

# LG Sets Its Sights on Number One

*LG Electronics, Inc., a multi-billion-dollar technology leader in home appliances, consumer electronics, mobile communications, business solutions and air conditioning, looks to not only become the top company in its industry, but also one of the best supply chain organizations in the world. Learn how LG plans to have one goal help enable the other.*

by Kelly Thomas

As chief supply chain officer for LG Electronics, Didier Chenneveau has global responsibility for the company's supply chain management. He is based at LG's headquarters in Seoul, Korea. In this September 2009 interview, conducted by Kelly Thomas, i2's senior vice president, product strategy and planning, Chenneveau discusses LG's strategy to create and maintain a world-class supply chain organization, and how these efforts will help the electronics company achieve its overall business goals.

*Didier, your title is chief supply chain officer. There are a lot of companies out there struggling to create a supply chain organization that drives maximum value to the company. Can you explain your role at LG, and how you're organized for success?*

My role is, in a sense, quite simple. I try to coordinate all of the supply chain activities throughout the corporation. When we had a new CEO coming in about a year and a

half ago, we realized that it was of great strategic importance to ensure our supply chain was a core competency for the company. We really wanted to elevate this function to a "C" level from a staff level. Prior to that, it had been fairly decentralized among the five big businesses that we have.

We wanted to bring a truly world-class professionalism to that position. So I think that it's a good way to organize. Obviously, we have a central function, which I head, but we also have supply chain leaders in each of our businesses who focus specifically on their respective business. Then we also have a regional organization where we have supply chain executives at the vice president and senior vice president levels running our regions.

*In your previous positions, you worked in finance and operations. How has the finance experience helped you in your current role, and what is the intersection between finance and supply chain? How do you see those two working together?*

It's been quite helpful. I worked for many years at HP, and I actually started in treasury as a currency trader, but then fairly quickly moved into more classical finance. Especially at HP, and I think at many corporations, there's a lot of movement between finance and operations, because it really helps to have a good understanding of the cost structures and the cost drivers. So, I think it's critical for operations people to have a financial background.

Today, in the role I play, finance is of the utmost importance, of course. We constantly look at the numbers. We have a lot of key performance indicators. We have metrics in a lot of areas, so my financial background helps me in this regard.

*On the metrics front, we've seen that many other supply chain leaders are maniacal about measurement. They have good linkages from top to bottom. Is this true at LG? Can you roll up and roll down metrics?*

We're trying really hard in that respect. Traditionally, I've seen that things were cut in very small buckets, and



very often optimized into very small buckets, and not always optimized completely. One of the biggest challenges has been to create this end-to-end visibility. We always measured cost in fairly small pieces. We tend to optimize only for those small pieces and not the overall end-to-end supply chain cost. I've been constantly reminding people that being the cheapest outbound with a factory in China may not mean being the cheapest once the product has landed in Europe or North America.

*That's certainly a challenge, and we see that in quite a few situations. So you're looking for the best global answer when making decisions?*

Yes, and the metrics have to incorporate the total landed cost at the customer's warehouse or picking point. It cannot just be the best warehousing cost in China, or the best transportation from China to Europe, because the sum of those bests may not be the optimum. We are still struggling to have this type of good visibility, but it's getting better. Obviously the IT systems are helping a great deal.

*LG has a goal of ranking among the top three electronics, information and telecommunications companies. What role does supply chain management play in the strategic goals of LG?*

It's a critical one. I always say it is one thing to have the greatest design and the greatest product, but you must be able to deliver it to the customer. We're traditionally a very manufacturing-focused company. We're trying to transform more into a customer-driven and product-driven company, but the supply chain still plays a critical role. That's what's going to link a great R&D and a great product development effort to customer delivery. All of the supply/demand matching processes, all of the logistics processes, all of the transportation processes and all of the order management processes need to be absolutely world-class. Otherwise, we will never achieve that number one status, which we really strive for.

*In that area, what do you see your customers pushing for in terms of delivery? What are some of the trends that your customers are driving?*

We see more and more requests for direct delivery, so we're trying to bypass the node. Obviously, the more nodes in the supply chain, the more risk we have of having excess inventory, and the wrong type of inventory. So a direct shipment from our factories to some of our customers is definitely something we are trying to implement. With North America, for example, we manufacture TVs in Mexico. For many customers, we are trying to deliver directly to the warehouse.

*Can you do that with international sources of supply, or do you have to do that with regional sources of supply?*

No, you could use international sources in the case of cell phones. It's quasi-direct, so your cell phone would come from either Korea or China to a Chicago hub, for example, and then we would distribute those directly to the operators.

*In the past you've talked about a focus on process, people and partners. How do you see that concentration interweaving with the supply chain? What's the role of technology in that mix?*

I settled on these three—what I call the three Ps—to send a very clear message to the organization about what we needed to focus on. It is kind of a rallying cry, and it has been the center of my internal communication. I keep reminding people that we need to focus on having the best processes, the best people and the best partners to achieve our objective, which is to be one of the top 10 best supply chain companies in the world. The role of technology incorporates these three pieces.

With process, obviously, IT systems need to be there to support us. So we have very fluid supply/demand matching processes. By definition, all of the processes need to be supported by the system in a \$50 billion dollar corporation. When it comes to the people side, our team needs to be able to master technology, to understand how to operate the software and to have the skills that enable us to execute. The partner side is also very important. I want to work with partners that can master technology, because that will make them more efficient for us. We really need to have that quality of partner, and that will reduce their cost structure as well.

*Do you do supply/demand matching on a global basis?*

No, we currently do not. We have five major businesses, and we have essentially five supply/demand matching engines, but we're looking at consolidating those. What we are definitely doing globally in all of our marketing subsidiaries around the world is defining the processes. We know exactly how it must be run, and we're trying to do it only one time, not 82 different ways, times five different businesses, which would be a nightmare.

The supply/demand matching process, and how we go about doing the demand forecast, have been defined and standardized around the world. We're actually evaluating each and every marketing subsidiary on their compliance with the process, so we have a fairly sophisticated capability index. We look at whether the subsidiaries are following the process as it has been defined.

*And then the direct interaction with the retailer or the customer is done by the marketing subsidiary in that process?*

Yes, absolutely. We basically moved from a monthly planning process to a weekly process. We are trying to do weekly collaboration with retailers as much as possible. In many instances, with the most advanced retailers, we are doing collaborative planning, forecasting and replenishment thought processes, and that's done country by country, by what we call our marketing subsidiaries.

*What kind of benefits have you seen by moving to a faster cycle, from monthly to weekly?*

It's much easier to plan your business when you do it 52 times a year, than when you do it 12 times a year. So, sales forecast accuracy obviously goes up, which is one of the key measures we have. We measure it at 4 weeks, 8 weeks and 12 weeks. It is relatively low. About 12–18 months ago, our 4-week forecast accuracy was in the mid-20 percent range. By standardizing the process using some of the i2 software, we've been able to increase this dramatically. We're probably around 35–40 percent now. I think to be a world-class company, we probably need to reach 50 or 60 percent, so we still have a ways to go, but it's at the core of our supply chain process. You can't have an efficient supply chain if you don't do supply/demand matching well.

*With distributed marketing subsidiaries, obviously people play a critical role in the standardization of processes. How do you train the team to drive a single process across multiple marketing subsidiaries around the globe?*

It is challenging. I have a team of excellent people in Korea and around the world helping us do this. We have a program that we call our Change Acceleration Program, and we send 2 or 3 people from headquarters to the subsidiary to spend four to five weeks with the folks in the country going through the process.

So, it's not just 3 consultants coming for 2 days, telling you how to do things and leaving. We actually integrate them with the team so they can go through the process multiple times during a 4- or 5-week period to ensure they really understand how to do it. It's been quite successful. Since we've done this, we've seen the sales forecast accuracy go up quite dramatically.

*When considering rolling out to emerging markets, do you see any challenges related to infrastructure, driving these standardized processes, and so on?*

Actually, no. It's quite interesting. If you look at a market like China, for example, we've been quite successful with planning based on sell-out rather than sell-in. The structure of retail in China allows for a lot of promoters to be actually in the store. So we get fairly accurate data on sell-through and inventory from the promoters on an almost daily basis. There are some markets in which the information is not being received in traditional ways like it is in the United States, but we achieve a similar type of result just because of the structure of the retail market.

Some of the markets are a little bit more challenging, mainly because it's hard to recruit supply chain talent, such as in Eastern Europe, for example. There's truly a shortage of supply chain talent, so it is a little more difficult to find the skill set we need. But in general, it has been fairly level across the world.

*Particularly in the last few years, we've seen companies driving a lot of efficiencies and reduced cost in the area of transportation. What has LG done in the area of transportation, particularly as it relates to i2?*

We've basically done two things. We have really improved our global bidding processes—the way we go about procuring transportation on a global basis. We've put a better bidding system in place. We've analyzed the marketplace. We've tried to be more efficient in our use of transportation.

The i2 tool has helped us in the transportation management piece, which we've implemented in a certain region of the world. It's optimizing the routing, optimizing the network and trying to optimize the loading of the truck. We still have a ways to go. I have plans to roll out the transportation management system around the world. It's not complete, but it is definitely on the roadmap.

Currently we are working with i2 in Europe to see how we can achieve more good results. It's been quite successful in North America. We've done it in the United States, Mexico and Canada. We've done it in Korea, so now it's time for expansion.

*With a global, multi-tier supply chain such as yours, how can you optimize service levels while positioning the minimum amount of inventory? What kind of risks does a global supply chain present?*

This was obviously a big opportunity for LG. Traditionally, the safety stock setting had been done in a fairly uniform way, so we had set up safety stock at 2 weeks, 10 days, 15 days, without much regard for the variability of the demand, or the variability of lead time. We started a pilot program about 8 or 9 months ago,

looking at our refrigerator business in Europe. We quickly came to the conclusion that we could maintain service levels or even improve service levels while reducing the safety stock and the total amount of inventory we had in the chain. We had countries where we had safety stock of about 20–21 days, and we found we could achieve the same service level with 7 days of safety stock.

So, that's what we are in the process of doing. Product by product, country by country, we are reviewing what our safety stock and optimum inventory levels need to be, and increasing it when necessary. People always tell me, "Oh, Didier, you only want to reduce inventory." I say, "No I want to reduce inventory when I think there's excess, and when the mathematics tell us there's excess. We will increase it where it makes sense." There have been a couple of countries in which we've actually increased inventory levels to improve availability.

*What role do your customers play in that area? Are they pressuring you for greater amounts of inventory?*

Not so much. I won't say that the pressure comes from retailers. Of course they want availability, and they want reliability. I think that's the most important thing. We were tying up a lot of cash in inventory that was not necessarily efficient, either because it was not in the right position, or because it was not being used. Some of it was aging. We had fairly severe aging issues.

The expectation is that, through this exercise, we are going to be able to continue to reduce our days of inventory. Approximately 12–18 months ago, we had about 59–60 days of inventory on a global basis. We're running at about 47 days now, and I think world-class is probably about 40 days, so we have about another 6–7 days to go.

*For many of the companies that we've seen, inventories on an absolute basis have come down, but sales have come down even faster than inventory. How have you fared so well with inventory in the economic situation you've dealt with in the last 12 months?*

As I just said, our days of inventory have dropped, and our sales have held well across the world. I think we anticipated the recession quite well. We created a war room focused on making sure we could succeed during a recession. We've made the necessary adjustments, and I think the brand is getting stronger, so I think that's helping.

*We deal with many multi-billion-dollar companies that have distributed divisions. They have central organizations and divisional organizations that*

*have supply chain leaders, and they are challenged with how to best drive process uniformity. As the global leader of supply chain, what's the interaction like between you and the divisional or subsidiary supply chain leaders?*

It takes place at several levels. First, we have a monthly review of our performance with our businesses in our region. So every month we get together, and we go through the discussion business by business, and region by region. We don't do the seven regions every month, but we rotate through the major regions, and we definitely do the business every month. We look at all our key performance indicators for supply chain management, and we also discuss some high-level strategic issues.

We have a supply chain council, which is made up of leaders from the various businesses and some of our key regions, and we meet two times a year to set high-level strategic direction. Then I meet with the business leaders, including the president of our five businesses, twice a year to review the major objectives for our supply chain, and we get consensus about what needs to be achieved.

I think that it's a fairly nice model. It certainly can be improved; there's always this issue within a matrix organization. Who really is the final decision maker? But I think we found our mark. Should it evolve over time? I should say so, but for now it's working pretty well.

*What's your take on supply chain complexity and where we're headed in 2010 and beyond?*

We're headed toward more complexity, because things are only going to get more sophisticated. That's why I believe a good process definition and great systems to support them are critical. I keep walking around the company and saying that we cannot run a \$50 billion dollar corporation on 20,000 Microsoft Excel spreadsheets. That just doesn't work. So we have to make sure that our systems are solid. And we're making a very substantial investment in system upgrades working with i2 and others to ensure that we have one single version of the truth. Everybody knows where to get the information, and there's only one way to get it. We want to ensure that people understand the system, and that they have visibility into both performance and execution.

*Let's talk for a moment about the interaction with customers. There has been a lot of discussion about point-of-sale data, looking at store-level assortments, getting greater insight into demand, using those insights to drive replenishments and so on. What's your take on where things are headed with the channel relationship?*



I think that point-of-sale data, for example, will help us better identify and respond to out-of-stock situations more efficiently than we do today. We have definitely moved from a sell-in forecasting model to a sell-out forecasting model. We are training all of our subsidiaries to focus on this and base their planning and forecasting on true sell-out to the customer, not sell-in to the retailer. We want to capture this information on a weekly basis. We want to know inventory levels at each and every retailer. We're not necessarily at the store level today, but I think we are going to reach that level of sophistication.

*What is LG's position on green supply chain initiatives, and where do you see these sorts of endeavors going in the future?*

Like any responsible corporation around the world, we pay a lot of attention to our environmental impact. I'm currently running a global study to determine our carbon footprint and carbon emissions based on our transportation and supply chain activity. Once I receive the final report, I'm going to make some decisions about optimizing our transportation and logistics to reduce the footprint over the next few years. This is critical. Every responsible company has a stake in this. LG, like the rest of Korea as a matter of fact, will play an active role in making sure that we're doing the right thing.

*Do you see that becoming systematized and actually part of a monthly or weekly process?*

I'd love to. Right now doing the measurement itself is still quite complex, so it's taking us a few months to make sure that we have the proper methodology, and that it's the methodology that's accepted by the worldwide community. We want to ensure that we're not just doing something to look good, but that we are following a rigor-

ous process. Eventually, maybe not every month, but I hope that at least two or three times a year we are able to assess the footprint and the measures that we are taking.

*You've had operating executive roles in all regions of the world, and you've been with LG for at least 18 months now. Any surprises in your tenure so far?*

It's been a very, very interesting journey. There is obviously a totally different management style than what you find in Western companies, but that is what I wanted. There have been great learning experiences. Asian and Korean companies are undergoing great transformation, and I think they are learning very fast. They are becoming global very quickly.

*How have your experiences in other parts of the world helped you in the Asian region?*

As a leader, you want to be able to communicate a clear vision and try to rally people around it. I don't think there's one single recipe, but over the years, I've learned to communicate in different environments and try to have people get behind the vision. Our vision is relatively simple. I tell folks that what we're doing is not rocket science. It's about having simple, clear processes that are repeatable and supported by systems. It's about having good skills around supply chain, and clear communication about what we're trying to achieve. We're not trying to put a man on the moon. We are trying to run an efficient, modern supply chain of a global corporation. So with good vision, good intelligence and good metrics, I think we will be one of the top 10 supply chain companies in the world. That's what will enable us to become number one in our industry. Being in the top three was the objective for the past two or three years, but obviously our objective now, which has been clearly stated by our CEO and the management team, is to become the number one consumer electronics company in the world. I think that's what motivates our people, and that's what drives our success.



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