

► across the world for dismantling is needlessly expensive, especially if it can be done closer to home. Building the new facilities will create jobs and mollify politicians in the wake of the *Prestige* and *Erika* oil-spills, and the debacle of the *Tricolor*, which sank in the North Sea in 2002 with 2,862 cars on board, and was subsequently struck by two other vessels.

Furthermore, the shippers will be able to make money from the recycled parts. Typically 95% of a ship's structure is reusable, most of it valuable steel. Brass, cables, refrigerators and plumbing fixtures can also be reused. In contrast to the current business model, where the ship-breakers buy the vessels from the owners outright and then sell the salvaged bits themselves, Ecodock is offering to split the proceeds with shipowners.

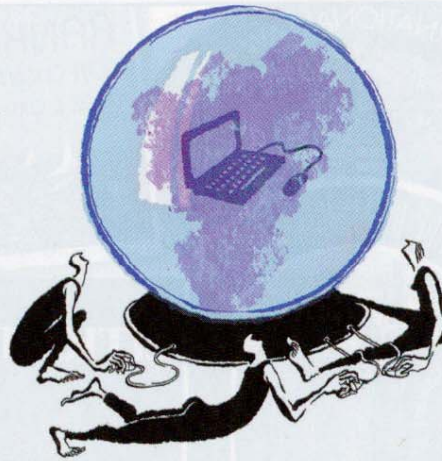
Some obstacles remain. The countries where ship-breaking now takes place sorely need that income and steel it generates, and can largely ignore nettlesome safety regulations. And the shipping firms want to keep their fleets in service for as long as possible, which could have a curious side-effect: as the decommissioning deadline approaches, companies will rush to dispose of their tankers at the last moment, overburdening whatever green facilities then exist, and leaving no alternative but to keep sending ships to the graveyard beaches of Asia. ■

Market, market, on the wall

Technology trends: If prediction markets are so good at making forecasts, why not use them to identify emerging technologies?

THE technology industry loves a prediction, and keeps legions of forecasters and futurists in business. But many predictions are wrong, technologies often arrive late, and very few live up to the hype. Why, then, are technology firms not keen users of internal prediction markets? These harness the collective brainpower of employees by giving them virtual trading accounts and virtual money, and letting them buy and sell "shares" in such things as project schedules or next quarter's sales. What are, in effect, elaborate computer games might help tech firms spot trends and make more accurate forecasts. Yet, oddly, hardly anyone is using them in this way.

Hewlett-Packard and Intel pioneered the corporate use of prediction markets, but neither seems to be using them other



than experimentally. Todd Proebsting of Microsoft says the software giant has run a dozen or so such markets, and that they quickly and cheaply capture employee sentiment on project deadlines or software quality more accurately than any other measure. Google recently said it is also using internal prediction markets. But such markets are typically used to predict internal matters, rather than to divine broader technology trends—which is, some argue, a missed opportunity. "At the moment, it's a fad that companies are trying out," grumbles Robin Hanson, an economist at George Mason University who popularised the concept of corporate prediction markets and believes they could be a powerful tool.

But can prediction markets really spot broader industry trends? There have been some attempts to find out. Perhaps the oldest technology-oriented public prediction market is the Foresight Exchange (www.ideosphere.com), which launched in 1994. Ken Kittlitz, one of its co-founders, says it has an accuracy rate of about 70% on technology questions. Among its best calls: it said a computer would beat Garry Kasparov at chess two years before it happened. But it was too bullish on demand for videophones.

Another prediction market, operated by NewsFutures, ran for a while on the website of *Technology Review*. Most of its predictions, says Emile Servan-Schreiber, NewsFutures' boss, concerned financial matters. But the market did make a few accurate predictions about technology trends: it concluded that products based on ultrawideband technology would not be commercially available by July 2004, and correctly forecast the take-up rate for internet telephony.

Even so, says Justin Wolfers, an economist at the Wharton School at the University of Pennsylvania, it is still unclear whether prediction markets really can spot tech trends. That is why he is among those closely watching the latest experiment, being carried out by Yahoo!, a big internet portal and search engine, in con-

junction with O'Reilly & Associates, a publisher of technical books and organiser of technology conferences.

In March, the two firms launched the Tech Buzz Game, "a fantasy prediction market for high-tech products, concepts and trends". Users buy shares in technologies they think will do well; the share price of a technology depends on the frequency with which Yahoo! users perform web searches for it. Yahoo! hopes to use the answers to predict search trends that will be popular in future, so that it can sell advertising against them. O'Reilly wants an inside track on hot topics for future books and conferences. In the spring, the market identified "Ruby on Rails", a programming environment, and Flickr, a photo-sharing site, as hot picks. But the game has not yet been around long enough to assess its track record for longer-term prediction, says David Pennock, a senior researcher at Yahoo!

The most important thing about the Tech Buzz Game, says Mr Wolfers, may be that people are actually playing it, because it is so well designed. Encouraging employees to use prediction markets has always been a challenge. Mr Proebsting says he believes it is just a matter of time before Microsoft starts using predictive markets to predict external as well as internal events. Perhaps he could use the technology to estimate when. ■

Fingerprints for car parts

Security: People have fingerprints, but objects do not—unless you spray them on in the form of thousands of tiny microdots, that is

WHILE "smart dust" remains a technological fantasy, a distant cousin is already being used to protect valuable items around the world. The "microdots" produced by DataDot Technology, an Australian firm, are tiny polyester particles, just one millimetre wide, that can be sprayed on to valuable items such as car parts. Under ultraviolet light and a magnifying glass, any one of these thousands of dots can reveal the host vehicle's unique identity number. Of course, a car thief could try to scrape off the microdots, but their sheer number makes that impractical; a single dot is enough to identify a stolen component. Warning stickers enhance the dots' deterrent effect.

And it seems to be working: according to a study published by Australia's National Motor Vehicle Theft Reduction