### What Would You Do? Case Assignment

#### DUPONTWilmington, Delaware

The DuPontcompany got its start when Eleuthère Irénée du Pont de Nemours fled France’s revolution to come to America, where, in 1802, he built a mill on the Brandywine River in Wilmington, Delaware, to produce blasting powder used in guns and artillery. In 1902, E.I. du Pont’s great-grandson, Pierre S. du Pont, along with two cousins, bought out other family members and began transforming DuPont into the world’s leading chemical company. In its second century, DuPont Corporation would go on to develop Freon for refrigerators and air conditioners; nylon, which is used in everything from women’s hose to car tires; Lucite, a ubiquitous clear plastic used in baths, furniture, car lights, and phone screens; Teflon, famous for its nonstick properties in cookware and coatings; Dacron, a wash-and-wear, wrinkle-free polyester; Lycra, the stretchy, clingy fabric used in activewear and swimwear; Nome, a fire-resistant fiber used by firefighters, race car drivers, and to reduce heat in motors and electrical equipment; Corona, a high-end countertop used in homes and offices; and Kevlar, the “bulletproof” material used in body armor worn by police and soldiers, in helmets, and for vehicle protection.

 You became DuPont’s CEO right as “the world fell apart” at the height of the world financial crisis. Fortunately, you had early warning from sharply declining sales in DuPont’s titanium dioxide division, which makes white pigment used in paints, sunscreen, and food coloring. Sales trends there can be counted on to indicate what will happen next in the general economy, so you and your leadership team began working with the heads of all of DuPont’s divisions to make contingency plans in case sales dropped by 5 percent, 10 percent, 20 percent, or more. Many DuPont managers thought you were crazy, until the downturn hit. It was difficult, but with plans to cut 6,500 employees at the ready, you were prepared when sales dropped by 20 percent at the end of the year. But when that wasn’t enough, salaried and professional employees were asked to voluntarily take unpaid time off and an additional 2,000 jobs were eliminated. In all, these moves reduced expenses by a billion dollars a year. But one place you refused to cut was DuPont’s research budget, which remained at $1.4 billion per year.

 One of the ways in which the Board of Directors measures company performance is by comparing DuPont’s total stock returns to 19 peer companies. Over the last quarter century, DuPont has regularly ended up in the bottom third of the list. This makes clear that you have one overriding goal: to restore DuPont’s prestige, performance, and competitiveness. The question, of course, is how? Before deciding, there are some big questions to consider. First, given sustained weak performance over the last quarter century, do you need to step back and consider DuPont’s purpose, that is, the reason that you’re in business? After transitioning from blasting powder to chemicals, DuPont’s slogan became, “Better things for better living … through chemistry.” Is it time, again, to reconsider what DuPont is all about? Or, instead of an intense focus on DuPont’s purpose, would it make more sense to make lots of plans and lots of bets so that “a thousand flowers can bloom?” In other words, would it be better to keep options open by making small, simultaneous investments in many alternative plans? Then, when one or a few of these plans emerge as likely winners, you invest even more in these plans while discontinuing or reducing investment in the others. Finally, planning is a double-edged sword. If done right, it brings about tremendous increases in individual and organizational performance. But if done wrong, it can have just the opposite effect and harm individual and organizational performance. With that in mind, what kind of goals should you set for the company? Should you focus on finances, product development, or people? And should you have an overriding goal, or should you have separate goals for different parts of the company?

**If you were the CEO at DuPont, what would you do?**

Sources: C. Loomis & D. Burke, “Can Ellen Kullman make DuPont Great Again?” *Fortune*, 3 May 2010, 156-163; M. Reisch, “Leading DuPont: After a Difficult First Year as CEO, Ellen Kullman sets the Stage for Growth,” *Chemical & Engineering News*, 12 April 2010, 10-13.

### What Really Happened? Solution

In the case, you learned that the DuPont Corporation, founded in 1802, was a manufacturer of blasting powder in its first 100 years. In its second 100 years, it became one of the world’s leading chemical companies, producing products such as Teflon, Lucite, and Kevlar. DuPont’s last 25 years, however, have not been as successful. While profitable, DuPont’s product and financial performance ranks just 16th out of 19 comparison companies. During the recent world financial crisis, sales dropped by 20%, 6,500 employees lost their jobs, and the company’s annual budget was cut by $1 billion. Let’s find out what happened at DuPont and see what plans CEO Ellen Kullman made and the steps she took to restore DuPont’s prestige, performance, and competitiveness.

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A purpose statement, which is often referred to as an organizational mission or vision, is a statement of a company’s purpose or reason for existing. Purpose statements are typically brief – usually no more than two sentences. They should also be enduring, inspirational, clear, and consistent with widely shared company beliefs and values. Dupont’s long-time purpose statement was, “Better things for better living … through chemistry.” However, over the last 25 years, DuPont has regularly underperformed when compared to a set of 19 peer companies. After such an extended period of poor performance, is it enough just to examine how DuPont does business, or should the company reexamine its purpose, that is, its reason for existing?

DuPont CEO, Ellen Kullman, tells a story in which she shares that she is reading the biography of Alfred du Pont, one of the sons of founder E.I. du Pont, who later bought and ran the company with his cousins, Pierre and Coleman du Pont. Kullman says,

*The company they bought in 1902 was still very much the explosives company that it had been throughout the 19th century. But they didn't look back; they looked forward. In many ways they invented the large industrial corporation of the 20th century--a business model they called simply, the "Big Company."*

*And one of them--Pierre--lived to see DuPont invent nylon, which changed the company forever.*

*And that's my point:*

*In 1902, they couldn't have imagined a product like nylon--but they didn't have to. They saw that the next half-century would be a time of discovery and innovation. They put in place scientific and engineering capability. They built financial muscle to sustain it. They developed capable leaders. When the big, unexpected opportunity came, the company was ready.*

With this statement, Kullman is linking DuPont’s past with its present, but it’s a past in which the company succeeded by changing the business that it was in from blasting powder and explosives to chemicals.

Kullman’s predecessor, CEO Charles O. Holliday Jr., began the process of changing DuPont’s purpose by selling Conoco Oil, pharmaceutical divisions, and nylon and textile divisions, the latter of which were once thought to be the core of the company. In their absence, Holliday stated that DuPont would “be the world’s most dynamic science company.” Kullman built on Holliday’s changes, declaring that DuPont was in the “innovation and science” business.

Consistent with that purpose, Kullman decided to pay $6.3 billion to acquire Danisco, a Danish biotechnology company that uses industrial enzymes to make ethanol, food, animal feed, and textiles. From a market standpoint, acquiring Danisco makes DuPont the world’s largest manufacturer of food additives and the second largest producer of the enzymes used to make biofuels.

But, from the standpoint of DuPont’s purpose, the purchase of Danisco, said Kullman, “advances DuPont’s position as a clear leader in industrial biotechnology, with science-intensive innovations that address global challenges in food production and reduced fossil fuel consumption.” In other words, DuPont’s business is “science and innovation.” She goes on to say, “Also, with this acquisition we would add two very attractive businesses to our portfolio that are in the sweet spot of our growth strategy. Specifically, there is an industrial enzyme business that would enhance our applied biosciences business and a specialty food ingredient business that is complementary to our nutrition and health business.”

Was it time, again, to reconsider what DuPont was all about? Clearly, according to CEO Kullman it was. For the second time in its 210 year history, DuPont changed why it exists.

*Or, instead of an intense focus on DuPont’s purpose, would it make more sense to make lots of plans and lots of bets so that “a thousand flowers can bloom?” In other words, would it be better to keep options open by making small, simultaneous investments in many alternative plans? Then, when one or a few of these plans emerge as likely winners, you invest even more in these plans while discontinuing or reducing investment in the others.*

Because action plans are sometimes poorly conceived and goals sometimes turn out not to be achievable, the last step in developing an effective plan is to maintain flexibility. One method of maintaining flexibility while planning is to adopt an options-based approach. The goal of options-based planning is to keep options open by making small, simultaneous investments in many alternative plans. Then, when one or a few of these plans emerge as likely winners, you invest even more in these plans while discontinuing or reducing investment in the others. In part, options-based planning is the opposite of traditional planning. Whereas the purpose of an action plan is to commit people and resources to a particular course of action, the purpose of options-based planning is to leave those commitments open by maintaining slack resources, that is, a cushion of resources, such as extra time, people, money, or production capacity, that can be used to address and adapt to unanticipated changes, problems, or opportunities. Holding options open gives you choices. And choices, combined with slack resources, give you flexibility.

While CEO Ellen Kullman and her predecessor, Charles Holliday, Jr., changed DuPont’s purpose from being a “chemical company” to being a “science company” to being an “innovation and science” company, that change in purpose was also accompanied by options-based planning. More specifically, while DuPont was now in the business of “innovation and science,” it would be in that business across five “growth platforms,” agriculture and nutrition (Pioneer seeds), coatings and color technologies (automobile finishes), electronic and communication technologies (solar panels), performance materials (resins and laminated glass), and safety and protection (fibers and materials used in body armor or firefighting).

The set of businesses in each growth platform was then charged with achieving specific growth goals. DuPont supported the five growth platforms with something it called, “Knowledge Intensive University.” According to Planning Director Robert Cooper, DuPont launched 2 programs, “for ‘knowledge intensive’ growth to drive value creation through a basic knowledge of our customers, markets, and intellectual property.” Cooper explains, “One is for the top management of product divisions and global businesses. This program helps our most senior people develop an understanding of how to establish the best places to grow; the importance of creating a sense of urgency; and how to allocate resources among the business teams that must execute the agenda. The second program is for the business teams themselves. That program is intended to help our business teams identify, test, and implement their best ‘growth engines.’” In other words, DuPont’s not only took an options-based approach to planning by pursuing business across five growth platforms, it increased the odds of each option or growth platform achieving its goals by teaching its managers and employees how to pursue and manage high growth businesses.

One of the keys to the combination of a new purpose - “innovation and science” – used across the five growth platforms is to decrease the amount of time it takes to bring new products to market in order to increase revenues from new products. Thomas Connelly, DuPont’s chief innovation officer, says, “My rallying cry is launch hard and ramp fast.” Nine years ago, new products accounted for just 22% of revenues. Progress on new product development time has been impressive, however, as roughly 40% of DuPont’s revenues now come from products introduced in the last five years. That isn’t enough for CEO Kullman who says, “We are challenging our teams over the next few years to move brand-new products into the 50% range.”

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Planning is one of the best ways to improve organizational and individual performance. It encourages people to work harder (intensified effort), to work hard for extended periods (persistence), to engage in behaviors directly related to goal accomplishment (directed behavior), and to think of better ways to do their jobs (task strategies). However, planning also has three potential pitfalls. Companies that are overly committed to their plans may be slow to adapt to changes in their environment. Planning is based on assumptions about the future, and when those assumptions are wrong, the plans are likely to fail. Finally, planning can fail when planners are detached from the implementation of plans.

With DuPont in business to be an “innovation and science” company pursuing growth across five different “growth platforms,” what goal should CEO Ellen Kullman set for the company? And should there be an overriding goal, or should there be separate goals for different parts of the company?

Kullman’s top goal is for DuPont to increase its earnings per share by 20% per year. In most companies, this would be a super aggressive goal, but achieving this goal would return the company to price-earnings ratios that it was earning five years ago. So while this is an aggressive annual goal, it’s also modest in the sense that it is returning DuPont to a previously achieved level of earnings. How doable is Kullman’s goal? In the last half century, four of the last nine DuPont CEOs were able to achieve this level of earnings growth over a three-year period. None, however, were able to make this growth last four consecutive years. So, what can Kullman do to increase the odds of achieving this goal?

If you remember from the case, the only place in the company that Kullman refused to cut costs was in Research & Development (R&D). Said Kullman, “We felt we needed to emerge from the global financial crisis in a position that would enable us to help our customers be more successful. And the best way for us to do that was to innovate and develop new products that would enable our customers to succeed in their markets.”

Although R&D budgets were not cut, discretionary travel was eliminated, and every R&D program was expected to produce customer-valued products that could be profitable. Uma Chowdhry, DuPont's chief science and technology officer, explained that “DuPont research managers need to show their projects can be expected to make a tidy profit to continue to receive funding.” Thomas M. Connelly Jr., DuPont's chief innovation officer, makes the key point that, “We can’t leave our science in the library.” The focus on research with market potential appears to be working. In 2009, DuPont filed for 2,086 U.S. Patents, the highest in company history, and 8% higher than the year before. Furthermore, DuPont brought 1,400 new products to market in 2009, more than in any previous year.

Finally, should DuPont have an overriding goal, or should it have separate goals for different parts of the company? While CEO Kullman’s top goal is to increase earnings per share by 20% per year, those goals will be translated into seven specific segments of the company: agriculture and nutrition; electronics and communications; performance coatings; performance materials; safety and protection; performance chemicals; and pharmaceuticals. Translating the overall goal into specific sections of the company avoids the planning pitfall where planners are detached from the implementation of the plan. For managers and employees, overall company goals, particularly in large companies like DuPont, can seem distant and unobtainable. After all, how much of a difference can you make in your job to the overall company goal? For most people, the answer is, “Not so much.” That changes, however, when you’re responsible for specific goals related to your job in your area of the company. In other words, plans and goals are much more likely to motivate if people feel they can influence the achievement of the goal.