

Environmental Performance and Business Strategy

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Across North America and Europe, companies in a variety of businesses are beginning to use environmental performance to achieve competitive advantage, integrating the management of environmental, health, and safety issues into their operations, business processes, and corporate strategies. In this article, we outline current trends toward linking environmental performance with business strategy, suggest guidelines for identifying strategic environmental issues, and set out options for effective action.

From Awareness to Action

The competitive implications of environmental performance first became apparent in industries where environmental issues had early public visibility, including the chemical, automotive, and petroleum industries. Companies such as 3M, Dow, Texaco, Honda, Bayer, and ICI have found that reducing hazardous wastes not only helps satisfy public demands, but can also improve financial performance by reducing disposal and other costs. For companies in the process industries, for example, these improved efficiencies support internal business needs created by restructuring and downsizing; they also help the companies respond to government reporting requirements and voluntary programs, public demands for disclosure and accountability, and competitive pressures for environmental, health, and safety leadership.

In other industries – such as pharmaceuticals, consumer products, and electronics – the competitive aspects of environmental performance have begun to surface more recently as an important area for senior management attention. Richard Gelb, chairman of the board and CEO of Bristol-Myers Squibb, recently told his company's environmental conference: „We want everyone in this company to comprehend fully the competitive implications of environmental initiatives. We want our purchasing agents, our distribution managers, our transportation specialists, and our marketing people to recognize benefits and cost savings from doing business the environmental way. We want our business people to appreciate the environmental dimensions of business decisions, strategic planning, and the entire product life cycle.“

Heightened awareness is increasingly triggering action at the level of business strategy. We already see signs of this in the marketplace. Some of these „market signals“ are intentional, some are not, but all will be noted by competitors. By Michael Porter's definition, market signals include „any action by a competitor that provides a direct or indirect indication of its intentions, motives, goals, or internal situation... Most if not all of a competitor's behavior can carry information that can aid in competitor analysis and strategy formulation.“¹

Some environmental market signals are direct messages to key stakeholders. For example, a company might assure its shareholders that it has solid control of its environmental issues and responsibilities by focusing its annual report on environmental programs and progress. Alternatively, it might introduce a new product that is completely recyclable (and which it offers to take back after the product's useful life is over).

More indirect signals might include a switch from an environmentally negligent supplier to one that ensures less potential liability; public speeches by the CEO about what it takes to be an environmental leader; or the announcement of a capital investment in a new solvent-free manufacturing process. A potentially detrimental indirect signal might come from a conflict between what a company says it is accomplishing and a negative public perception created by public activist reporting.

A Mandate for Change

Within the next few years, environmental performance, like financial results, will become a critical factor in evaluating both publicly and privately held companies. Companies will be forced to think strategically about environmental performance as a key dimension of corporate performance, profitability, and growth. At present, companies are being pressured to measure and cost out the impact on the environment of their operations and products and to introduce changes to counteract any negative effects. The pressure will only increase as employees, neighbors, shareholders, environmental groups, regulatory agencies, and the public demand that companies measure, document, and disclose environmental information. The government watchword in North America, Europe, and Asia for the coming years will be „pollution prevention“ – creating an imperative for companies to reduce and eliminate pollution across their operations and to enhance their environmental performance.

Although many companies cannot yet see the rationale for spending money on the environment beyond what is required, they do see some of their peers beginning to focus on the environment as a competitive issue. For industrial products, the focus is generally cost- and performance-driven. For consumer products, consumer perceptions – right or wrong – and convenience, in addition to price and company performance, are likely to drive an environmental focus.

While the mandate for change is clear, the timing of change remains a critical issue. Companies need to decide whether to risk being trend-setters or to pursue a more cautious approach, observing what does or does not work for other companies. The right decision for any company needs to reflect not only corporate culture and objectives, but also an awareness of the needs of employees, customers, the board of directors, and shareholders, as well as those of local communities, the public, and, in some instances, regulators. The right decision will also reflect the dynamics of particular industries and markets, as well as the increasingly global nature of environmental management. Perhaps most important, a company must identify the specific environmental issues that will affect its operations, assess their maturity, and design a response.

Identifying Strategic Environmental Issues

A strategic environmental issue is a condition or trend that could significantly affect a company's business operations. Traditionally, these issues have derived largely from specific laws, such as pollution-control standards that require a company to install a new bag-house in a plant, or the recent Topfer law in Germany requiring companies to take back their packaging from the consumer. As they have evolved, strategic environmental issues have come to affect all processes and operations throughout the product life cycle – raw materials, R&D, product design, manufacturing and distribution, consumer use, and recycling and reuse.²

Companies face the difficult task of identifying which environmental issues are enduring and have long-term strategic implications, and which are only shorter-term „fads.“ Success in spotting critical issues will determine how a company focuses its resources, influences environmental trends in ways that benefit it, and anticipates and plans for change so that it is not reacting to a competitor's timetable. To help distinguish fads from issues that will have competitive impact, we have developed seven criteria that tend to correlate with the durability of an environmental issue. They are listed in Exhibit 1 and discussed below.

A critical mass of support willing to act. Opposition to the nuclear industry and to the fur coat industry are well-known examples of cases in which groups of people are willing to act – to protest in front of a nuclear plant or to insult a person wearing a fur coat on the street. Whether these groups are large or small, if their actions are strong and coordinated they can affect buying patterns, force industrial change, or drive new legislation. Even less-outspoken behavior can send a clear message to industry. In Europe, for example, grocery store customers began to leave behind packaging from items they purchased – sending a message to the retailer and the manufacturer well before the German packaging law was enacted.

A body of knowledge. Often, scientists and academics are interested in an issue long before it becomes a public or regulatory concern. They begin to collect data that eventually become difficult to ignore, igniting a process of change that feeds into the regulatory process. Chlorofluorocarbons (CFCs) and landfill capacity are two issues around which a body of knowledge was developing before many companies became convinced of – or even recognized – their potential market impact. This knowledge became the cornerstone of regulation, public sentiment, and – eventually – market position.

Exhibit 1

Criteria for Gauging the Importance of Environmental Issues

<i>Support</i>	Is there a critical mass of support formed or forming?
<i>Knowledge</i>	How much knowledge exists about this issue?
<i>Communication</i>	Is the knowledge being communicated?
<i>Results</i>	Is the issue expected to yield significant change?
<i>Targets</i>	Are there recognizable targets? Are they a focus for anger?
<i>Trigger Events</i>	Has there been a well-publicized trigger event?
<i>Leadership</i>	Who is leading the issue: citizen groups, politicians? What is their commitment and influence on the issue?

Communication mechanisms. An individual or group concerned about a particular environmental or health issue can elevate its importance through the media – even before all the data are in. Global warming is a case in point. In another example, Greenpeace activists filmed dolphins caught in tuna nets and were able to publicize

quickly and broadly the issue of drift-net fishing. The effect on the fishing industry was substantial. In order to reduce the effects of negative publicity, some tuna packers printed a small symbol on their cans to show that they were buying tuna only from suppliers that were careful to protect dolphins.

Expected results from significant change. As individuals, companies, and governments strive to protect or improve the environment, not surprisingly they often look for ways to make an impact that is measurable or visible. For example, many people recycle their cans and bottles because recycling visibly and tangibly reduces the amount of trash going to the landfill. Regulators and legislators have focused on automobile emissions because of their impact on urban air pollution, particularly in densely populated areas such as the Los Angeles basin.

Recognizable targets. Certain products perceived – correctly or not – as problematic can become targets of consumers and regulators. Aseptic juice boxes, banned in the state of Maine, and disposable diapers, targeted in other locations, have been identified as examples of unnecessary solid waste. Whether or not the charges are correct can be irrelevant. A company examining its overall environmental impact must assess the broader concerns about this impact, as well as the product's vulnerability as a potential target. If that vulnerability is high, the company must fully understand all aspects of the issue and decide whether to work to turn the issue around, neutralize it, or take some advantage from it. Every issue in its early stage presents both a potential threat and an opportunity; how it plays out depends on how the company reacts.

Trigger events. Rachel Carson's *Silent Spring*, the Seveso accident, the homeless New York garbage barge in 1987, Love Canal, the Bhopal tragedy, the continuing phenomenon of medical waste washing up on beaches – all have triggered significant waves of concern, pressure, and regulatory action. Predicting which issues and trends are potential „triggers“ is important for making strategic choices that minimize vulnerability or help to position a company for the future.

Leadership. Lois Gibbs, the Love Canal crusader, became a key figure in the dialogue that ultimately led to the U.S. Superfund program. Northwest Airlines' „no smoking“ policy on all U.S. domestic flights set an example that all other airlines were soon required to follow. Whether by an individual or an organization, leadership on an issue can elevate its importance.

An issue that is on the way to becoming significant and enduring may not meet all seven of these criteria, but it will likely meet several of them – or one or two of them intensively. For example, strong leadership on an issue can propel it forward, and the other criteria will likely follow.

Evaluating the Maturity of Environmental Issues

Once issues have been identified, it is useful to evaluate the degree to which they have evolved and how and in what time frame they are likely to continue to develop. As issues mature, options for strategically controlling opportunities and vulnerabilities begin to narrow. We classify environmental issues as latent, emerging, mature, or institutionalized.

Latent. This stage of an issue is typically characterized by emerging public awareness coupled with sufficient technical information to give credence to a suspected problem. For instance, some evidence suggests that water – both its scarcity and its deteriorating quality – may constitute the next global environmental crisis.

Emerging. In this stage, technical information becomes difficult to refute, public concerns mount, and legislative or regulatory initiatives begin. Recycling is currently an emerging issue. Existing technical information supports the need for recycling and presents possible solutions in the form of technologies and comparative materials analysis. Public concern is particularly strong in some countries, such as Germany, and is growing in others, such as the United States. Regulations are being enacted to manage problems at the national, regional, and local levels.

Mature. In this stage, legislation is enacted and compliance requirements are developed. The CFC issue, which has evolved over the last 20 years, is now mature. Government requirements are in place, as are phaseout plans developed by individual companies, consortia, and industry associations. However, there is still extensive research in progress, not only on the effects of CFCs – and possible damage to the environment – but also on substitute technologies. Another example of a mature issue is packaging-recycling in Germany, which we present below as a case study.

Institutionalized. In this stage, managing the issue is an established part of doing business. Despite the fact that regulations are still being enacted to further reduce the impact of automotive fuel emissions on the environment, a strong case can be made that this is now an institutionalized issue – certainly for autos sold in the United States. Auto emissions management has come a long way since 1975, when manufacturers began to install catalytic converters in cars. In fact, we may have reached a level of diminishing returns with respect to how much more can be accomplished by regulating automobile emissions. Some critics suggest that laws now being enacted for 1995 may be targeting a non-issue, especially since most pre-1975 automobiles will be off the

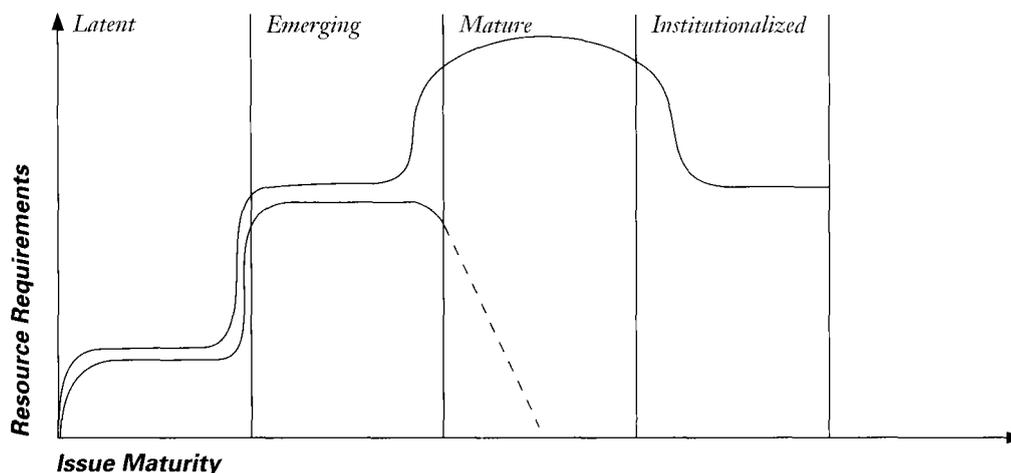
road by then. It can also be argued that hazardous waste management is now institutionalized, at least in the United States. Superfund and the Resource Conservation and Recovery Act may change, but changes will be modest compared with the resources that went into their initial development.

The evolution of an environmental issue – in fact, any public issue – can be mapped conceptually (Exhibit 2). There is a time in the middle of each stage when the issue becomes relatively stable (reflected in the exhibit by an almost horizontal slope). But a large change, unrest, or action (represented by steep curves in the exhibit), typically moves the issue into the next stage. Opportunity lies in confronting potentially important issues by investing the resources to influence and turn them to advantage. A company may even „raise the curve“ so that its competition has to pay more later in order to catch up. But the more mature an issue becomes, the less control and influence a company can have over it.

Not every issue passes through each stage of development. Sometimes an issue falls off the chart altogether (the dotted line in Exhibit 2). In the 1970s, for example, for a variety of economic and political reasons, the development of synthetic substitutes for petroleum („synfuels“) never ran the full course. Whether the issue is real or perceived comes into play here, as does timing. It is not implausible, for example, that synfuels will gain public attention again in the years ahead, as the potential scarcity of natural resources becomes an issue. The following case study illustrates the evolution of one issue.

Exhibit 2

The Evolution of an Environmental Issue



Case Study: Germany's Green Dot Program

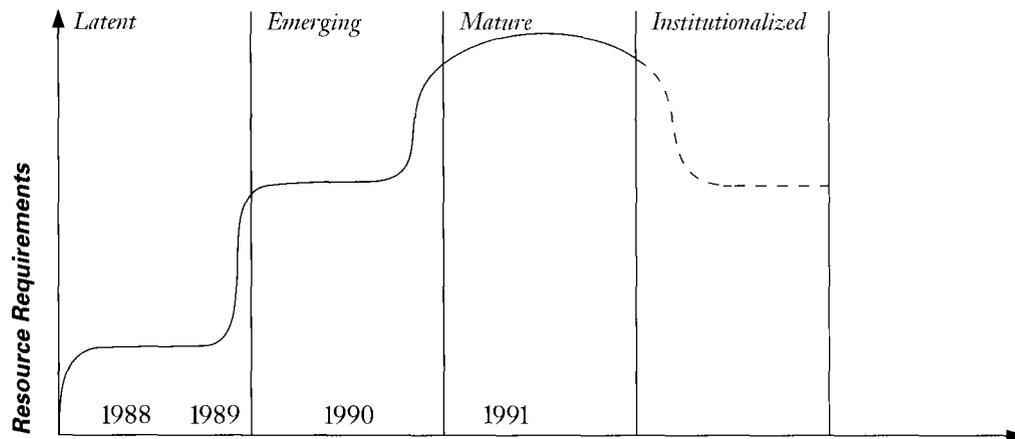
In 1991, Germany passed the Topfer law, which requires businesses to take back and recycle all consumer product packaging. In response, the packaging industry developed the Dual Waste Collection and Recovery System, so called because packaging collection and recycling is handled outside the regular municipal solid waste stream. A „green dot“ symbol on a package indicates participation in the dual system. The packaging-recycling issue has evolved very rapidly from the latent to the mature stage over the past five years. (The CFC issue, in comparison, took more than 20 years to evolve to the same stage.)

The term „garbage emergency“ came into use in 1989 in Germany as landfills reached capacity and began to close. When East and West Germany united, the situation intensified because the West had been sending much of its waste to the East. Would that continue? A „not in my backyard“ conflict developed over where to create new landfills, increasing the projected time required to permit, locate, and build a new landfill to ten years – about the same amount of time required to complete the process in the United States. During this period, scientists began testing the technical feasibility of plastics recycling. In 1989, technology was introduced for separating post-consumer plastics.

As Exhibit 3 shows, the pace quickened in the late 1980s and 1990s with growing research and mounting knowledge. The Society for Packaging and the Environment outlined a plan for a Dual Waste Collection and Recovery System. Then packaging began to attract media and political attention because it composed 50 percent of the volume and 30 percent of the weight of landfills in Germany. In 1990 the East German recycling infrastructure – which had been very effective – collapsed, intensifying the problem and attracting more media attention.

Exhibit 3

Evolution of Germany's Green Dot Program



Pilot program to test feasibility of plastics recycling – 1988	Society for Plastics and the Environment outlines plan for „dual waste system“ – 1989	Packaging ordinance adopted, requiring industry to reclaim/recycle packaging waste – 1991
„Garbage emergency“ as landfills reach capacity – 1989	Packaging targeted as high volume/weight in Germany's municipal solid waste – 1990	Dual „Green Dot“ system established by packaging industry – 1991
Complex permitting and siting requirements slow landfill openings – 1989	East German recycling infrastructure collapses – 1990	
Technology ⁷ introduced for separating post-consumer plastics – 1989		

In 1991, Germany adopted the Topfer law, which required the packaging industry to take back and recycle all packaging waste. Then, in response to government regulation, industry established the „dual system.“ Despite rapid progress, this issue is not yet institutionalized. Collection is running efficiently, but recycling is problematic. Markets have yet to be found for all the materials, technology gaps persist, and there are poor economics in some cases. Nonetheless, France and Austria are drafting legislation to institute programs along similar lines, and the German program is being watched carefully in the United States, Japan, and other European countries.

Determining Potential Business Impact

Once management has identified environmental issues that may influence the company's business and has assessed their maturity, it should evaluate their potential strategic importance. Criteria for making this assessment might include the dollar impact on the business; the number of key stakeholders affected (customers, employees, owners, local communities); and the scope of impact on the business (how many products or operations are affected). Weighting the criteria and then ranking the issues accordingly will help determine the relative importance of each issue to overall business strategy.

Clearly, high-impact issues demand more urgent attention than lower-impact issues, though the latter should be suitably monitored. By considering high-impact issues in terms of their relative maturity companies can begin to

see the strategic choices they face.

Typically, companies tend to focus on issues that are both high-impact and institutionalized – there’s a lot of activity around the issue, perhaps a crisis; regulations are developing; and media attention is increasing. High-impact latent issues, however, often provide opportunities for the greatest strategic advantage. For example, some companies, recognizing the coming pressures and opportunities of an emerging issue, began investigating substitutes for CFCs in the early to mid-1980s.

Options for Strategic Environmental Action

In developing a strategic response to environmental issues, a company needs to understand who its stakeholders are and what they expect. We believe that the key to successful overall corporate performance is stakeholder satisfaction – that is, setting a strategy that explicitly balances the needs of all stakeholders. Increasingly, we find, a company’s success in managing environmental affairs contributes to overall stakeholder satisfaction.

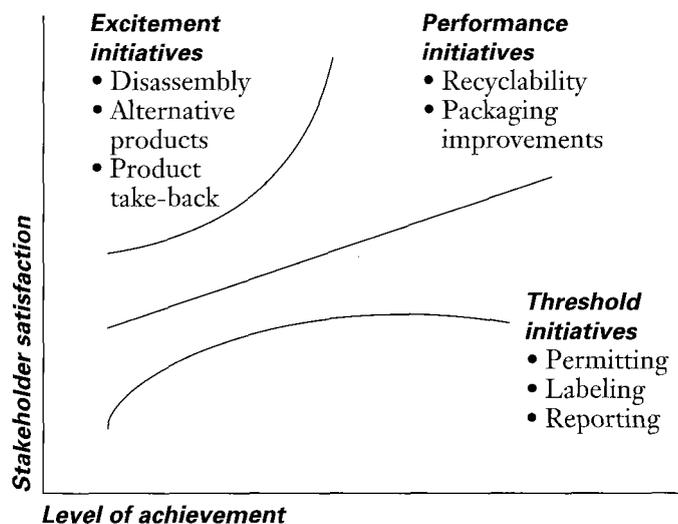
Recognizing this, companies have begun to initiate environmentally based programs, such as companywide recycling systems, new packaging materials, redesigned manufacturing systems, material substitutions, improved labeling information, and the establishment of community advisory groups. Each of these initiatives is rooted in a particular environmental issue or issues and in a company’s understanding of the relative importance of these issues to its stakeholders. Companies must consider the environmental implications of all parts of their operations, processes, and products. It is useful to think of these implications in terms of three kinds of company initiatives: threshold, performance, and excitement (Exhibit 4).

A company has to do certain things right just to stay in business. In terms of stakeholder satisfaction, we consider these things *threshold* initiatives. While they vary by industry and market, an increasing number are now environmentally based. Examples include meeting certain requirements for permitting, product labeling, and reporting environmental information, as well as reporting information not required but provided by competitors. As time progresses, once-optional environmental initiatives will become threshold. In Germany, for example, as a result of the requirements, recyclable packaging is quickly becoming necessary to stay in business.

Certain environmental initiatives exceed threshold requirements and are classified as *performance* initiatives. The more of these a company undertakes, the happier its stakeholders will be. Waste reduction is one example. Product packaging is an area of waste reduction in which companies are continuously improving performance. A single change may be dramatic at first, with clear benefits to the customer. As the innovative company continues to implement packaging innovations that reduce waste for the customer – less bulky packaging, recyclable materials, mechanisms for returning packaging – it contributes to customer satisfaction and competitive edge. As other competitors begin to implement the same packaging improvements, these improvements evolve from performance initiatives into threshold requirements.

Exhibit 4

Strategic Implications of Environmental Initiatives



For example, Procter & Gamble developed refillable pouches for fabric softener in Germany in response to public concern over municipal solid waste. When first introduced, this innovative product met consumer needs to

reduce product packaging, both contributing to a solution for the municipal solid waste problem and providing a less bulky product for consumers to carry and store. Other manufacturers followed suit, and P&G's refill package is now an industry standard throughout Europe. To provide customers with added benefits, P&G has continued to introduce innovative solutions to packaging problems – combining detergent with bleach or fabric softener, introducing completely recycled plastic containers, and using recyclable packaging. Consequently, the company is recognized as environmentally conscious, an increasingly important attribute in the consumer products industry.

If a company provides stakeholders – its customers, for example – with something unexpected, the resulting level of satisfaction can be quite high. We call initiatives with this result *excitement* initiatives. For example, soy-based printing inks were developed to provide an environmentally sound alternative to inks formulated with heavy metals. Further „excitement“ was added by the fact that, in some applications, the inks provide more vibrant color than traditional printing inks. Another example of an excitement activity: Black & Decker of Canada will take back a product when its useful life is over, thereby assuming responsibility for recycling the product (and the battery). The customer does not expect this service, but finds it an added benefit. (In Germany, this service will soon be required by law for all electronics equipment, thus becoming a threshold activity.)

An earlier example: When Union Camp Corporation, a Fortune 200 forest products company, announced a major land conservation project in the 1970s, its top management was not sure how shareholders would respond to this gift of corporate assets, despite major tax benefits. The response was overwhelmingly positive: the CEO was deluged with letters from shareholders, employees, and community leaders. A very different excitement example may be evolving as companies, such as Polaroid and Norsk Hydro, begin to report publicly their progress toward meeting environmental performance goals. They are not yet required to do this, nor do their shareholders or communities expect it. But this progressive approach to reporting clearly sends a message to stakeholders that their company is a leader in environmental management. We expect this approach to begin to excite stakeholders by making them proud and confident about their companies' stance.

As companies recognize the competitive implications of environmental activities, they will find that they can achieve strategic advantage by introducing performance and excitement initiatives. Once a company conceives and implements such innovations quickly and broadly stakeholders come to expect them and demand the same from other companies. Ultimately, they become threshold activities that competitors may not yet be prepared to provide at reasonable cost. Like high performance in terms of quality speed, and price, environmental initiatives will help companies attain competitive advantage.

Some executives may still doubt the staying power of environmental business pressures. Their doubts will soon become competitive fears as they realize that other companies are turning environmental pressures into opportunities.

Business and environmental issues are quickly becoming so entwined as to be inseparable. They are best managed together, in the interests of the company and its stakeholders. In the words of Patrick Noonan, chairman and CEO of The Conservation Fund and a member of President Bush's Council on Environmental Quality: „There is a 'green' train coming down the corporate track. Some businesses will waste valuable resources, both human and financial, trying to derail this fast-moving force. A few will recognize its importance and growing influence and use it as a vehicle to reach new markets. The train is environmental quality, and I maintain that corporations who climb on board will be the ones that have the best ride in the 1990s.“³

¹ Competitive Strategy: Techniques for Analyzing Industries and Competitors, *Michael E. Potter, The Free Press (New York, 1980).*

² For a full discussion of life cycle assessment, please see „Identifying Strategic Environmental Opportunities: A Life Cycle Approach,“ in *Prism*, third quarter 1991.

³ „The 'Green' Director,“ by Patrick F. Noonan, appeared in. *The Corporate Board*, January/February 1992.

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