

The Innovation Engine

An Interview with Ellen Kullman,
Chair of the Board and Chief Executive Officer, DuPont



Ellen Kullman

EDITORS' NOTE Ellen Kullman became CEO in January of 2009 and Chair of the Board in December of that year. She was President from October 1st through December 31st of 2008. Prior to that, she served as Executive Vice President and a member of the company's office of the chief executive. Kullman began her career at DuPont in 1988 as a marketing manager. She served as Business Director for several businesses including White Pigment & Mineral Products where she became Vice President and General Manager in 1995. She was named Group Vice President of the DuPont Safety & Protection platform in 2002. In 2006, she was named Executive Vice President with responsibility for three business platforms and several functions including Marketing & Sales. She is Co-Chair of the National Academy of Engineering Committee on Changing the Conversation: From Research to Action and a member of the President's Council on Jobs and Competitiveness. Prior to joining DuPont, Kullman worked for Westinghouse and General Electric. She holds a bachelor of science degree in mechanical engineering from Tufts University and a master's degree in management from Northwestern University.

COMPANY BRIEF DuPont (www.dupont.com) has been bringing world-class science and engineering to the global marketplace in the form of innovative products, materials, and services since 1802. The company believes that by collaborating with customers, governments, NGOs, and thought leaders, it can help find solutions to such global challenges as providing enough healthy food for people everywhere, decreasing dependence on fossil fuels, and protecting life and the environment.

How deep is the culture of innovation at DuPont and how have you maintained that as the company continues to grow?

From the day I walked into the company, I knew it was different from other places I had been from a core value and an innovation standpoint. We look at it all the way from basic science through application development, so some of our innovation develops in big steps and some in small steps.

If you look at things we introduced 40 to 60 years ago, such as Kevlar and Teflon, the Kevlar and Teflon of today look nothing like they originally did. The Kevlar is lighter weight and much stronger, and those improvements are based on our culture, which is one that continues to innovate and advance the science.

Over the past couple of decades, we have crossed scientific boundaries between chemistry and biology and put them in the same room to see what they can create together. Even though that innovation is part of our DNA, you have to foster it and make sure that everyone in the company knows how important it is to our future. If we would have stopped innovating in the late 1800s and early 1900s when we were an explosives company, we wouldn't be here today. So we have to continue that.

You recently announced a strong outlook for growth going forward. From a geographic point of view, will much of that be outside the U.S. or are there still strong growth opportunities for DuPont in the domestic market?

The U.S. is about 40 percent of our sales and while the market has been softening a bit, it's still very large and has tremendous value and room for innovation. Although from a growth standpoint, emerging markets are becoming a much larger percentage of our total – in 2010, they were 27 percent and in places like China they accounted for more than

\$3 billion in revenue – you can't ignore one part and focus solely on the other; it's an "and" equation as opposed to an "or" equation.

So we all have to do well. We do all of our basic research here. We're a large exporter from the U.S. We have a lot of plants here in the U.S. that are very productive from an advanced manufacturing standpoint. But we need local application development in Brazil, China, India, Europe, and other places in the world in order to continue to grow.

You have also opened a few innovation centers in overseas markets. Do you intend to continue that process?

Most of our research and development centers are in the U.S. Over the past seven years, we put major centers in Hyderabad, India; Paulinia, Brazil; Shanghai China; and there are a few in Europe.

We can't put full research and development centers in every city in the world, but we can put in innovation centers, which have a lot of capability and application development personnel. In a country like India with a focus on the automotive industry, for example, we engage with Tata Motors and learn how they want to utilize our advanced materials – our plastics and coatings – for their products. This collaboration with our innovation center gives them a connectedness to the other research centers around the world, and we can seamlessly connect our researchers and application developers globally in order to increase the pace of innovation and application development.

Although our scientists might be in the U.S., they can have a conversation or video conference with local companies anywhere in the world about specific projects, and can leverage our research and development and innovation capability globally in a seamless fashion.

Are the various business segments at DuPont somewhat independent? How close is the coordination among them?

Each of the 13 businesses and seven or eight external segments have a clear set of competitors and capabilities, and a clear plan on what winning means for them. But several of our segments fall into the same industry; for instance, our coatings and plastics businesses and our safety and protection businesses all serve the automotive industry. So we coordinate, but each business needs to focus on how they continue to develop and innovate for the customer to make us successful within that industry.

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Is it challenging in some of these segments to differentiate?

It differs by segment. Competition is coming from everywhere and that is why innovation is so important. Customers want their suppliers to be the best and brightest and to bring their ideas and their innovation to help them succeed, and if we can be part of that, we'll be successful as well. But it is a very competitive world and that's why keeping the innovation engine going is very important.

How critical is it for your workforce to reflect the diversity of your customer base and have you been happy with how you've built an inclusive environment?

For DuPont, it starts with our core values of safety, environment, ethics, and respect for people. Those have always been clear as the core of the company's makeup, so no matter who you are or where you are in the world, those values are a constant. We need people who have the skills, creativity, and focus to deliver our innovation, and we look broadly for the diverse talent to continue to drive that. I believe a diverse group produces more than a group that thinks the same or looks the same.

Is enough being done to encourage young people to enter science and engineering?

We need more engineers, but first, I'm worried about getting them for DuPont.

When you talk to young people today about the challenges that population growth brings, the need to feed the world, to protect people and the environment, and to provide energy for people, these are real issues that kids are interested in helping find solutions for.

If you look at our projects that help feed the world – improving the volume of crops through

our Pioneer business, helping to put healthier food on the table by solving malnutrition and over nutrition, and protecting the full value chain – kids get excited by those things.

We just opened a new Kevlar plant outside of Charleston, South Carolina and you get a real sense of pride coming from our engineers and operators who work there because they believe they're helping make the world a safer place.

So DuPont can be a place for young engineers to have a great career while helping to solve some of the toughest problems in the world.

How critical is corporate responsibility to DuPont and how do you drive that throughout the organization?

When I joined DuPont in the '80s, sustainability was very important to the then CEO. He called himself a chief environmental officer – he was a real pioneer. Chad Holliday also championed sustainable development, so it's embedded now in what we do.

We not only think about footprint reduction when we think about sustainability; we think about it from a numerator standpoint, how we create products that keep the environment or the world safe.

With global warming, if we can help automotive companies meet their CAP A standards by offering phenomenal plastics that lead to lightweight cars that last longer than those with metal, then we're helping that equation. Our plant managers are also active in their communities because we operate with the consent of the local environment.

So our commitment has always been there, but it has evolved as the world has become more transparent.

Should more be done to attract women to this industry and do you see progress being made?

I look at engineering schools today and they enroll 20 to 30 percent women as opposed to there just being three of us when I attended. So there is progress. I believe we're not doing the right job in middle schools to get more kids into engineering no matter what their gender.

We, as leaders, have to make sure we're creating an environment in our companies where the best, brightest, and most diverse want to come to work and where they can excel and utilize their talents to create real value, because at day's end, we're all measured by the value we create.

When you joined DuPont, if someone told you you'd be running this company someday, what would you have said?

I'd tell that person that he or she was crazy. I didn't have my eyes on this job; I just wanted to run a business and see what I could do. I never looked at my career in more than three to five year increments. I believe I'm responsible for my career and development and I have to continue to develop. I'm proud to run this company – it is a phenomenal place.

Is it tough in your role to be less engaged in everything and to give up some of that control?

Even when you're running a \$2-billion business, you learn how to work through influence. I can make sure I have the right people in the right jobs with the right skills, core values,

and attitudes. I can set the bar for the goals in the company and set the direction we need to go. But I have to be an enabler – I can't make all the decisions. That would shut the place down.

If I see something happening that is totally outside of our core values, do I get involved? Absolutely. But I get involved more with helping people understand, because if I tell them what to do, it will go away quickly; if I help them understand where we're going and teach them, then it will stick.

I'm a believer in total accountability and transparency and that we have to increase our speed of innovation, and we have to be very agile in this environment and not get tunnel vision.

There has been a lot of success under your leadership. Do you take the time to celebrate some of that or are you always looking ahead?

We celebrate. But I get my energy from the team and from being in the marketplace, so I have to constantly move. I have to think about what is next because there are 67,000 people who want to hear where we're going as a company. It has to be consistent, but also forward looking.

If I can help each person understand what he or she does to help DuPont become successful, then we'll be successful.

Is it feasible at the top levels to have a work/life balance today?

It's not about having a set time; both personal and professional lives are 24/7. It's more about making the right allocation to each one and recognizing it's going to be different every day. But you don't do these jobs unless you really love what you do. ●

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