprinkled in the form of shavings, iron spurs a bloom of fast-growing plankton that soaks up carbon dioxide as it photosynthesizes. When it decomposes, the algae sinks deep into

ocean waters, carrying the carbon with it. Drop enough iron, in theory, and the ocean becomes a vast greenhouse gas-absorbing machine. “It can suck carbon dioxide out of the atmosphere more efficiently than any other process,” says Russ George, CEO of Planktos.

George’s startup, based in Foster City, Calif., plans to launch a large-scale ocean fertilization project this month, making it the first of three such companies to get out of the starting gate.

One of its rivals, Climos, was co-founded seven months ago by Dan Whaley, founder of GetThere, which was sold for \$757 million in 2000. A second, GreenSea Venture, patented a method to control the iron fertilization process in 2002 but has yet to release details about its plans.

All three startups are chasing the opportunity created by the rapid rise of carbon-trading markets. Although slow to catch on in the United States, carbon trading is up and running in countries such as Japan and Canada that signed the Kyoto protocol, obliging them to reduce greenhouse gas output. Companies whose CO₂ output exceeds their govern-

\$30 BILLION
Estimated worldwide trade in carbon credits in 2006—more than double that of 2005

FIXING THE DAMAGE DONE

Planktos's first vessel was loaned by rock star Neil Young.

1

A boat goes out to the middle of the ocean and sprinkles micron-size iron shavings onto the surface of the water.

ments' limits can buy credits from companies like Planktos that reduce the stuff. About \$30 billion worth of carbon credits were traded in 2006, and the volume may double in 2007. States like California and Texas are set to establish the certification needed to do carbon trading this year.

Planktos isn't wasting any time. It went public in March and currently sells 1-ton carbon credits for \$5 each. Before it fully cashes in, however, Planktos will have to prove that it can measure how much carbon is being sequestered. "The ocean is a moving target," says Penny Chisholm, professor of environmental engineering at MIT. "It's just as likely that currents would carry the plankton back up to the surface, where it would release the CO₂ back into the atmosphere."

Planktos has a solution, COO William Coleman explains. Algae has to sink at least 1,000 feet below the surface before long-term carbon storage occurs, so water from these depths will be filtered and sampled for carbon content, using both an array of bottles lowered to programmed depths and a 1,500-foot hose. From there it's simple math—every ton of carbon sequestered equals about 3 tons of CO₂ removed from the atmosphere. How long does it stay gone? "At 1,000 feet we're talking decades; at 1,500 feet, centuries; and at 3,000 feet, a millennium," says Planktos spokesman David Kubiak.

Ocean fertilization on too great a scale could cause problems as well. The iron's potential side effects include oxygen depletion, the overproduction of nitrogen, and the production of carbonic acid. But Planktos says its scientists simply plan to bring the ocean's plankton levels back to those seen in 1980 (the year the first satellite photos were taken) and then stop. By that time, however, Planktos will likely not be the only company invested in the process, so putting the plankton genie back in the bottle may be harder than expected. "Climos is waiting in the wings," Kubiak admits, "and there will be a lot of other competitors following behind." — MELANIE HAIKEN

2

The iron shavings stimulate the growth of photosynthesizing algae, which uses sunlight to draw carbon dioxide out of the air.

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When the algae dies, it bleaches and sinks into the sea. If it sinks to 1,000 feet, the carbon should be trapped for decades.