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# Unilever Improves Sustainability Through Analytics

Real-time analytics are helping the consumer goods giant reach its sustainability goals by delivering fast insights into its vast global supply chain.

BY JOE MULLICH

**Unilever, one of the world's largest** consumer packaged goods companies, has made sustainability central to how it operates. Analytics, which provide rapid insight into Unilever's sprawling global supply chain, play a growing part in achieving those sustainability aims. In 2010, the company rolled out the Unilever Sustainable Living Plan,[1] in which it committed to achieving 60 specific goals by the end of the decade—all centered around improving health and well-being, reducing environmental impact and enhancing livelihoods (see Figure 1, "Goals of Unilever's Sustainable Living Plan").

To achieve these goals, Unilever needed to first ensure a robust, well-running and easy-to-monitor supply chain. In addition to its own internal sustainability goals, the company also needed to meet the requirements of Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), the European Union regulation that began a phased implementation in 2007 and imposes the strictest law to date regulating chemical substances.

All this represents a significant challenge for a company with such large and diverse product lines as Unilever. Everyday, more than two billion people use Unilever products, which include well-known brands such as Lipton, Knorr, Dove, Axe, Hellmann's and Omo. Unilever makes about 10,000 home and personal care products in Europe that use about 2,000 different chemicals in various combinations.

With the new REACH regulations, "We have to tell the suppliers where their materials are going and what we are using them for," says Peter Freunscht, regulatory affairs manager at Unilever. "The same raw material might go into a shampoo and a surface cleaner. It requires complex number-crunching to trace all these raw materials and understand the environmental impact of them."

FIGURE 1 **Goals of Unilever's Sustainable Living Plan**

- Help more than one billion people worldwide take action to improve their health and well-being.
- Source 100 percent of its agricultural raw materials sustainably.
- Cut the environmental footprint of making and using its products by 50 percent.

Source: Unilever

Unilever recently implemented an analytics platform that enables line-of-business managers to track all the complex elements related to supply chain efficiency and environmental impact and to take corrective actions. "One of the advantages of substance volume tracking as an analytical tool is the option to create a mass balance for our production sites, which allows us to calculate the detailed amounts of substances released into the environment," Freunscht says. "This is a lot more reliable than taking actual measurements, and it means that we can closely monitor and subsequently control and restrict emissions of our production sites."

By aggregating the data and making it easier to analyze, Unilever has reduced the time devoted to tracking raw materials by 80 percent.

## Analytics for Supply Chain Efficiency

Other data analytics initiatives at Unilever are focused on improving the company's ability to

### Unilever at a Glance

- **Company description:** £50 billion consumer packaged goods giant
- **Headquarters:** Unilever N.V. is based in Rotterdam, Netherlands, and Unilever PLC is based in London, United Kingdom
- **Products:** More than 400 food, beverage, cleaning agent and personal care brands, selling in over 190 countries
- **Customers:** On any given day, two billion people use Unilever products
- **Employees:** 173,000-plus
- **www.unilever.com**

Source: Unilever

1. Lingard, Thomas. "How Sustainability Is Becoming a Driver of Growth for Unilever." Management Innovation Exchange, May 11, 2012. http://tinyurl.com/mzwgh34

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## Unilever's Analytics Challenges

- **Sustainability**: Unilever set ambitious internal sustainability goals and also needed to meet the requirements of the European Union's REACH regulations.
- **Data volumes:** To meet sustainability requirements, Unilever needed to track the raw materials of 10,000 home and personal care products that use 2,000 different chemicals in various combinations.

## Elements of Unilever's Analytics Solution

- **An in-memory-based analytics platform** that enables line-of-business managers to quickly generate insights across the supply chain to improve efficiency and environmental impact.
- **Fast data aggregation and analytics** that reduce the time devoted to tracking raw materials by 80 percent.

understand its global supply chain and to make fast decisions that cut costs and improve efficiency. For example, the company has completed an early implementation of in-memory database software accelerators for profitability analysis in the Americas.[2] Unilever is now expanding the use of this technology into Asia for operational planning[3], and the company expects to generate insights from the 30,000 transactions per second that run across its value chain. Ultimately, Unilever plans to use the technology worldwide for reporting, analytics and forecasting.

The in-memory database accelerators can significantly cut the time needed to calculate product costs, enabling speedier decisions on raw material sourcing, product pricing and profitability. In one proof-of-concept test, Unilever was able to perform product cost and pricing analysis on 200 million records in 30 seconds. This was less than a tenth of the time necessary to perform the same analysis on a standard system, which required almost 7.5 minutes.[4]

"We've really got challenges in terms of the data we need to process, and speed is really [required at] the start of planning [processes]," says Thomas Benthien, Unilever's director of global IT innovation for finance and enterprise support.[5] Aiming to make greater use of the software's analytics capabilities, Unilever hopes to harness the technology and the rapid insights it can provide to meet its target of doubling its business by 2020.

## Sustainability Progress

So far, the company is pleased with the headway it is making toward its sustainability goals. These improvements, bolstered by the analytics initiatives, have delivered a range of tangible benefits (see Figure 2, "Sustainability Outcomes").

In a world where natural resources can significantly impact a company's success from both an environmental and an economic standpoint, a greater understanding of global supply chains—bolstered by the use of advanced analytics—will increasingly become a business imperative.

"Sustainable growth will be the only acceptable model of growth in the future, which is why we have put the Unilever Sustainable Living Plan at the heart of our business strategy," says Unilever CEO Paul Polman.[6] "And far from being a hindrance to our progress, we are now seeing increasing evidence that it can drive business growth." •

## FIGURE 2 Sustainability Outcomes

- **More sustainable product sourcing.** 24 percent of the company's total agricultural raw materials are now being sourced sustainably vs. 14 percent in 2010.[7]
- **Better supplier relationships.** In a January 2013 report by the Food Ethics Council, Unilever was cited as a company that has built longer term, more stable relationships with its suppliers.[8]
- **Reduced costs.** Managing its operations sustainably drives out waste, reduces energy and minimizes packaging, saving money for both Unilever and consumers.[9]
- **Inroads into emerging economies.** More than half of Unilever's sales are now in developing countries, which often face the most difficult sustainability challenges. The company believes its sustainability initiatives, and the resulting products, can help people adapt to a changing world and drive growth.[10]

Sources: Unilever and various reports

*Joe Mullich is a freelance writer in Sherman Oaks, Calif., who has written for many business and technology publications.*

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