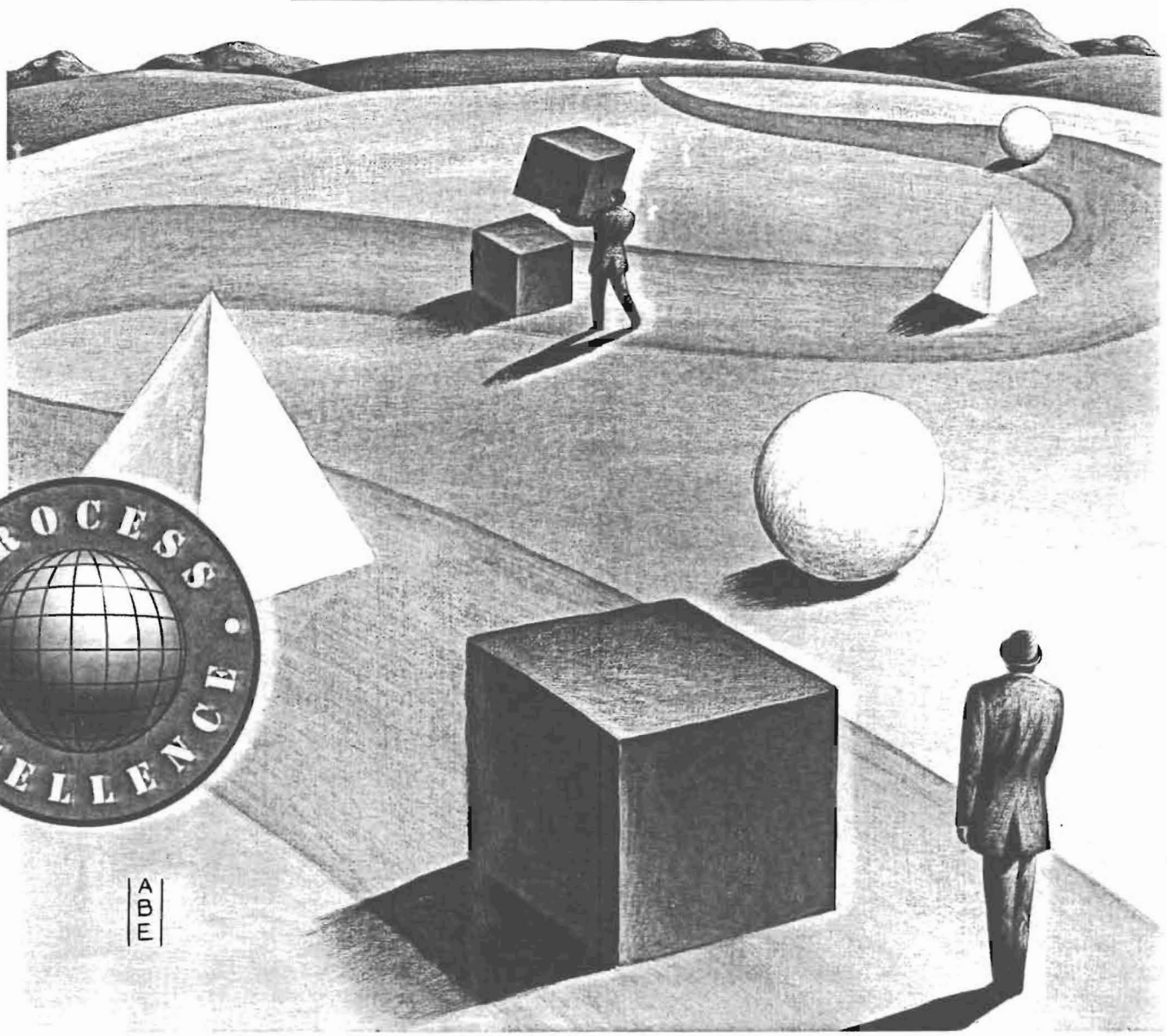
The Economist Intelligence Unit

Building process excellence

Lessons from the leaders



Written in co-operation with Andersen Consulting

Case Study

Owens Corning

Every company that tries to re-invent itself does so in its own way. Although revising the business architecture means dealing with all aspects of the company, one or two areas typically receive special emphasis. For Owens Corning, that area is technology, in particular the information technology that binds the diverse corporation together.

Owens Corning focuses re-engineering on technology

In 1992, when Glen Hiner became CEO of Owens Corning Fiberglas, the company was still reeling from both the huge debts left over from a take-over bid by Wicke's Lumber and asbestos-related lawsuits. The company was in a fight-for-survival mode, and morale was depressed by a campaign to cut costs and lighten the debt burden.

It did not take long for Mr Hiner, formerly of General Electric, to start transforming that inward-looking mind-set into a more positive, externally focused, growth-oriented approach. The company still possessed several core strengths, notably brand leadership positions in several of its most important markets—even though R&D had not come up with any potent new products in a long while.

Mr Hiner set an ambitious revenue goal from the start: a doubling of annual sales from $2.8bn to $5bn by 2000, simultaneously boosting the foreign share from 24% to 40%. In addition, the new CEO sought to boost cash flow and earnings per share by twice revenue growth. Among the changes that could lead to these results were greater internal efficiencies, stronger customer and supplier relationships, higher performance standards, a more global outlook and the development of breakthrough products. Overall, Mr Hiner looked for annual productivity gains of 6%.

For a multinational company operating in more than 30 countries, reaching these goals called for heavy-duty cross-cultural restructuring and a thorough attitudinal change. To set the stage, management mapped out just what it wanted Owens Corning to be as a company: a global leader in its core product arenas. In attaining this leadership, it wanted to perform, both externally and internally, at a level that would bring increasing satisfaction and rewards to all its vital stakeholders—owners, employees, customers and partners (eg suppliers, vendors).

Organising for the customer

Management began re-aligning the company by tackling its structure and content. It expanded the number of business units from two to eleven—four based outside the USA—and reorganised them along customer rather than product lines. From that point on, the market, not the product, determined the organisation's structure. The European building materials group, for example, now employs two channels—retail and contractor—to reach customers for all of its products across the continent. In contrast, its US counterpart adds a third channel—distributors—because the market is structurally different. Several businesses were sold because they either lacked handsome growth prospects or were not contenders for the top spot in their markets (a standard made famous by Jack Welch, CEO of General Electric).

An entire layer of senior management was eliminated. Flattening the structure has provided business-unit leaders with greater autonomy in implementing broad corporate strategies in the specific ways appropriate to their markets.

Next came a technological makeover. Although corporate redesign involves five inte-

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grated building blocks—business processes, corporate structure, management practices, people and technology—one is usually chosen to bear more of the load than the others. The key to Owens Corning's redesign, called Advantage 2000, is technology—in this case, information technology (IT).

Advantage 2000

The company defines Advantage 2000 as an initiative intended to make the business units more global in outlook, similar in structure and operation, and simpler to deal with, both internally and externally. Global, common, simple—this is the reiterated theme at Owens Corning.

What knits the units together is a new IT set-up employing a common client/server system. It is based on SAP, a German software application that covers the entire range of accounting tasks, supports logistical activities from materials management to sales, and works with commonly used business applications like Microsoft Word and various relational databases. Nearly all of Owens Corning's existing 200-plus IT systems will be junked. Where necessary—and there will not be many such cases—"bolt-on" software will be employed to fill functionality gaps left by SAP.

The focus on IT resulted from management's realisation that tomorrow's multinational company must use its global strengths, not just those resident in the home country. No one cultural or national group is the fount of all wisdom. What's more, Owens Corning's non-North American entities will play so large a role in the firm's potential growth that they must be able to buy into the vision of the future. Merely changing the organisational structure and providing senior managers with more autonomy will not achieve much if those who do the day-to-day work lack a common language and the access to the information necessary for improved performance.

"We reorganised at the top, but the business processes and the information technology were still organised around the old company," explains Mike Radcliff, chief information officer and a member of the ten-person Advantage 2000 steering team. "They were frankly getting in the way of our operating globally and leveraging the power of the enterprise. And they were getting in the way of our achieving the productivity gains required to implement our business goals. The productivity focus around here is very fundamental. The focus is on simplification, globalisation and creating common processes in technology."

Allowances will be made for the unique attributes of customers, products or technologies. "But this is mostly to do with customer interface," says Mr Radcliff. "Inside the business, there is really no reason for us to support differences in the way we perform core business processes."

Global and common information technology

The overarching intent is to mesh the new IT system and the business processes—be they manufacturing, marketing or logistics—to create a powerful new tool capable of providing instant real-time information across the company. With this information, employees will be empowered to make more decisions, thus becoming more responsive to customers, and to optimise operations.

To break from tradition, cross-functional teams worked with business-unit heads—and outside consultants—to design the implementation of the technology makeover around specific and quantifiable business outcomes. They asked questions such as these: Can this trim costs by 17%? Can we reduce cycle time by 25%? Reduce finance and information technology operating expenses by 1%?

To define sufficiently stringent targets, the Advantage 2000 teams benchmarked against companies widely considered to be world class, both within and outside their own industries. The results of that exercise caused management to raise many of the initial targets. Those findings also reinforced the desire to create an IT architecture that would be

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flexible and open-ended enough so as to respond every time the competitive bar is raised to new heights. "It will give us very dramatic competitive flexibility that will enable us to continuously reorganise around our customers, or organise to implement any business strategy," says Mr Radcliff.

Tell the troops

To win the hearts and minds of the foot soldiers who must fight the daily competitive battles, managers from far-flung outposts were brought to headquarters to participate in the transitional decision-making. Their support was essential, as they were the ones charged with the implementation and success of the programme (see box, next page).

To further spread the word, management inaugurated a comprehensive communications programme employing videos, brochures and the like. These were designed to answer questions from the company's 17,000 employees around the world and concerned outsiders such as suppliers and the media. On the more practical side, training along process lines occurs within 30 days of the switch from the old to new technology architecture at each business unit. Thus purchasing personnel within, say, the roofing business train together at a centralised location using real information related to their specific business.

"At the end of the day, training is the biggest challenge we have," says Mr Radcliff. "You really have to unlearn a lot of what you've been doing and give it up completely, then learn the new." Owens Corning is taking the "cold turkey" approach towards moving the business units from the old IT system to the new one. Once implemented in a specific unit, the new system takes effect immediately, and the old systems are shut down. Thus, there will be no simultaneous processing or other retention of the old system until people are comfortable with its replacement. However, the system is being introduced unit by unit over two years and is expected to be completed by early 1997.

Top management must be unflinching in its resolve to support the change. "You need very good air cover from senior management for an initiative like this," says Mr Radcliff. "Otherwise, any mistake becomes an opportunity to derail the initiative. You need to have a 'take-no-prisoners' attitude when you implement such transformational business change to be successful." Those who make the new approach work must be rewarded publicly, and those who frustrate it must know they have erred. To encourage pro-action and even risk-taking, management stresses that mistakes are to be learned from and perfection is unattainable.

Releases

Given the importance of executive and employee support, there is little wonder that so much time and effort are being devoted to the human-relations aspects of the technology-driven transition. All told, 200 process experts from business units around the world are committed full time to Advantage 2000 at any one time, though individual stints range from six months to two years. These people are charged with spreading the word, rolling out the new order, upgrading their own skills and readjusting goals as the new system takes root. It is made clear that membership on an Advantage 2000 team enhances one's long-term value to the corporation by broadening competency.

Advantage 2000 is being rolled out in four "releases". The first release, which occurred in the fourth quarter of 1995, was a pilot programme involving corporate finance. (This department was chosen so that the general ledger functions would be on the new system for year-end reporting.) The point of a pilot scheme is "to confirm our entire methodology", says Mr Radcliff, "and to learn all of the changes and the consequences you are likely to see as it goes through the whole business. It also is to create some early wins and momentum."

The second release—another pilot programme, but on a larger scale—was rolled out in the first quarter of 1996 and involved such basic business activities as purchasing and

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order entry. The following groups were involved: Building Materials–Europe; Fabrication Division, Science & Technology in Granville, Ohio; North American Shared Services (ie centralised accounts payable, payroll, and travel and entertainment processing); and engineering staff at the Anderson, South Carolina plant. These groups were chosen because they are small enough to fully test the methodology but sufficiently large to produce measurable benefits over a relatively short time span.

The transition from the old to the new is proving a bit bumpy, say company executives, but the systems and processes are operating as designed and people are briskly climbing the learning curve. This experience is preparing the ground for release three, to be rolled out in the second and third quarters of 1996, which will involve equipping all facilities with new networks, hardware and software. This release will, in turn, ensure that employees are comfortable with the new tools and capable of using them when the fourth release is rolled out.

The global approach

Given the worldwide dimensions of Owens Corning—and its aspirations to become even more global—the re-architecting programme had to involve representatives from the overseas operations. These people, after all, would have to implement the new systems and make them work in societies governed by their own unique cultures, regulatory environments, technology levels, currencies, customer needs and the like. So they had to understand why the initiative was necessary and buy into it.

This meant that key representatives of foreign operations had to be involved in the decision-making from the early stages. These representatives were appointed to the ten Advantage 2000 teams and summoned to Toledo to participate in the architecting process. Cultural differences showed up right away, requiring a certain degree of tolerance on all sides. Europeans, for example, have little patience for the "political correctness" that appears to have robbed Americans of some of their former dynamism and individualism. Indeed, US team members were stunned at the bluntness of the Europeans, finding them confrontational and at times even negative.

The European managers also had to deal with being away from their specific job responsibilities for long periods—sometimes for two or three weeks out of every month. "You had to get very good at prioritising and develop very good e-mail, teleconferencing and videoconferencing skills," observes Lynda Mallinson, a Briton who represented the European building-products operation. "You had to be able to identify the key problems that impact people who may not be there during that week and tie them in early."

A promising start

The effort proved worthwhile. Managers who had to deal with each other face-to-face for weeks at a time got to know and trust each other much faster than they otherwise might have. "People who haven't met each other co-operate less effectively," observes Ms Mallinson. Even more important, being part of the process created a sense of ownership among the non-domestic managers. These managers would need to have enough faith in and knowledge of the programme to deal with inevitable questions and doubts from fellow workers at home, especially when things do not go smoothly.

"One of the things I've already found is that a sure-fire key to success is consistency of commitment," says IT consultant Jeff Glosser. "Management at Building Materials–Europe has never blinked, whatever the adversity. It's never been an option. We are going to do it. The consistency of commitment mitigates the uncertainty of change." Owens Corning is counting on this attitude, that is, that people will fight through the tough times if they believe in their leaders and in the ultimate rightness of the cause.

While it is early yet for the company to think truly globally, the "operate-locally" methodology appears to be working. The second-stage pilot programme that came on-line successfully in January 1996 involved a number of European operations. Says Mr Radcliff: "Our most aggressive and quickest implementation is happening in Europe."

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Cost factor

This last release, beginning in the final quarter of 1996 and lasting through the second quarter of 1997, will involve the full-scale implementation of Advantage 2000 in all the business units around the world. As this final release will incorporate lessons learned from the first three releases, as well as an upgrade to the SAP software, most business-process design will occur at this stage rather than the pilots.

By the end of the two-year roll-out, Owens Corning will have spent $62m on Advantage 2000, a figure that includes IT hardware, software and the cost of the process teams. That is $38m less than what the estimated maintenance cost of legacy systems would have been over the same period. By 1997, the programme is expected to generate $43m in annual savings, including a 25% cost reduction in raw materials and a move towards a paper-free internal environment. These savings alone should add a full 1% per year to Owens Corning's productivity.

The pursuit of process excellence entails a delicate balancing of multiple approaches, which varies from company to company. For Owens Corning, the balance has been tilted towards technology. Observes Mr Radcliff: "In today's world, all new processes are enabled by some technology."

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