Flavor & Fragrance Leaderboard

A review of top companies' sales, R&D and sustainability efforts, M&A activity and key market growth areas.

he global fragrance and flavor industry has continued its growth this year amid slowdowns in key developing markets, regulatory pressures, and the consumer push for naturals and transparency.

In a series of interviews with top executives at leading F&F houses, companies have expressed that raw material price concerns are less prevalent now than in years past, although the industry is becoming more competitive as acquisitions consolidate the industry and regulatory burdens mount. F&F companies are diversifying their portfolios into probiotics, cosmetic actives and more, while pushing their business models toward sustainability. At the heart of all activities is a desire for customer- and consumer-relevant innovation.

The flavor and fragrance market could total \$35.5 billion by 2019.

There are certainly bright spots ahead for the remainder of this year and the next. The global flavor and fragrance market totaled \$24.89 billion in 2014, up from \$21.8 billion just three years ago. According to a new analysis by BCC Research (www.bccresearch.com), the market could total \$35.5 billion by 2019. The North American market is expected to grow to \$9.9 billion in 2019, representing a compound annual growth rate (CAGR) of 5.7%. Western Europe's market is expected to grow to \$9.7 billion in 2019, representing a CAGR of 5.8%. The Asian flavor and fragrance market is anticipated to reach \$9.6 billion by 2019, growing at an estimated CAGR of 6.2% from 2014 to 2019. To that end, many of the top F&F companies are investing in infrastructure and research and development to prepare for the future.

Here, $P \not \cup F$ magazine's 2015 Flavor $\not \cup$ Fragrance Leaderboard ranks the top 10 companies (see **A Note on Rankings**) and includes select exclusive interviews and information from key executives and company officials.

A Note on Rankings

The 2015 Flavor & Fragrance Leaderboard rankings are based on sales data and estimates*—gathered by Perfumer & Flavorist magazine and John Leffingwell, who provided the majority of the tabulations and market share estimates.** Rank is based on U.S. dollar equivalents. Conversions are based on major currency rates as of Dec. 31, 2014, unless otherwise noted.

According to Leffingwell, "For some years this distorts the actual performance in U.S. dollars, as we have seen significant currency swings within a given year. This was particularly prevalent in 2014, where a EUR/USD swing of nearly 13% and a CHF/USD swing of ~12% occurred between July 1 and December 31, 2014. Accordingly, after discussions with various industry financial experts, we are now using the 'yearly average' exchange rates (which more closely approximates that normally used in the companies)." Last year, 2014, has now been restated using the FOREX yearly average rates.

Also, according to Leffingwell, "It should be noted that Kerry Ingredients & Flavors should be in the top 10. However, the inclusion of so many other non-flavor ingredients in their sales numbers makes it impossible to truly estimate the F&F portion of sales. In March 2015, Frutarom estimated Kerry's flavor sales to be a little greater than US \$900 million."

The results for Takasago (fiscal year ending March 31) and Firmenich (year ending June 30) are estimates and will be adjusted when final results are announced.

Compare 2014 and 2015 Leaderboards

Read last year's *Flavor & Fragrance Leaderboard* feature on Page 18 of the June 2014 issue of *Perfumer & Flavorist*; www.perfumerflavorist.com/magazine/pastissues/.



^{*}See individual rankings for details; sales volume includes preliminary estimates as of press time (April 2015)

^{**}Leffingwell & Associates, 4699 Arbor Hill Road, Canton, GA 30115; tel: 1-770-889-5111; fax 1-770-887-0089; leffingwell@mindspring.com; www.leffingwell.com

Givaudan

Geneva

2014 sales: CHF4,404 million/\$4,818.5 million

Estimated market share: 19.4%

CEO, Executive Committee Member: Gilles Andrier



First Person: Gilles Andrier



Gilles Andrier

Converting Challenges into Opportunities

"The macroeconomic environment is still challenging," says Givaudan CEO Gilles Andrier. "Last year the emerging markets were still very much the engine of the industry."

This year, Asia-Pacific specifically china—is challenged, while Eastern Europe has been negatively

impacted by difficult economic and political conditions. While these challenges have already been felt by our customers, Andrier says they are only now trickling down to the supplier level.

On the other hand, he says, there is some expectation that markets like the United States are "coming back." Western Europe, meanwhile, is expected to be flat or grow modestly year-over-year. "We are not fearful of economic challenges," Andrier says. "We convert them into opportunities."

He notes that economic hardships allow Givaudan to strengthen its relationship with customers by supporting the work they do with their brands, product launches, innovation, etc. As a result, the company is more focused than ever on not only its customers' perspectives, but also those of consumers. This requires an ability to bridge innovation to the consumer level, which is particularly important given how critical flavor and fragrance are for brand success.

Cosmetics Business Expansion

"We had a small business in active cosmetics which was contained in the [2006] Quest acquisition," says Andrier, noting that the company's 2014 acquisition of Soliance was not its first foray into cosmetic ingredients.

The Soliance purchase, finalized in June of last year, brought Givaudan expertise in active ingredients derived from vegetable sources, microorganisms and microalgae.

Today, Andrier sees a close fit between fragrance and the growing cosmetic group. He notes that the expansion of expertise allows Givaudan to grow its footprint with customers by offering a wider scope of solutions. Like fragrance, cosmetic actives are innovation-driven and cost relatively little for customers, yet contribute significantly to brand functionality and success.

At the same time, Givaudan's R&D teams will have the opportunity to overlap activities among fragrance, flavor and cosmetics.

"We are not fearful of economic challenges."
We convert them into opportunities."

Emerging Fragrance Market Models

"The potential is strong between retail and manufacturers to find new ways to attract the consumers back into the stores ... especially for mature markets," says Andrier. This fragrance environment has created a great demand for innovation, he adds, and has spawned new niche perfume brands. At the same time, shifting behaviors have launched new internet business models and specialty retail outlets that completely change the supply chain dynamic. In emerging markets, says Andrier, there has been a fair amount of competition coming from regional customers that innovate quickly and compete with large brands. Givaudan is positioning itself to service the emerging and established customers alike.

Givaudan 2020

Givaudan runs on a five-year planning cycle that allows the company to outline its investments and develop and execute upon strategies based on a long-term perspective. The company's latest plan will conclude at the end of 2015, so Andrier and his team are in the midst of developing Givaudan's 2020 strategy. This plan will detail financial guidance and long-term innovation, which Andrier says will allow the company to outgrow the market overall. Looking ahead, he says that developing markets and health and wellness will be key drivers.

Andrier and Givaudan will also be focused on gaining market share with top customers and developing customer-relevant technology and innovation. As customers continue to rely heavily on their suppliers for innovation and know-how,

Industry

Givaudan has invested 10% of sales, or approximately CHF 400 million, into R&D activities for molecule development, natural products, biotech, encapsulation and more.

Givaudan currently spends about 1.6 billion CHF on raw materials each year, says Andrier, assembling materials that support customers' success. As part of its strategic vision, the company will continue its sourcing plan to remain competitive in an increasingly complex environment. The strategy aims to support current and future creativity for differentiation by strengthening the supply chain. As a

result, the company will continue to boost the sustainable production of its ingredients, in part by investing in new substitutes for feedstock.

As Andrier noted in Givaudan's annual report, "By taking into account trends that have the potential to highly impact our business and staying focused on our core activities while identifying new opportunities that add value to our customers, I am confident that we are well-positioned to achieve success during the course of the foreseeable future."

p&f

First Person: Maurizio Volpi



Maurizio Volpi

Creativity that Creates Value

"We create value as an industry thanks to our creativity," says Maurizio Volpi, president of Givaudan's fragrance division. This value creation supports an "ecosystem" that includes customers and retailers, all of which benefit from the delivery of products fragranced with improved creations. Volpi notes that while companies

such as Givaudan are typically seen as business-to-business companies, the complex relationship of brands to retailers to consumers requires us to think of fragrance as a business-to-business- to-consumer industry. This mindset is particularly important as the fragrance industry undergoes significant changes, including the emergence of ecommerce platforms and specialty retail—particularly for luxury and niche brands. These new models offer brands unique ways of delivering pleasurable shopping experiences to consumers, Volpi explains. He adds that customers are eager to provide their partners with access to consumers to optimize the delivery of relevant innovation. Meanwhile, Volpi sees value creation for their suppliers as well via access to growth markets. By bringing supplier innovation to customers, Volpi sees Givaudan as a value builder throughout the value chain.

Emerging Markets

Givaudan is interested in capitalizing on the rising purchasing power in Southeast Asia and other emerging markets, Volpi explains. These markets represent sources for manufacturing, raw material procurement and customer-engagement. Volpi notes that Givaudan has opened a sales office in Myanmar, significantly upgraded the creative center in Mumbai, launched a joint venture in China, announced the opening of a creative center in Singapore, and made investments in Africa and the Middle East, among other activities. This expansion has dovetailed with increased efforts to understand consumers in these new markets, Volpi says, adding that some growing

"We create value as an industry thanks to creativity."

markets have relatively low—if any—fragrance heritage. As a result, companies have to "move quickly and learn a lot" to compete as the pace of consumer evolution is high, as is the acceptance of new channels and tools like ecommerce. Despite any economic headwinds, Volpi explains that growth potential in the future remains strong as consumers evolve from adopting bar soap to shower gel to body sprays to fine fragrances. The size of the opportunity is significant.

R&D Innovation

"The role [of R&D] has never been more important," says Volpi. "We are at the point where consumers want everbetter products. The benchmarks keep getting more difficult to reach." The challenge, then, is to develop ever-better raw materials and technologies to foster and improve in the face of increasing consumer demand for ingredient information. Volpi says that in order to succeed, fragrance houses must "create fragrances that are unique."

Meanwhile, the fragrance market faces increased competition in beauty, home care and fine fragrance. Consumers want more authenticity, Volpi says, and high-quality materials. In this way, the modern craftsmanship of perfumers and unique raw materials play an important part in brand success. As a result, Givaudan is fostering a level of integration between creation and R&D which supports the optimization of delivery systems for encapsulated fragrances and the replacement of ingredients that have been regulated out of use. The cooperation with R&D has become so strong, says Volpi, that perfumers have begun to incorporate encapsulation into their formulation strategies. In turn, he says, "customers have become much more aware" of the technology and its benefits.

Sustainable Sourcing

"If you think about natural raw materials, we are a very small industry," says Volpi. However, natural resources are scarce, creating precarious sourcing challenges for the fragrance industry. To ensure access to ingredients, he says, Givaudan

(Continued on Page 24)

(Continued from Page 23)

has undertaken a series of sourcing strategies for tonka bean from Venezuela, lavender from France, benzoin from Laos, ylang ylang from Comoros, vanilla from Madagascar, and sandalwood from Australia, among others. Proximity to farmers and the value chain gives Givaudan the opportunity to act on the factors that impact raw material availability, Volpi explains. By supporting the building of schools and other initiatives that impact entire communities, the company is able to maintain long-term relationships throughout the value chain. At the same time, Givaudan is leveraging the power of biotechnology, evidenced by the 2014 acquisition of cosmetic ingredient firm Soliance. "The cosmetic ingredient business is fast-growing and very fragmented," says Volpi.

He adds that biotechnology not only supports cosmetic actives development, but also fragrance ingredients. The company has initiated a series of projects in the area of biotech ingredients based on feedstock with long-term availability.

Evolution of Customers

"The evolution of customers is dictated by retailers," says Volpi. He adds that he has observed more and more activity in the niche fine fragrance segment as customers buy up small brands to build scale. "This is extremely positive because this creates value," Volpi explains. "More consumers are buying in the niche perfume area and making those brands global."

At the same time, the rise of specialty retail presents new opportunities for fragrance houses. Volpi explains that these retailers tend to invest more in fragrance and create a strong retail experience that boosts consumer satisfaction. Even in mature markets, growth in areas such as discount retailers are oriented to a "good shopping experience," Volpi adds, and preserve the value of fragrance above other product aspects.

"Perfume is very resilient," Volpi notes, and cosmetic ingredients will play a key role in a fast-growing market that is innovation-hungry. Meanwhile, in oral care, consumers are trading up and showing customers how to invest in high sensorial quality oral care. This category is also particularly strong for the aging populations in mature markets. Whatever the category, Volpi concludes, he remains focused on "the importance of creating value for us, our customers and their consumers, the retailers and for our suppliers."

p&f

First Person: Mauricio Graber



Mauricio Graber

Beyond BRIC: the Power of Emerging Markets

"There is not going to be a straight line to success in developing markets," says Mauricio Graber, president of Givaudan's flavor division. Indeed, developing markets recently have presented the flavor industry and its customers with a more challenging environment, with notable slowdowns in Asia and

Eastern Europe. Despite this, Graber notes that emerging markets account for over 45% of the division's sales and are expanding at three to four times the rate of mature markets.

Givaudan's flavor group has spent the last year growing its global footprint to support emerging market growth, including investments in new labs and offices in Dubai, a spray drying facility in Indonesia, and offices in Nigeria and Myanmar. These investments will support global, regional and local customers, says Graber, who are looking to leverage their brands and innovations in ways that are relevant to consumers. Givaudan's teams in emerging markets work to build consumer and sensory understanding and bridge that with global innovations, while also gaining insights into the brands' value propositions.

"Innovation continues to be a very important factor for our customers and a way of bringing more relevance to consumer foods and beverages."

Local and regional customers tend to be more agile and entrepreneurial, says Graber, and also have a deeper understanding of local consumers and trends. What they lack is access to global innovation. Conversely, global brands have access to leading technology but often require partners to deliver local insights to bring relevance to the consumer.

As key elements of BRIC continue to falter, excepting India, local, regional and global brands are expanding their efforts to capture Africa's emerging markets. Graber says that rapidly growing processed food and retailing outlets across key markets is requiring investments beyond the historic base of South Africa. New middle class consumers have emerged, and the region as a whole has leapfrogged telecommunication, processing and retailing technology. As a result, global brands have made new investments in key markets, while local entrepreneurs have emerged to capture growth. Despite any challenges, markets such as Nigeria and Kenya are posting significant growth in sectors such as savory and beverage. Graber stresses that Givaudan is

committed to a long-term strategy in emerging markets. Even more important in difficult times, the company continues to build capabilities and strengthen partnerships with customers.

Expanding the Definition of Innovation

"Innovation continues to be a very important factor for our customers and a way of bringing more relevance to consumer foods and beverages," says Graber.

The company has spent approximately CHF 400 million on innovations in the last year, even as the company has expanded the boundaries of what "innovation" means. Today, Givaudan is pursuing innovations around products, which is the traditional approach, but has also expanded its focus to encompass processes and cost to create a more holistic approach. This broadened scope looks at not only internal capabilities, but also at strengthening external collaboration.

Graber explains that the traditional thinking delivered most, if not all, innovation to mature markets first, followed by emerging customers. Today, this is no longer the case. In 2014, Givaudan launched new flavor solutions in the areas of health and wellness, authenticity, naturals, sustainability and cost effectiveness. For instance, it produced Taste Solutions Richness, a taste technology that boosts the richness of packaged foods, delivering slow, homecooked fullness and authenticity. Givaudan also launched a platform of liquid concentrates for higher formulation stability in citrus and other profiles for consumer-friendly clean label products.

Givaudan is continuing its natural ingredient discovery via its facility in China, which employs fermentation and enzymatic technology to create innovative materials that deliver mouthfeel and masking flavors. The company is also focused on taste solutions for non-animal and non-dairy protein for good tasting, healthy products.

Health & Wellness

Health and wellness sales now account for more than 14% of the flavor group's sales says Graber. He adds that health and wellness is closely linked with Givaudan's innovation platforms and that this segment is impacting all categories across all geographies and all types of customers. To deliver healthier solutions, Givaudan is investing in new ingredients and consumer and sensory understanding to assist customers in product development to meet consumer demands for healthy, good tasting foods and beverages.

Givaudan is also investing in fat compensation/ replacement technologies for flavor systems to maintain mouthfeel and overall taste. The company also continues to focus on sweet enhancement, salt replacement, mouthfeel technologies, masking ingredients and protein solutions. Graber explains that these solutions will come from the natural side of R&D as consumers closely associate health and wellness with natural.

Sustainability at the Source

"Sustainable sourcing of materials is an integral part of our strategies," says Graber. This focus includes the preservation of natural resources, development stimulation for local communities, and stability of ingredient supplies now and in the future. For instance, Givaudan has joined the Roundtable on Sustainable Palm Oil to ensure the company is responsive to the ingredient's associated ecological burdens. Under the protocols, the company seeks to purchase only Certifiable Sustainable Palm Oil.

Givaudan's origination program, meanwhile, creates onthe-ground involvement at the source. Recently, the company established footholds in China for cassia and Madagascar for vanilla. In China, Givaudan is working with local grower communities to boost the sustainable production and processing of cassia leaves at the source. This has increased sustainability by optimizing production techniques while also allowing Givaudan to ship more concentrated material, reducing the carbon impact.

Customers & the Evolution of Snacking

The wave of food and beverage industry consolidation is ongoing, notes Graber. Yet, even as giants such as Kraft and Heinz merge, the largest companies continue to hold just a small portion of the global market. This dynamic creates two opportunities for Givaudan. First, as customer companies grow, they require their suppliers to establish ever-broader global footprints and innovation programs—scale and scope is crucial. Second, the relatively low concentration of the food and beverage market means that there are numerous global, regional and local customers requiring different types of services and expertise. As a result, says Graber, the flavor group is strengthening its product portfolio and account coverage, as well as its innovation and customer collaboration.

Graber says that all food and beverage segments have contributed to the flavor group's growth but that beverage and savory have been particularly strong. At the same time, Givaudan has delivered innovation to dairy protein applications, which resonate with young consumers.

The evolution of snacking is also a leading driver, according to Graber. Beyond traditional salty snacks such as potato chips, snacking has broadened to onthe-go products and solutions for bridging meals. This phenomenon has impacted developing and mature markets alike, expanding faster than the overall market. As eating occasions expand and become redefined, mature markets require food on the go that delivers a more satisfying, almost culinary experience. In developing markets, a growing middle class is working outside of the home and producing more snacking occasions, opening up new opportunities for applications such as bars, crackers and cookies. As the traditional snack category evolves into a wider set of solutions for different experiences, new opportunities emerge for Givaudan.

βЯ

2 Firmenich



Geneva

Estimated 2014 sales: ~CHF3,084.8 million/\$3,375.2 million

Estimated market share: 13.6%

CEO: Gilbert Ghostine

First Person: Gilbert Ghostine



Gilbert Ghostine

This is a historic year for Firmenich, marked by our 120th anniversary and leadership transition. As the first non-family member CEO of Firmenich, I am personally very excited to be leading a new chapter in the history of this inspiring fragrance and flavor house.

We recorded a number of achievements this year that make me particularly proud:

we reclaimed our leadership position in the industry in fine fragrance through organic growth; with an industry-leading score of 99A, we confirmed our leadership in sustainability and environmental management by joining this year's CDP Supplier Climate Performance Leadership Index (SCPLI), comprising the world's top 121 suppliers in GHG emission management; we recorded the most dynamic growth in the industry in body and home care; we made great strides in the area of health and nutrition, working in partnership with our customers; and have seen Clearwooda, our very first ingredient from our white biotechnology platform, blossom, as it has been broadly adopted across the creation palette of many perfumery houses. My responsibility today is to build on this legacy of excellence and take it to its next level.

After more than 20 years managing businesses across four continents, and with an in-depth understanding of the opportunities and challenges faced by consumer goods companies around the world today, it feels like the right place and the right time for me to be dedicating my experience to best serve Firmenich, our customers and all our stakeholders.

The world population is expected to rise to 8 billion by 2025 and, by then, we expect more than 4 billion middle-class consumers. While this rise of emerging consumers will open opportunities for business, it also poses a massive sustainability challenge, as it will put pressure on the world's natural resources. At Firmenich, we look forward to partnering with our customers and suppliers to manage this market evolution in the most responsible and sustainable way possible. To do this, we will be putting our innovation to work,

My responsibility today is to build on this legacy of excellence and take it to its next level.

driving sustainability across everything we do, and nurturing diversity and a global mindset across the company to fully master the cultural diversity this entails.

My vision is for Firmenich to be the most aspirational fragrance and flavor creation house in the industry for our customers, our partners and for all the talent we work with. For me, it starts by nurturing what makes us unique and has always been central to our success. Simply put, what sets us apart is how much we care. I summarize it with four Cs: we care for our customers, our colleagues, our communities and of course our creativity, at the heart of everything we do. Because what we do is more than a business; we are a family, with a legacy.

The Trends Driving Growth

First of all, we are customer-led. Our growth is driven by partnering with our customers to best address their needs and challenges with innovative solutions that enable them to maximize value creation and delight their consumers.

That's why we place our strategic focus and expand our footprint where it matters most to our customers. For instance, I recently appointed a member of my executive team as president of China, based in Shanghai, to lead our integrated business strategy in this key market in order to ensure we unlock its full potential.

Second, at the core of our strategy and DNA is our deep commitment to world-class research. Firmenich was founded by a scientist, Philippe Chuit, 120 years ago. Since then, we have kept his spirit of pioneering science alive through the consistent investment of 10% of our turnover in research. To drive our scientific excellence into its next phase of development, we welcomed Professor Geneviève Berger as our chief research officer, effective July 1, 2015.

Geneviève brings to Firmenich an exceptional multidisciplinary background as she holds three doctorates, in physics, human biology and medicine. Her broad experience ranges from conducting research to improve the well-being of consumers with Unilever to practicing medicine. She also

^aClearwood is a trademark of Firmenich.

(Continued on Page 28)

(Continued from Page 26)

has led one of the world's largest research organizations, the Centre National de Recherche Scientifique (CNRS) in France, as well as advised the European Commission and the French Government across a range of topics including biotech, agrifood and health.

With Geneviève, we look forward to raising the bar in the contributions made by research to our business success, by maximizing our focus in the areas of greatest potential for our customers and their consumers.

We put our innovation to work to bring moments of happiness and well-being to consumers through unique fragrance and taste experiences. We make this happen thanks to the talent and intuition of our creators coupled with our undisputed leadership in ingredients, with the finest and most innovative palette of the industry. Also, we focus on bringing these experiences to consumers where and when they want them, thanks to our leading delivery technologies which offer greater bloom and long-lastingness and many more benefits going forward.

Furthermore, we are advancing our science to tackle some of the world's greatest challenges such as hygiene and sanitation and health and nutrition. About 2.5 billion people globally are without access to adequate sanitation today. Eighty thousand children die every year from diarrhea caused by unsafe water, poor sanitation and lack of hygiene. We are working hand-in-hand with our customers, as well as foundations and NGOs, to address this challenge by reinventing the toilet experience and in particular developing cutting-edge molecules to counter malodor.

Health and nutrition is another key opportunity for us. It is estimated that global healthcare costs could rise to between \$5–10 trillion by the end of the decade due to obesity and other diet-related diseases. We believe there is an important role for flavor companies to play in helping to improve the nutritional profiles of food and beverages in today's world and we are focusing our innovation efforts in this area. For instance, through our taste modulation platform, we are developing technologies that enable our customers to restore the flavor profiles in foods and beverages with reduced sugar, salt or fat.

Responsible sourcing is also an area of strategic focus for us as consumer preference is shifting toward responsible consumption, and products labelled as natural or "fair-trade." Our responsible sourcing strategy ranges from backward integration to being part of shaping new industry standards and certifications. For instance, through our joint venture with Jasmine Concrete in India we have gained access to the finest flowers and spices in India while ensuring their sustainable production by being present at the very source of the raw material. Our master perfumers are highly involved in the selection process of our naturals and meet together in our center of excellence for naturals in Grasse to constantly evaluate new botanical qualities, never used before in perfumery.

Also, we seek to raise the bar in industry standards through responsible certifications. For instance, we are the first flavor house to have been certified by the Marine Stewardship Council (MSC) for our seafood flavors in Norway. Through a sophisticated process, we transform seafood by-products to create natural seafood extracts and flavors such as shrimp, lobster and crab, which are then used in soups, stocks or sauces. By minimizing by-products from the seafood industry and maximizing the value created from the marine resources, we help meet the market demand for seafood flavors without adding an extra burden on fish stocks.

We also work across our value chains through publicprivate partnerships to encourage good agricultural practices, engage in capacity-building and training to support the sustainable livelihoods of the communities we work with.

Our growth model is also based on a more agile and competitive Firmenich aiming to unlock our full potential. We are operating in an environment of almost unprecedented volatility and complexity with growing economic and geopolitical uncertainty. That's why it is key for us to focus on organizational agility by reducing complexity and delivering greater efficiency. Finally, to meet our growth ambition it is a key priority for me that we invest in our colleagues. It is their talent that ultimately makes the difference. It's thanks to our colleagues' expertise and passion around the world that we excel in creativity, innovation and sustainability as well as deliver and execute with excellence. I, personally, am a strong believer in the power of people. It is people who build companies and legacies, not the other way around. That's why, as a company, we are determined to ensure that we support our colleagues to be the best they can be, by fulfilling their professional aspirations and reaching their full potential with Firmenich.

p&f





New York 2014 sales: \$3,088.5 million Estimated market share: 12.4% Chairman and CEO: Andreas Fibig

As IFF turned 125, Andreas Fibig assumed the role of CEO and chairman.

"IFF made it 125 years ... and it's now up to us ... to make sure that we leave this company in a stronger position for the decades to come," Fibig told $P \psi F$ in January.

In the last year the company has focused on expanding its business and capabilities and boosting sustainability initiatives.

Acquisition & Expansion

The company, which saw its 2014 results boosted by the January 2014 acquisition of ingredients producer Aromor, recently announced that it was acquiring Henry H. Ottens Manufacturing Co. Inc. (Philadelphia). Ottens is expected to add about \$60 million in revenue to IFF each year and will operate as a separate company until the close of the transaction. Financial terms were not disclosed.

"Once completed, the deal will strengthen our operations in North America and enhance our ability to meet the needs of our customers through a differentiated service model geared towards enhancing collaboration and building greater customer intimacy," said Matthias Haeni, IFF's group president, flavors, upon the deal's announcement.

IFF has also made investments to capture growth in fastemerging markets in order to deliver global expertise to local customers to support authentic and innovative solutions.

For example, the company expanded its flavors facility in Isando, South Africa, in order to serve an expanded customer base in the rapidly growing Sub-Saharan Africa region. The company previously expanded its facility, located near Johannesburg and adjacent to IFF's existing manufacturing



IFF recently opened its Chicago office.



Andreas Fibig

plant, which more than doubled IFF's creative capabilities in South Africa. The expansion included flavor creation, application and sensory laboratories, and a pilot plant. IFF's total footprint in South Africa is approximately 30,000-sq-m.

IFF also opened a creative facility in Jakarta, Indonesia, and a sales office and applications laboratories in Santiago, Chile. The new flavors creative center in Jakarta is located on an existing IFF site, which was rebuilt to double its footprint to 1,500-sq-m. (IFF previously expanded its Indonesian flavor activities in 2013.) Primarily serving customers in Indonesia, the building incorporates systems that support sustainability, including heat, water- and emission-management systems. IFF's Santiago flavor site, the first in Chile, covers about 300-sq-m. The facility comprises sales offices and applications laboratories.

In the United States, IFF has opened a new flavors facility in Schaumburg, Illinois, serving the food and beverage industry located in the greater Chicago area. The facility houses a culinary center and application and flavor creation laboratories. It increases IFF's application and technical footprint and is staffed with culinary, flavor and product application teams closely linked to IFF's regional and global R&D sites.

Sustainability Focus

IFF has spent the last year boosting its sustainability initiatives. For instance, it has received a Leadership in Energy and Environmental Design (LEED) Silver certification for its new flavors creative center in Jakarta, which opened in late 2014. The LEED certification is broad in scope and acknowledges a facility's water and energy efficiency, use of materials and resources, innovation in design and indoor air quality.

Meanwhile, IFF-LMR Naturals achieved the IMO (Institute for Marketecology) For Life Social Responsibility certification in recognition of the company's sustainability commitments. Factors that impact certification include environmental responsibility, fair working conditions, transparency and community relations. In addition to LMR receiving this certification, its

(Continued on Page 34)

(Continued from Page 30)

agricultural and processing partner in Isparta, Turkey, received For Life certification relating to LMR's Turkish rose supply chain. For Life certification confirms that LMR and its partner in Turkey are committed to acting as responsible employers and promoters of sustainable practices.

IFF has been identified as a leader in Climate Change Reporting and will be included in the Climate Disclosure Leadership Index (CDLI) compiled by the CDP (formerly known as the Carbon Disclosure Project).

In addition, IFF scored 97 out of 100 in carbon disclosure and was rated A- in performance. Companies with the top scores for disclosure qualify to be listed in the Climate Disclosure

Leadership Index (CDLI) for their sample group, which is based on market capitalization.

Finally, IFF unveiled its photovoltaic solar installation at its Hazlet, New Jersey, facility, supporting the company's clean and renewable energy goals as part of its overall sustainability strategy. The 4,000 kilowatt solar installation has more than 16,000 modules and approximately 1 million solar cells covering 20 acres of IFF property. The clean energy generated is projected to reduce the site's carbon dioxide emissions by approximately 3,200 metric tons annually and prevent greenhouse gas emissions equivalent to planting approximately 2,600 acres of trees a year.

354



Holzminden, Germany 2014 sales: €2,120.1 million/\$2,818.0 million Estimated market share: 11.3%

CEO: Heinz-Jürgen Bertram



First Person: Heinz-Jürgen Bertram

Symrise has expanded and differentiated its portfolio into segments adjacent and complementary to flavors and fragrances in recent years, says Symrise CEO Heinz-Jürgen Bertram. Today, the company works in categories as diverse as flavors, fragrances, baby food, pet food, cosmetic ingredients and probiotics,

"Looking forward, the vision will be utilizing the broad palette of additional and different competencies which we have in the company now, which make us unique and different," he explains.

Leveraging New Expertise

The company will develop new capabilities, technologies and products using these additional resources. Bertram highlights the company's immune health probiotics expertise, which it began building with its acquisition of Probi. The capabilities can be applied to segments including oral care, food, beverage, dietary supplements and pharmaceuticals.

The probiotic expertise will also benefit the company's cosmetic actives business by leveraging the technology for skin care products. Meanwhile, Symrise's Diana acquisition has boosted its expertise in phytoactives, in addition to competencies in food, pet food, nutraceuticals and aquaculture. At the same time, the company has initiated the sustainable development of natural cosmetic ingredients in a



Heinz-Jürgen Bertram

partnership with Natura Cosmetics at the Ecoparque, located in the northern Amazon.

"The cosmetic ingredient market has been developing nicely," says Bertram. "There is still some degree of fragmentation ongoing, although the major players have formed already and we're happy to say we're one of them. We expect the trend of even stronger growth rates in the cosmetic ingredient market to continue."

Meanwhile, sustainability and natural offerings will remain critical across categories as consumer demand rises.

"We see these trends outgrowing the market," explains Bertram. "In flavors, the trend toward naturalness is increasing in all areas in Europe as well as North America, Latin America and Asia. We see a similar trend, although on a lower level, in fragrance."

This emphasis will drive the development of what Bertram calls "clean products" that employ green and white chemistry to improve safety and ecological impacts. This includes biotechnology and high-efficiency catalysis systems that eliminate waste products.

"Consolidation will continue. I see that as a clear trend."

Emerging Markets

"For us, the picture has not changed," says Bertram regarding emerging markets. "They will continue to grow in the long term faster than mature markets simply because the population growth is in the emerging markets." He adds, however, "The countries that had the very strong momentum yesterday are falling a little bit back today. But others are stepping in. Overall, the picture for emerging markets has not changed. We will continue to focus on emerging markets and put our efforts into expanding the business [there]. However, the focus on certain individual countries may change because of short-term problems.

Looking Ahead

"Consolidation will continue," says Bertram. "I see that as a clear trend. And we want to play a clear, active part in this process. We've clearly shown that with how we act in the market. We will find our opportunities and address



the customers' needs for tomorrow by using our enlarged portfolio of competencies and combining these competencies in new and surprising ways."

Meanwhile, the company will continue to capture growth driven by population expansions in emerging markets, as well as rising urbanization. At the same time, Bertram sees ongoing pricing pressure for producers of flavors, fragrances and related products, requiring companies to develop cost efficiencies.



TAKASAGO

Tokyo

2014 estimated sales: ~ ¥131,055 million/\$1,241.5 million

Estimated market share: 5%

President and CEO: Satoshi Masumura

First Person: Satoshi Masumura



Satoshi Masumura

Vision for the Future

As the 100th anniversary of our foundation in 2020 draws closer, Takasago continues to maintain and progress toward our long-term vision of becoming a world-class flavor and fragrance company. This vision is embodied in our "New Takasago Global Plan," which enters its third phase this fiscal year with a three-year mediumterm management plan for

2015–2017 (GP-3). In order to realize our vision of dramatic growth by 2020, we will take the necessary measures to significantly strengthen our financial standing.

We will then begin GP-3 with a focus on increased departmental efficiency and improved profitability in order to address issues that have remained from the previous medium-term plans.

As part of Takasago's BCP, we are also investing over 10 billion yen in Takasago West Japan Co. Ltd., a factory located in Hiroshima that is scheduled to begin operations in six months' time.

To be a true global player, Takasago also needs to continue to strengthen our presence, capacities and capabilities in the different regions of the world. It is with this purpose in mind that we are carrying out large-scale infrastructure investments in the Americas, Europe and Asia to meet our aggressive growth targets.

In North America, Takasago USA opened a new production facility in Harriman, New York. All fragrance products for the U.S. market will be supplied from this site. This new site's state-of-the-art capabilities include automated liquid compounding and inventory control systems.

In Latin America, we expanded our facilities in Mexico to enhance our flavor and fragrance R&D and production capabilities.

In Europe, we have invested over 5 billion yen in a facility expansion in Germany which is currently underway.

In Asia, we recently completed the construction of a new facility in Singapore, while the construction of a new facility in India continues. These will dramatically increase not only



We are carrying out large-scale infrastructure investments in the Americas, Europe and Asia to meet our aggressive growth targets.

our production capacities in the region but also significantly enhance our customer support capabilities as well.

As our business in China continues to grow, we will forge ahead with plans to further expand our capabilities and capacities. We will further strengthen our BCP systems in China by widening the scope and capability of our other locations in China, like Takasago Guangzhou.

We will additionally be making significant investments in countries such as Indonesia and Myanmar in order to increase our capabilities in these countries which are experiencing remarkable economic growth.

We remain committed to this global-scale reinforcement of capacities, capabilities and resources in order to achieve the rapid growth that we seek.

Trends Driving Growth

Similar to the global economy, the markets of Europe, the United States and Japan have reached maturity and we can no longer anticipate significant growth from these markets. In comparison, the markets of developing nations are expanding and have more potential for substantial growth. Hence, Takasago has made it a point to reinforce our operating bases in these countries.

(Continued on Page 38)

(Continued from Page 36)

The flavor and fragrance markets of Indonesia, Vietnam and other regions of Southeast Asia have maintained remarkable growth rates as the economies of these countries continue to grow. In these markets, Takasago has consistently delivered higher-than-market growth rates. In order to maintain this higher-than-market growth rate and firmly establish our presence in the ASEAN market for the medium-to-long-term, Takasago has expanded investment in production and R&D capabilities in Singapore.

In India, Takasago has started construction of a production and R&D facility in Chennai (Tamil Nadu). We expect to begin operations in this facility early next year. We expect high rates of growth in the Indian flavor and fragrance markets as well, particularly for the cosmetics and toiletry and beverage and confectionary segments of the market. With the completion of this facility, we will significantly enhance our creation, application and R&D capabilities to ensure that we can meet the needs of both local and global target accounts.

New Technologies and Trends Influencing Innovation

In line with our corporate philosophy, "Contributing to society through technology," Takasago's vision for 2020 also includes the (further) continued pursuit of originality and superiority in our technology and product development processes. We will continue to use these technologies to create flavors and fragrances that deliver the product differentiation and high consumer acceptance to ensure the success of our global and local business partners in Europe, the Americas, Japan, the rest of Asia and other developing countries.

One current trend in the flavor and fragrance market is capsule technology. Takasago is utilizing our global consumer insight capabilities and network to fully understand the market needs for capsule technology to improve on the focus and speed of our R&D efforts.

Takasago views the development of new and innovative materials as vital to our flavor and fragrance business. It is with this understanding that we will continue to place significant emphasis on the development of aroma chemicals, natural chemicals and functional materials for flavors and fragrances.

Industry Evolution

Although it often appears that consumer needs and customer needs are moving in the same direction, we must recognize the diversity of consumers' and customers' needs and respond to each individual requirement. In addition, in the era of expanding globalization, the speed at which decisions are made continues to gain pace. Our task is to provide on-target products while keeping pace with the speed of the market.

Future Macro Trends

In addition to current market needs for natural, health and well-being-oriented products for the global market and high-impact profiles and highly stable flavor and fragrance products in the emerging markets, we expect to see a dramatic increase in the demand for environmentally friendly, or green, products. This will definitely drive further development of green aroma chemicals, bio-chemicals and natural chemicals in response to this ever-increasing consumer demand for green chemistry and green procurement. In anticipation of these trends, Takasago, through our operations in Indonesia and Madagascar, will continue to develop our capabilities in natural extracts and chemicals such as vanilla and patchouli. We will also be allocating even more resources into marketing and CIMR in order to drive and focus our efforts in this area to ensure that our activities and efforts continue to remain relevant to the diverse market preferences and needs of both the local and global markets.

Industry

6 Wild Flavors and Specialty Ingredients

2014 estimated sales: ~€934 million/\$1,241.3 million

Estimated market share: 5% President: Greg Morris

In one of the biggest moves of the last year, Archer Daniels Midland Co. (ADM; Decatur, Illinois) acquired Wild Flavors GmbH in July 2014, boosting its innovation and beverage capabilities. The all-cash transaction was valued at about €2.3 billion. The company was then renamed Wild Flavors and Specialty Ingredients.

As a standalone company, Wild Flavors had more than 3,000 customers worldwide and estimated 2014 net revenues of about €1 billion. ADM's ambition has been to expand the scope of the business with nimble emerging customers and global CPG houses, while incorporating complementary adjacent capabilities in food and wellness ingredients and texturants. This occurred when ADM purchased Specialty Commodities Inc. (SCI)—an originator, processor and distributor of nuts, fruits, seeds, legumes and ancient grains such as chia, quinoa and amaranth—for \$2.9 billion. SCI boasted "a global network of suppliers to source natural and organic ingredients and distribute them to

customers in the snack, ice cream, cereal, nutrition bar, health food, bakery, pet food and bird food markets," according to an official announcement.

The goal of the competency escalation has been to provide customers with "complete food solutions." In addition, the company noted, "The acquisition will meet our return objectives, with estimated cost and revenue synergies of €100 million by year three."

Finally, in November of last year ADM sought to place more products under the Archer Daniels Midland Company (ADM)/Wild operations by partnering with Burcon NutraScience Corp. to facilitate the manufacture and marketing of Clarisoy in the global food and beverage market. ADM is operating the world's first Clarisoy semi-works plant to produce samples of the soy protein line for market development purposes. The move fit well with the growing portfolio of specialty proteins, including lecithin, edible beans and fiber.

Mane

Le Bar-sur-Loup, France 2014 sales: €769 million/\$1,022.1 million Estimated market share: 4.1%

President and CEO: Jean Mane



In 2014, Mane passed an important milestone as the group's consolidated sales exceeded the significant billion-dollar threshold. It posted revenue gains of 6.5% from the previous year in euros and U.S. dollars, up to $\[mathbb{\in}\]$ 769.9 million from $\[mathbb{\in}\]$ 723.2 million, and up to \$1.022 billion from \$960.7 million, respectively. Without the negative impact of exchange rates, revenue would have increased 9.5%.

With an aggregated growth rate of more than 10% annually, Mane has almost doubled its turnover in five years amid

a profitable, sustainable strategy. In 2014, it strengthened its footprint in technology compounds in Europe for the meat-processing industry by acquiring Cargill's texturizing solutions business. On the ingredients side, Mane acquired a majority stake in Kancor, a major food and beverage ingredients provider in India and long-term supplier of Mane, in order to bring increased control of the sourcing of essential oils, extracts, spices and mint ingredients, as well as cosmetic actives, to further secure their quality and traceability.

First Person: Jean Mane



Jean Mane (Photo credit: David Morganti)

On Research, R&D and Green Chemistry

We are maintaining a high level of investment into research and R&D. By continuously supporting fundamental research, especially in organic chemistry and biotechnology, and the development of technology platforms such as encapsulation to design efficient and cost-effective delivery systems, we continue to enrich our capabilities for

innovative fragrance and flavor solutions. Since we believe that designing consumer-preferred flavors and fragrances starts with distinctive and qualitative raw materials, we have integrated basic research programs to screen both synthetic and natural routes for new molecules to contribute to the uniqueness of our flavor or fragrance profiles. In doing so, we gear our efforts toward programs that take into account the principles of green chemistry and use biotechnology to synthesize natural molecules, because taking care of the environment is at the heart of our concerns.

On Markets: Western Europe and North America

This year, the more mature markets of Western Europe and North America have performed very strongly and, along with Africa, have offered the largest opportunities for new business development that has been strongest with selective partners among our customers. Our R&D specialists have

We gear our efforts toward programs that take into account the principles of green chemistry and use biotechnology to synthesize natural molecules, because taking care of the environment is at the heart of our concerns.

—Jean Mane

put their expertise at our partners' service to capture local taste and deepen our understanding of consumption habits, from creation to application; including consumer insight ... Mane continues to add to its extensive network of more than 60 sites that include 42 R&D centers and 25 production sites in more than 30 countries. Over the past two years, we have made significant investments to further increase our global presence with the addition or expansion of our research and development capabilities, including dedicated facilities for consumer insight and sensory research, as well as our production capacity in strategic markets.

In the [United States], we celebrated the second anniversary of the opening of our flavors R&D center in Ohio, which serves the North American market, and continue to invest in growing our production capacity through the expansion of our powder production site, as well as the addition of a liquid flavors production site in Woodlawn (Ohio).

Finally, we have completed, a little over two years after it began, the construction of our Mane SA [facility] in Switzerland. Operational since July 2014, these state-of-the-art research and development facilities were set up in

Vouvry to be consistent with the family company's will to come closer to its Swiss-based customers. Dedicated to flavors, the R&D activities in the Mane [facility] are organized around the sweet and savory application laboratories, fitted with the necessary equipment to prepare all types of applications to incorporate and evaluate flavors in finished products. These facilities, combined with the know-how of our team of technicians, allow them to reproduce the manufacturing parameters of finished products, from taste to visual aspect and texture, which will be analyzed by a team of experts including food-processing engineers, flavorists as well as trained internal and external tasting panelists. The professional kitchen, which is the cornerstone of these new facilities, enables the Mane culinary chef to express his full creativity and design personalized solutions for each brand or each product to professionals of the food-processing industry. The Vouvry R&D center is also equipped with a technology hall offering a variable layout since it can host various pilot-scale manufacturing machines to replicate as truthfully as possible the production processes of the leaders of the food industry.

On China

In China, the construction of the second phase of our Shanghai plant, completed in 2013 and which effectively tripled the size of our research and development facilities as well as manufacturing capabilities, is now fully operational to service the domestic market, as well as the neighboring markets. Our Mane Korea and Mane Taiwan teams have also moved to new and enlarged offices for increased functionality.

On Global Growth in Flavors

Growth has been fastest this year throughout our flavors division, which now accounts for 56% of our group [revenue]. We have been consolidating our positions at major food-processing industrials thanks to our ability to design, under the Sense Capture^b umbrella brand, flavor solutions addressing the taste challenges of today's food and drink industry such as salt reduction and sweetness modulation systems. Our cost-effective natural flavors solutions have met success in both emerging and mature markets while the addition of the Rubí plant and capabilities to our meat [facility], specializing in functional and aromatic solutions for the meat processing industry in France, complemented and strengthened Mane's expertise in the domain to become a European leader in the sector.

On Fragrance Operations

Our fragrance division has also kept up a strong performance, totaling 38% of our [revenue]. Our commitment

to broadening consumer understanding has enabled our teams to develop performing as well as preferred fragrances for consumer goods, while our efforts to develop olfactive signatures fitting our customers' brand identity has enabled us to reach strategic supplier status at major personal care companies. Our performance has been especially strong in the prestige segment, in which our strategy to become a creative challenger in the world of fine fragrances has enabled us to be associated with some major launches such as the roll-out of the creatively-acclaimed *Si* by Armani in the [United States] or the latest feminine fragrance from Viktor & Rolf called *Bonbon*.

On Raw Material Supply and Sustainability

Our continued pursuit of a sustainable supply of strategic raw materials to secure and, when possible, control or better vertically integrate their sourcing has led us to strengthen our position in Madagascar with our Floribis plantation partner and to engage in a tripartite agreement with the Fanamby NGO for a fully traceable sourcing from pollination to flavors. This commitment creates shared value for local growers of vanilla beans, providing an increased remuneration model, funds for the construction of a rice granary and biodiversity protection initiatives such as a reforestation program.

On Technology and the Digital Age

Mane has been active on the digital sphere with the successful launch of the Find Your Essence application, a digital experience inviting users to invent the fragrance of their dreams. In 2015, the Green Motion^c software tool to evaluate the environmental impact of products according to the 12 principles of green chemistry, will be further improved with the addition of a carbon renewability rating (*read more about Green Motion in* P&F's July 2014 issue).

On the Future

In 2015, we will continue to invest in expanding our activities and reach in growing segments and markets. In Mexico, we have recently inaugurated "El Culinarium," a new [facility] dedicated to savory applications. In Poland, our team has moved to new facilities that include expanded laboratory space for sweet and meat applications. In Brazil, our Sao Paulo team is moving to a new office building and, most importantly, new laboratories for our R&D staff. In Indonesia, our new R&D center and manufacturing site currently under construction in the Jakarta area will be operational by the end of the year.

p&f

^cGreen Motion is a trademark of Mane.

^bSense Capture is a trademark of Mane.





Haifa, Israel 2014 sales: \$819.5 million **Estimated market share: 3.3%** Chairman and CEO: Ori Yehudai

Continuing with its growth push, Frutarom completed six acquisitions in 2013 and 2014 (JannDeRee in South Africa; PTI in Russia; Aroma in Guatemala; U.S.-based Hagelin, which also has sales in Africa and Latin America; CitraSource in the United States: and Montana Food in Peru and Chile), which will contribute toward accelerating growth. Frutarom expects the main driver of sales in 2016 will be a healthier pipeline in its flavor business in some key markets, including the United States and Germany, a focus on key emerging markets, and growing market share where the company is underrepresented such as Asia (the company also has built a position in Latin America over the last couple of years). Emerging markets already make up 48% of Frutarom's overall sales, compared with 27% in 2010. Futarom's intention is to post at least \$1.5 billion dollars in sales by 2020.

"We have a good pipeline for future acquisitions," Ori Yehudai, the company's CEO, tells P & F. As a mid-sized player, Frutarom tries to focus more on the mid-sized customers operating within the natural taste and health ingredients space.

Speaking on the industry, Yehudai says: "I believe that we are lucky to be part of this fascinating [flavor and fragrance] industry; on the other hand, it's getting tougher. Doing business today is much tougher than doing business five or 10 years ago. The news is that it's not going to get any easier, and all of the competitors are getting better and better. The question is: How can you be better than the others?"

He continues: "I think that legislation and pressure both from authorities and the food industry's consumer groups for healthier foods are putting a lot of pressure on the flavor industry, [and] on the fine ingredient industry. We will have to invest more in the future in order to meet expectations, which I assume more smaller companies find more difficult." (Read more about this topic on Page 14). He continued, "We have [about] 10 times more people in legislation/regulation [at Frutarom] and so on, compared to what we had 10 years ago. And I think that this number will continue to go up because of the demand ... The [regulatory] expectations for the flavor industry are high, and they should be high, although there's a price to pay for that and I assume that for smaller companies it's getting really impossible."

Yehudai spoke further on several key topics with P & F in an exclusive interview:

P&F: What areas have been the main drivers for business of the past year?



Yehudai: At Frutarom we continue with the strategy that we believe is successful and suitable for a company like ourselves. We were able to achieve above-industry growth in most of the



Ori Yehudai

markets where we operate with internal growth of around 6% last year, excluding acquisitions and currency effects. We did a few acquisitions, acquisitions that continue to strengthen our position as one of the global fast-growing companies in our field. We continue to deal and to use the synergies between the activities that we acquired and those that we have with new customers, new products, new technologies and operational synergies. So all of these were the things in which we focused in 2015 and that we continue to focus on in 2016.

P&F: You have been on a big acquisition binge. Is that going to continue?

Yehudai: Absolutely; we have a good pipeline for future acquisitions. We already did four [acquisitions] since the beginning of last year. And I believe that we have a healthy pipeline going forward with a continued focus both on the United States and key emerging markets and on enlarging and deepening our position in the natural health ingredients.

P&F: Do you think natural health ingredients are going to be a leading focus, or is there another area?

Yehudai: I don't think it's the only focus. It's an area in which we started investing in more than 10 years ago. I believe that the consumer's wish is to have healthier food while not giving up taste. Natural flavor solutions, for example, [include] reduced sugar, salt and other ingredients. And on the other end, [the focus is on] dealing with natural health ingredients that enhance health and things like that. So I truly believe that this combination is working well for us.

P&F: Let's talk about the markets where you see growth and opportunities right now. Has the marketplace been tough?

Yehudai: There's a big problem; the problem is the [marketplace] is going to be tougher, not easier. That's the problem, but nobody promised us a rose garden. So we want to be successful and we want to continue to grow in tough markets, and we want

to continue building the right relationships and partnerships with our customers. We will continue to focus on those markets that are growing faster during the last four years in the way that Frutarom tripled its share of sales in emerging markets. At the same time, sales in the United States more than doubled. Our flavor sales in the [country] are now six times higher than where they were in 2010. Our intention for the next couple of years is again to double Frutarom's size. We see Frutarom in 2020 with at least \$1.5 billion in sales, while we continue to improve our margin and make a healthier product portfolio and improve our position. We are committed to do everything in order to grow above market.

P&F: So, you're saying emerging markets are a large part of your strategy over the next five years?

Yehudai: I would say [both] emerging markets and the [United States]. Frutarom was completely underrepresented in the U.S. market. Our U.S. business to date is around \$100 million out of \$820 million that we had in sales last year. We are committed at least to double [or more than double] our U.S. business. I'm a great believer in the U.S. market. I know it's not an easy market, but still the U.S. market is performing better than Western Europe and I think the American will continue to eat. I think this is also a direction Frutarom took with our product portfolio, and today around 70% of our business is with natural products; between flavors and natural health ingredients.

P&F: How has Frutarom dealt with the impact raw material costs?

Yehudai: Raw material costs over the last two years have been less of an issue compared to 2006–2008 and the middle of 2010–2013. We see, generally, that prices are more stable than before, even though of course we do see price increases in [some spices] like pepper, which went up through the roof. Generally, most of the products have been more stable in the last two years.

P*\psi***F**: What is the biggest challenge that the global flavor and fragrance industry faces right now?

Yehudai: I believe in many countries it's the growth. In Western Europe, you hardly see growth. Last year was the first year where we enjoyed growth in Western Europe, after three or four years. I believe that the market is getting more competitive. We see the results of some of the large global food companies that are not reporting exceptional results; and there are some others, I assume, that take market share. Frutarom, being a mid-sized player, is not necessarily focusing on the large global companies as a core supplier; while I believe our large competitors are doing much better, we try to focus more on the mid-sized and local players.

p&f

Sensient Technologies Corp.



Milwaukee/Hoffman Estates, Illinois 2014 sales: \$724.7 million^d Estimated market share: 2.9% Chairman and CEO: Paul Manning

P&F: What areas have been the main drivers for your business over the past year?

Manning: Sensient's strong 2014 performance was driven by continued execution by our color group and improved performance in our flavor business. We are increasing efficiencies and cutting costs in our flavor business, but we have also made great progress as we reposition the business with a focus on higher-value customer solutions.

P&F: What are the company's plans for major investments?

Manning: We are currently investing in our flavors business in order to improve efficiencies and streamline our manufacturing locations. This activity should be close to completion this year. After that, our focus will be on investments to drive growth, which could include acquisitions.

P*\psi***F**: In what region and what areas of the business are you are putting most of your focus right now?

Manning: Asia Pacific and Latin America are two important regions for Sensient as they offer significant opportunities for growth. Within our product groups, we are very excited about trends we see in natural colors and digital inks. The potential for growth across Sensient flavors is very good. We are in the midst of a business restructuring, which is a key management focus, and we are confident this business will be delivering impressive results over the next few years.

P&F: Which regions are your fastest-growing areas? Are emerging markets a large part of your strategy over the next five years?

Manning: Asia Pacific, Latin America, South Africa and parts of the Middle East all have good growth profiles. Over the last several years, we have taken steps to capitalize on opportunities



Paul Manning

Within our food and beverage businesses, Sensient's ability to identify and execute on our customers' formulation challenges will be very important. Customers want to exploit the consumer's desire for natural and healthy products.

—Paul Manning

in each of these markets. I anticipate that emerging markets will have a growing impact on our results based on the recent investments we have made.

P&**F**: What do you think will be the main driver for sales in 2016?

Manning: Continued execution in Asia and other emerging markets will drive our sales growth over the next year. In our more mature markets, such as Europe and North America, we have good exposure to a number of growth areas, including digital printing and cosmetic ingredients. Within our food and beverage businesses, Sensient's ability to identify and execute on our customers' formulation challenges will be very important. Customers want to exploit the consumer's desire for natural and healthy products. This often presents challenges for our customers that we can help solve.

P&**F**: How has your company dealt with the impact of raw material costs?

Manning: Sensient buys a wide range of raw materials, so no single item or category has had a significant impact on our results. Further, we have worked hard to develop and maintain a robust, multi-sourced supply chain. This helps us minimize the negative impacts of unfavorable

dAccording to Leffingwell: "In 2014, Sensient restated sales of 'traditional flavors & fragrances' and 'natural ingredients' as separate categories for 2012, 2013 and 2014; comparison to previously reported figures indicates that some of the so-called dehydrated products possibly should have been included in sales." Sensient had a transitional year with new CEO Paul Manning, the company's former president and COO, who took the helm in February 2014. Sensient initiated a restructuring plan in the first quarter of 2014 to eliminate underperforming operations, consolidate manufacturing facilities, and improve efficiencies within the company (which is part of a plan that began in 2013). P&F spoke with Paul Manning about the company's major investments as well as its outlook for the coming years.

exposures to a single source of supply. It also gives us a competitive advantage, as supply chain strength is something our customers are paying more attention to.

P&F: Do you expect prices to stabilize this year?

Manning: We don't have any reason to anticipate unusual volatility.

P\(\psi\)F: What, in your opinion, were the company's biggest successes this year?

Manning: Sensient has had a number of important successes in the past 12 months. First, the progress we have made on our flavor restructuring has been very good. The business is in a much better position than it was 12–18 months ago, not just in terms of costs, but also the strength of our product offering and product development capabilities. Second, we continue to strengthen talent levels and capabilities across the company. Your ability to compete in our markets comes down to people, and our position with regard to human capital is as strong as it has ever been. Third, the continued impressive performance delivered by our color group. The results this business generated in 2014 are a testament to the benefits of a strong operating and investment strategy as well as top-notch management and employees.

P&F: What, in your opinion, is the biggest challenge that the U.S. F&F industry faces right now?

Manning: Attractive opportunities for flavor and fragrance companies exist, but identifying and executing on them takes more skill than it ever has. Many large players within the food and beverage industry have become more conservative, so discovering the innovators and sources of product development takes greater skill and effort. There are a lot of flavor companies with good technical capabilities. The most successful companies will be those that are nimble, responsive, and best at identifying consumer trends and customer needs.





10 Robertet

Grasse, France 2014 sales: €390.1 million/\$518.4 million Estimated market share: 2.1% CEO: Philippe Maubert

Robertet, which has been in the natural ingredients business for more than 160 years and five generations, gains 45% of its sales from food aromas, 35% from perfumery and 20% from commodities. For 2014, the company's net consolidated sales of €390.1 million were up 3.4% on the strength of the second half of the year. Although 85% of its sales are generated outside of France, sales in North America were down. European sales were slightly positive, and Asia and Latin America progressed for the year. Over the past several years, the company has made extensive capital investments in its business around the globe as an ongoing part of its growth strategy. Its completed acquisitions in 2014 included a 50% ownership investment in Hitex

ROBERTET

and the creation of Robertet Bulgaria. Also in 2014, Robertet completed the renovation and move of its new U.S. fragrance and ingredient division headquarters to Mount Olive, New Jersey. The new facility represents a \$20-million-plus investment and provides the company with expanded capabilities across the board, including much greater capacity in fragrance production. In 2015, Robertet has opened a creation, evaluation and compounding facility in Singapore and a sales office in Moscow. Its newest sales and production facility in Bogota, Colombia, will help the company expand in the crucial Central and South American markets. Philipe Maubert tells P & F more about the company's outlook and markets.

First Person: Philippe Maubert



Philippe Maubert

On Change

Over the past year, we have been carefully reviewing our entire portfolio globally from both a geographic and a business perspective. As a result, we are making strategic internal business process changes, hiring highly experienced senior executives in supply chain, production, sales and general management roles, and opening

affiliates in new markets to help to streamline the business to become faster, more efficient, and better equipped to meet and surpass the needs of our clients.

We have been successful in the fragrance division due to our diversification in our overall business mix, both in the categories in which we play and also in our geographical reach. Our business is more heavily weighted in North America and Europe, but we are taking aggressive steps each year to strengthen the talent of our local teams, processes and creativity at our existing affiliates, while adding new affiliate locations around the world. For example, in the first half of 2015, we will be opening new locations in Moscow, Singapore and Bogota.

On Sustainability

Our current position as global leader in natural ingredients started generations ago with a sustainable and ethical approach that we value more than ever today. We have three main approaches to global sourcing: our fully owned local

factories and fields, production partnerships at the source and long-term sourcing agreements with farmers. We are constantly evaluating our ingredient portfolio and making key acquisitions to ensure delivery of the widest variety of natural botanicals around the globe. Robertet is committed to protecting the environment globally and supporting the local communities in which we source our naturals.

On Health and Wellness and Citrus

Health and wellness solutions will continue to drive flavor innovation for the foreseeable future. The flavor division has been focusing on several strategic technical platforms to address these challenges and drive growth. The flavor modulation technical platform is based on Robertet's natural expertise. The Essential Balance^e brand addresses various aspects, including sweetness profile optimization, masking of off notes and enhancing mouthfeel. Several other delivery systems are being designed to address other food and beverage technical challenges.

In addition to these technical focuses, we continue to strengthen our global position in the citrus category. Several strategic partnerships, combined with internal R&D initiatives, are yielding valuable unique proprietary citrus fractions. These fractions enable our creative teams to design superior consumer-preferred citrus profiles.

On Raw Material Costs

Naturals have always maintained a primary role in Robertet's portfolio—more so than in most other flavor and fragrance companies. As this has always been the most volatile category in terms of potential market swings, we've grown

eEssential Balance is a trademark of Robertet

accustomed to managing this part of our business and routinely take advanced positions and support growers at the source whenever possible. Over the years, an increased level of volatility has now extended to other ingredient categories commonly used within our industry. It's fortunate that our historical experience has enabled us to understand and react quickly to these developments, and we feel we've done a tremendous job at Robertet in mitigating these market swings to the benefit of our clients.

We believe that all markets need to be continuously monitored and managed as closely as possible. Most raw materials used in the production of flavors and fragrances can be considered specialties with a limited number of manufacturers and producers. As our industry grows internationally, it will be a continuous challenge for some of these markets to keep pace with the expected global demand. When you consider those factors along with fairly volatile currency exchange rates it can be argued that stability is pretty much a thing of the past.

On Naturals

At Robertet we continue to invest a large portion of our global R&D budget in naturals. Due to our long heritage in natural ingredients, we can provide our fragrance, flavor and ingredient clients with the best exclusive naturals sourced sustainably from around the globe. Our Nature Spectrumf technology provides our clients with the widest portfolio of ingredients expertly transformed by our perfumers to delivery new olfactive profiles.

On Focus Areas and R&D

As we have said in years past, at Robertet we are careful to ensure that our well-established business in the mature markets throughout North America and Europe are growing year-on-year. In these markets, we are fine-tuning our business and enhancing our core capabilities. We are always looking for new and better ways to service our clients in an increasingly more challenging marketplace. We realize that for our clients, consumer habits are changing more rapidly now than ever before. Our goal is to remain and excel at being a trusted partner who can help them navigate this environment with innovative solutions that are ready to be commercialized.

For example, in addition to strengthening our global purchasing and supply chain efforts, we are also investing in R&D and innovation both internally and through strategic partnerships. We recently announced a partnership with Ginkgo Bioworks, a technology company based in Boston, Massachusetts, that is focused on bioengineering flavor and scent molecules. We believe that fermentation science has huge potential for our industry.

In terms of talent, we are hiring seasoned executives and senior creative perfumers and flavorists to take us to the next level of excellence. We are targeting the Middle East and adding to staff in these countries and are looking ahead to Africa and taking steps to build our business in both the north and the south parts of the continent.

On Emerging Markets

We are continuing to invest in emerging markets; they represent the fastest growing areas in fragrance and a huge opportunity for us in flavors. For the ingredients side of the business, we are tapping deeper into the clients and brands that seek and value naturals around the world.

Robertet is opening a new R&D innovation center in China, which will be the third largest research facility in our portfolio. One of the key goals will be to gain a deeper understanding of differing consumer preferences in scent and taste throughout the Asia region.

Our "Seed to Scent⁹" technology platform communicates our values, our heritage and our strength in naturals to clients globally across all areas of our business. To date, we have developed several successful Seed to Scent programs highlighting some of our key ingredient specialties, with the last effort focused on the Indulleida peach from Spain for our flavors division.

On Business Growth

We announced in 2014 that on the ingredients side of the business we made two new acquisitions. The first was a 50% ownership investment in Hitex, a Brittany, France-based company which specializes in supercritical CO₂ extraction of active ingredients for perfumed, cosmetic and aromatic products. The second was the creation of Robertet Bulgaria through the acquisition of a production which manufactures both rose and lavender. As mentioned earlier, in the first half of 2015 we will be opening new locations in Moscow, Singapore and Bogota. Looking ahead over the next five years, we expect to add more affiliates in strategic locations that best address the needs of our business and our clients.

On Fragrance Sales in 2015

Achieving rapid growth in the fine fragrance category continues to be an industry-wide challenge as consumers in mature markets trade off their share of wallet to other product categories. At Robertet, we have seen that successful niche and artisanal brands that invest in high-quality naturals in their formulations have had a very positive halo effect on the market as a whole with trickle down implications for other brands and product categories. Other major brand players such as Estée Lauder have noticed as well, with their recent acquisitions of Le Labo and Frederic Malle, among others.

On the consumer goods side of the business, we are focusing on helping the consumer enjoy everyday experiences while interacting with our clients' products. As a result, we continue to invest in constantly improving our encapsulation technologies for fragrance retention and longevity on fabrics and other surfaces, malodor counteraction technologies and more. And with health and wellness concerns growing around the globe, we are finding new solutions for household products with safe and natural antibacterial ingredients. Both the consumer and our industry are changing very quickly, and Robertet is committed to remaining a dynamic, creative and highly responsive flavor, fragrance and ingredient supplier.

gSeed to Scent is a trademark of Robertet.

T. Hasegawa

Tokyo

2014 sales: ¥44,917 million/\$425.5 million

Estimated market share: 1.7%

President and COO: Takahiko Kondo

T. Hasegawa's subsidiaries in China and the United States achieved growth on a local currency basis in 2014, which somewhat counteracted a slight decline in Japan. Sales at the company's subsidiary in China jumped 23.2%, driven by an increased demand for beverage products and favorable sales of fragrances mainly due to local customers.

The U.S.-based subsidiary also increased its sales by 15.5%, with contribution of newly launched products from their existing and new customers. Although overseas subsidiaries increased their sales, it was not enough to cover the sales decline of T. Hasegawa Japan's non-consolidated sales, which led to a small decrease in consolidated sales. Full-year 2014 consolidated net sales fell by 0.4% from a year earlier. Sales of T. Hasegawa Japan (non-consolidated) decreased by 4.5% due to a sales decrease in tea extracts and fruit preparations.

P & F recently spoke with Takahiko Kondo about what is ahead for the company's domestic and international markets.

P &F: In what region and what areas of the business are you are putting most of your focus right now?

Kondo: The Japanese domestic market is maturing as a result of the aging population so we cannot expect rapid growth in Japan. The Japan[ese] market is the foundation of our business, accounting for about 70% of all T. Hasegawa group sales. We promote solutions-based sales initiatives to increase the winning percentage of our customers' projects. It is also necessary for us to proactively provide items which have the additional functions such as replacers for natural ingredients, antioxidant materials, taste flavors, etc., in order to provide solutions for our customers' diversified and advanced demands and become a reliable supply partner. Also, new applications for flavors such as nutritional food, food for medical use and non-alcohol beer/cocktails have the potential to increase demand for flavors. We need to capture those demands to make steady sales and profits in Japan.

While maintaining our revenue base of the Japan domestic market, it is essential for us to grow in the overseas market. There, the Asian market, especially China, is our main focus. In China, consumers' preferences vary among regions, so it is necessary for the R&D staff to capture those differences. Therefore, we need to hire and train local R&D staff who understand different regional preferences. By combining this with the technology we have been developing in Japan, we strive to increase market share for existing customers and to cultivate new customers. As part of this effort, we localized management

1. T.HASEGAWA CO.,LTD.



Takahiko Kondo

While maintaining our revenue base of the Japan domestic market, it is essential for us to grow in the overseas market. There, the Asian market, especially China, is our main focus.

—Takahiko Kondo

of our Chinese subsidiary, and the building of our new R&D facility in Shanghai to enhance R&D capabilities will be completed in early 2017. With these efforts, we intend to expand our sales in the coming years.

P&**F**: Which regions are your fastest-growing areas? Are emerging markets a large part of your strategy over the next five years?

Kondo: China is the fastest-growing region. Market for beverages and instant noodles remain in growth mode, which should result in an increased demand for flavors. Long term, further increase in flavor demand is expected along with increased demand for processed food in the inland areas of China as living standards in those areas become higher (current sales in China are mainly in coastal areas). We will capture those consumers' preferences to achieve further growth in China.

Southeast Asia is another market we are putting focus on in addition to China and the U.S./North America, since demand for flavors is high, with beverages and snack food accounting for a large proportion of the market. We have been exporting our products to Southeast Asia from Japan, which put us in a difficult position in terms of price competitiveness in that region. But we expect to be more competitive as a result of our acquisition

(Continued on Page 50)

of a Malaysian company, Peresscol, in October 2014 as our manufacturing base in Southeast Asia. This acquisition will also result in shorter lead-time to supply our products and respond to our customer needs in a timely manner. Peresscol also has the advantage of their seasoning powders being halal certified, which is the very important element to increase sales in Southeast Asia.

Since the acquisition of Peresscol was completed only recently, for the time being, the parent company (T. Hasegawa) will take initiative in Southeast Asia with collaboration between subsidiaries in Thailand, Indonesia and Malaysia. We are aiming for the growth in this region through initiatives such as developing flavors that capture the preference of local consumers and sales calls with R&D staff. Emerging markets, especially in Asia, are expected to keep contributing to our business growth.

P*\&***F**: Does the company plan on any further major investments in flavor or fragrance?

Kondo: In China, since demand for flavors is expected to grow, the second phase of the capital investment of the Suzhou plant is underway to enhance the production capacity. It is to start operation in June 2015. We are also planning to build the new R&D facility in Shanghai (within the premises of our existing subsidiary in Shanghai) to enhance our R&D capabilities. It is due to begin operation in early 2017.

P&F: How do you plan to grow the business in the coming years? Any acquisitions or new markets?

Kondo: Our subsidiary in the [United States] has been successful by focusing on the savory flavor categories. To achieve further growth, we are expanding focus to the beverage market under the leadership of our CEO who joined T. Hasegawa USA in April 2012. In addition, we completed renovation and expansion of the R&D facility of T. Hasegawa USA in June 2014 to enhance the R&D capabilities for our customers.

Although the beverage flavor market in the [United States] is led by top global flavor companies, we have an opportunity to have our flavors used extensively in the rapidly-growing U.S. domestic beverage market with a focus on coffee and tea flavors. We are currently putting greater focus on domestic brands than globally-sold brands, and this initiative has started to gain success.

Collaboration between R&D groups in Japan and the U.S. is important since the R&D team in Japan has broad experience in beverages. We can transfer technology accumulated in Japan

to U.S. customers through collaboration among these R&D teams and customers. While we continue to secure and expand sales for the savory market that we have historically focused on, we plan to increase flavor sales to the beverage market as well.

As the Japanese domestic market saturates along with the aging population, it is absolutely necessary for us to enhance our global operational presence for further growth. Therefore, although we do not have any specific plans at this moment, acquisitions in the overseas market are always an option for us. By leveraging our experience of acquiring Peresscol, if there is any item suitable for our strategy in the regions we are focusing on (such as Southeast Asia and the U.S.), we will give positive consideration to it.

P&F: What do you think will be the main driver for flavor and fragrance sales in 2016?

Kondo: The growth of the Japanese domestic F&F market is expected to be moderate due to the aging population. On the other hand, low consumer spending after the consumption tax [increase] in Japan in April 2014 is expected to recover gradually [as well as] the new market for flavors along with [the] aging population such as [with] nutritional food and food for medical use. Flavors for non-alcohol beer/cocktails and replacers for natural ingredients will also be able to create some room for a demand increase of flavors. We will aim for the sales recovery in the Japanese domestic market by capturing those demands.

Emerging markets, including Asia and South America, have the huge contribution for the growth of the global F&F market. In China, although the growth rate slowed down, the beverage and instant noodles markets are expected to continue their growth, which would result in increasing demand for flavors. In a long-term perspective, further increase in demand for flavors is expected along with the demand increase for processed food in the inland areas of China as living standard becomes higher in those areas (our current sales in China are mainly in the coastal area).

In Southeast Asia, the growth rate of F&F remains at ahigh level, reflecting the economic growth of the developing countries in this area. We are expecting the demand for flavors used for beverages and processed food such as confectioneries to keep increasing.

P&F: Do you have plans or anticipate any acquisitions?

Kondo: Not at the moment.

P&*F* also spoke with Mark Bair, president and CEO, Americas, T. Hasegawa USA Inc. on raw material costs and the U.S. marketplace.

T.HASEGAWA CO.,LTD.



Mark Rair

One of the biggest challenges right now [for the F&F industry], are new U.S. regulatory requirements for the Global Harmonization System (GHS) that take effect in June.

—Mark Bair

P*\psi***F**: How has your company dealt with the impact of raw material costs?

Bair: During the last year, we added new leadership capabilities to our raw material procurement team. Our approach is to be strategic about purchasing to minimize price fluctuations and ensure consistent availability of raw materials. The first line of defense to cost increases is negotiating favorable contracts with supply partners. Second, we're always looking for ways to enhance operating efficiencies to keep our costs in line. Finally, we seek to mitigate cost increases with customers, through creative solutions that create win-win outcomes.

P&F: Do you expect prices to stabilize this year?

Bair: There may be continued pressure on costs and prices due to drought and other climate considerations that impact raw material availability and supply—offset by lower oil prices. With that said, we will do everything in our power to stabilize prices, as described above.

P&F: What do you think will be the main driver for U.S. flavor and fragrance sales in 2016?

Bair: In my opinion, the main drivers for U.S. flavor sales will continue to be innovation and customer value. Innovation is a requirement for differentiation, which drives consumer/customer interest and consumption of foods and beverages. Innovation in turn will be driven by four key consumer trends:



T. Hasegawa USA's new R&D and headquarters building in Cerritos, California.

1) growing interest in artisanal foods and beverages; 2) trending foods from diverse global regions; 3) dual interest in health and indulgence; and 4) the move toward simplified, clean labels including natural, non-GMO and organics. Value: a function of 'what you get,' being aligned with 'what you pay', remains a constant for consumers, customers and the entire value chain.

P&**F**: Are there any new markets you would like the business to enter into?

Bair: Our market focus remains two-fold. First, we will continue our broad focus on the savory segment of the business, a foundational pillar since our North American business was established in 1978. Second, in the last few years, we've expanded our focus to beverages because of the size and growth and because of expertise and experience that can be leveraged from our business units in Japan and Asia. Geographically, we will continue to expand our business in Mexico as a platform for business growth in Latin America.

P*\psi***·F**: What, in your opinion were the unit's biggest successes this year?

Bair: We're very proud of the investment we made to renovate and expand our new R&D center and headquarters building in Cerritos, California (pictured). This state-of-the-art facility enhances our flavor creation and application laboratories, provides new analytical lab capabilities, new pilot production labs and a new culinary laboratory kitchen. The open and inviting interior spaces were designed for consultation and collaboration with customers, to fulfill their flavor creation and application requirements. Our Princeton Creative Center in New Jersey has also been upgraded and expanded—and focused on beverage flavor creation and applications.

P&**F**: What, in your opinion, is the biggest challenge that the U.S. F&F industry faces right now?

Bair: One of the biggest challenges right now [for the F&F industry], are new U.S. regulatory requirements for the Global Harmonization System (GHS) that take effect in June. This requires a significant investment in systems and processes to ensure full compliance. In addition, continued strong public interest in non-GMO ingredients, organic and natural ingredients, enhanced nutrition and eliminating ingredients like [partially hydrogenated oils] represent both challenges and opportunities for flavor companies and their customers.

12 Huabao International Holdings Ltd.h

Hong Kong 2014 sales: ~HKD 3,310 million/\$426.8 million Estimated market share: 1.7% Chairman and CEO: Chu Lam Yiu

A newcomer to this year's *Leaderboard*, Huabao International specializes in the research and development, production and sales of flavors and fragrances (tobacco, food and cosmetics) and reconstituted tobacco leaves. In addition, the company provides asset management and investment management services, as well as equipment leasing and leasing consulting services. The group has established upstream raw material extraction bases in Botswana, southern Africa, Guangdong, Jiangsu and Hunan, production bases in Shanghai, Guangdong, Jiangsu, Yunnan, Jiangxi, Fujian and Hong Kong, an R&D center in Holzminden, Germany, a U.S.-based R&D center focusing on innovative tobacco products in North Carolina, a state-recognized technical center in Shanghai, and R&D departments in Guangdong, Yunnan and Fujian.

 $^{\rm h}$ For 2014, Leffingwell currently estimates that the company's 2014 sales within F&F sectors alone will be about HKD 3,310 million. This will be adjusted when final results are announced.

For the six months ended September 30, 2014, Huabao recorded sales revenue of HKD2.15 billion, representing a growth of 10.8% over the same period the previous year. Its business segments recorded growth across the board, among which its flavors business segment performed better than expected, with sales revenue reaching HKD1.58 billion, representing a growth of 11.2%. Among its brands, the company makes Xidengi, a well-known domestic tobacco flavor brand. In particular, the company has developed its e-cigarette business accordingly, with its brand SPV registered in China and the United States. The company says its upcoming development will be "focusing on brand building and promotion, so as to quickly build up its reputation and to strive to become a renowned e-cigarette brand name domestically and abroad."

ⁱXideng is a trademark of Huabao International.

To purchase a copy of this article or others, visit www.PerfumerFlavorist.com/magazine.