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Issue 1/2017: Scaling and transforming Olam Cocoa to spur growth

Cocoa growing in Tanzania

A year ago, Olam Cocoa completed the acquisition of ADM's cocoa business at an enterprise value of US\$1.2 billion, becoming a top three global processor and the world's foremost supplier of cocoa beans and cocoa products.

In this first and bumper issue of **Olam Insights** for 2017 (aptly so as it addresses one of Olam's largest business platforms), our Cocoa team shares their experiences of integrating the largest acquisition ever made by Olam and their journey to create value across the cocoa supply chain with a renewed focus – from bean sourcing, processing and market research, to risk management and product innovation.

One year on: transforming a global cocoa business

By Gerard A. Manley, Managing Director & CEO, Olam Cocoa

Just over a year ago we announced the formation of a new, expanded and transformed Olam Cocoa. Having worked in cocoa for more than 32 years, I was very proud to finally see two world-class cocoa operations unite as a single business.

The strategic rationale for putting these two businesses together was that it allowed our Cocoa platform – which is one of the prioritised businesses for the Olam Group – to become a focused

and fully integrated global market leader for the supply of cocoa beans and cocoa products.

Significantly, the expanded business leverages the complementary components of each of the previously separate companies. Olam was already the world's largest originator and trader of cocoa beans and maintained the most extensive footprint in terms of farm gate origination presence across all of the key cocoa producing countries. In addition, we also had a well-established proprietary and fundamental research resource framework in place that provided us with exceptional cocoa market insights. Alongside

our world-class strategic trading and risk management skills, through the acquisition we secured extensive manufacturing capabilities for the processing of cocoa into cocoa products – cocoa powder, cocoa liquor and cocoa butter – as well as expert cocoa product development and innovation infrastructure.

The cocoa processing asset portfolio we acquired allows for roughly 600,000 metric tonnes (MT) of processing capability in eight factories across North America, South America, Europe, Africa and Asia, and it added 10 warehouses, two usines, four innovation centres and 16 sales offices to our operations.

Combined with our existing processing facilities, our total capacity increased to 700,000 MT. Now, as a combined entity, Olam Cocoa procures 950,000 MT of cocoa beans or just over 20% of the total global production, with the vast majority from our own origination business. We source cocoa beans to supply our own factories and to support new and existing customers, including the world's leading international chocolate brands. Current and projected global demand will need to be met by increased supply, which creates a situation where we believe we will be able to keep growing our origination volume and value.

Alongside our global, premium brand *deZaan*, with its heritage of more than 100 years, our cocoa product brand family now includes Pan-African origin brand *Unicao*, 70-year-old Brazilian brand *Joanes*, well-established cocoa powder brand *Macao*, and specialty fats brand *Britannia*. In 2017 we will also be launching a new cocoa powder brand, *Huysman*, in North America and APAC to support growing demand in those regions.

Integration and market challenges

A year ago the challenges and opportunities in front of us were clear. Almost overnight we needed to integrate more than 1,500 people, many different assets and systems and dozens of facilities into a functioning, global operation, and ensure a successful, thriving and empowered organisation. While there is still plenty of ground to cover, and further investments and changes to be made, we are well on our way! Compared to a year ago, our business is in a stronger, healthier and more profitable state.

Our combined resolve and ability to overcome difficult market conditions and emerge stronger was tested through 2016. While processing margins did improve during Q3 2016, the period was one of the worst deficit environments for cocoa that we have ever encountered. Since the acquisition, low cocoa bean supply, high differentials and an inverted market structure with volatile currency and trading conditions have all posed as challenges for our business, as for all other industry participants.

Improved customer relationships

A year ago some customers were unclear about how Olam Cocoa would manage the many changes we were pursuing. With developments in our sales teams across the world, improved sales management and consistent customer interaction we have re-established these



Olam's cocoa powders are marketed under its cocoa product brands - *deZaan*, *Unicao*, *Joanes* and *Macao*.

"Olam Cocoa remains a leader in providing sustainable cocoa. Not only are sustainable supply chains the socially responsible way to operate, they are also now one of the key success determinants with our customers."

Gerard A. Manley, Managing Director & CEO,
Olam Cocoa

customer relationships and increased our business coverage. We have also substantially increased our forward sales capabilities in cocoa powder, cocoa liquor and cocoa butter.

Our customer relationships with major multi-nationals are constantly developing. Recently we received a personal note from the CEO of Global Procurement at one of the largest chocolate manufacturers in the world, expressing appreciation for our support in keeping their manufacturing operations supplied during the recent market turbulence and for our excellent after-contract service.

In every part of the world Olam Cocoa's presence is growing – we have added over 50 new customers this year in Europe, Middle East and North Africa and 33 new customers in Asia. This has been a direct result of improvements in our customer support and sales teams and of our enhanced cocoa product development and innovation capabilities.

Sustainable cocoa

Our strong customer base extends to more than 2,200 customers across the globe, with many being blue chip multi-nationals. However, and perhaps

most importantly, our customer support capabilities are increasingly focused on the supply of sustainable cocoa. It is therefore with great pride that I am able to say that Olam Cocoa remains a leader in providing sustainable cocoa. In today's world this capability is taking on greater importance. Not only are sustainable supply chains the socially responsible way to operate, they are also now one of the key success determinants with our customers. Being able to supply sustainable cocoa at scale is a factor that we firmly believe will continue to carry greater weight in the customer decision making process going forward.

We have continued to Grow Responsibly, further strengthening our worldwide sustainability initiatives and, vitally, have launched large new programmes with customers on traceable cocoa butter and sustainable cocoa powder. Our support for CocoaAction also remains strong as the industry continues to face livelihood challenges and long term cocoa production issues with widespread economic and social consequences. Last year we sourced over 200,000 MT of sustainable cocoa through our programmes and we believe this will increase by over 20% in 2017. The mainstay of our sustainability programmes continues to be in West Africa, but we are strong in Indonesia and Ecuador, and in Q4 2016 we launched a new programme in Brazil.

A recent independent audit of our programme in Ecuador concluded that "*Olam's Farming Programme stands as a model for other companies and producers throughout the tropics*". We now need to further capitalise on our position to become not only the largest supplier of certified cocoa beans worldwide, but also become the largest supplier of certified cocoa products. We still have work to do on fully integrating our supply chain and achieving our goal of 100% sustainably sourced cocoa by 2020.

'Future proofing' Olam Cocoa

We continue to look for opportunities and investments that will 'future proof' our business, including our intense focus on upgrading assets such as our state-of-the-art cocoa product development and innovation centres, customer training facilities and manufacturing plants.

While we have come a long way in the last year, our work is only just beginning. We are working on the cost synergies that we expect to realise as One Olam Cocoa in the areas of procurement, usinage utilisation, logistics management, warehousing and working capital optimisation. Even as we streamline, we continue to improve our revenue streams from improved trading and risk management, leveraging the *deZaan* brand equity, additional procurement, supply chain efficiencies, sustainability initiatives and expanding origination.

As the old adage notes, we are certainly living in interesting times so continue to watch this sector, please enjoy more cocoa, and eat more chocolate!



In October 2016, Olam Cocoa launched the new brand identities for its global cocoa family. Each marque represents the heritage and values of the individual brands.

About the author: Gerard A. Manley

Gerard A. Manley (Gerry) joined Olam International in 1998 and is the Managing Director & CEO of Olam Cocoa. He chairs Olam's Executive Corporate Responsibility & Sustainability Committee. Prior to joining Olam, Gerry worked for ED & F Man Cocoa in London as a director from 1990 to 1998. During that time, he was also a director of their operations in Malaysia, Poland and Nigeria. Gerry has over 30 years' experience in the cocoa business. He is currently a Board member of the World Cocoa Foundation and the European Cocoa Association, and has previously served on the Boards of the Federation of Cocoa Commerce, London Cocoa Terminal Association and the Cocoa Association of Asia. He holds a Bachelor of Arts (Honours) in Geography from the Newcastle Upon Tyne Polytechnic as well as a Master of Business Administration from the City University in London.



Cocoa market knowledge, risks and opportunities

By Amit Suri, Chief Operating Officer, Olam Cocoa

Having recently passed our first anniversary, it's appropriate to highlight how the multiple functions within our global commercial operations team made a success out of what has been an otherwise incredibly challenging year for the entire cocoa industry.

Operating within the four global verticals of cocoa beans, processing, cocoa products, macro and strategic trading, and research, and across the five major geographic regions of Western Europe, East and

Central Europe, Asia, Africa, and North and South America, during the course of the past year we managed to develop and implement a unified approach on strategy, risk management, and external contact best practices with customers, suppliers and service providers.

Our journey a year ago started with extremely tight margins and high cocoa bean costs with inverted structure. The market remained highly volatile for months, with prices moving in the range of more than 40% due to factors including global, macro-economic issues, industry-specific cocoa supply and demand concerns.

Chinese market weakness and a poor outlook in January dropped prices to low points of below £2,000. The Brexit announcement pushed prices to high points, above £2,500, as cocoa remains the only major agricultural commodity traded in GBP. Brexit was also followed by a weakening GBP against the Euro and USD, which created a less expensive market for consumers as well as for major industrial chocolate producers.

The challenges experienced were nearly unprecedented, with supply and demand the major factor behind price moves in futures, structure, cocoa beans and cocoa butter. These issues created periods of exceptional market turbulence and arduous trading conditions. Despite this, Olam's unique capabilities in terms of research, strategic trading, operations,



analysis and risk management have put us in a position where we are significantly better off than we were a year ago.

Our market knowledge remains our greatest strength through our world leading crop research and analysis functions. These functions add immense value to our operations. When the market was at its most tumultuous during the last 12 months, it was the consistent data streams and on-the-ground support from these teams that helped us see potential

"Our ability to remain nimble over the long term, particularly during the recent market vacillations, is underpinned by the internal knowledge database we have developed over the past 20 years."

Amit Suri, Chief Operating Officer, Olam Cocoa

crop problems with sufficient advance warning. As an example, our research teams correctly forecast the impact of the record dry conditions and heat in both West Africa and Indonesia, as well as the subsequent impact it would have on reducing global supply, giving us a distinct competitive edge.

This insight was the key to positioning ourselves appropriately as a business, with the particular advantages of being well covered from the supply side and the ability to inform our customers in advance of supply status.

When new hurdles arose, our forward data projections and analysis gave us leadership as the foremost cocoa company in the market, particularly during the episodes of greatest market stress, because we were able to fulfil the needs of our customers while they were otherwise facing supply shortages from, and delivery issues with, our competitors.

Our ability to remain nimble over the long term, particularly during the recent market vacillations, is underpinned by the internal knowledge database we have developed over the past 20 years, focused on consistent dataset growth by continually integrating measurable data points and trend indicators from within each origin. This information helps shape and direct our risk management strategies and actions throughout our supply chain and in the derivatives markets.

Our experienced traders bring a nuanced market understanding to the equation as well, which is a particular advantage in a niche commodity like cocoa. We also have direct access to some of the cocoa industry's leading, externally crafted analyst reports and we are in constant communication with other market participants in order to better gauge the market from a pure, publically available information point of view.

The business however is not without risks. This includes supply risks due to climate change and harmful weather conditions that may, depending on the origin, range from aridity and pronounced drought to deluge and pest vigour. We also continue to see increasing market participation amongst speculators, an issue that can create market unpredictability and instability.

As cocoa is a balanced supply and demand commodity market, any supply issues automatically create a risk. The increasing origination concentration we see in certain geographies and amongst some of the largest market players also increases risk. Finally, the end consumers generate a certain amount of risk for the market due to flat and/or declining demand for chocolate in some market regions that is based around health concerns, valid or not.

We remain cautious about the market volatility and uncertainty ahead, while confident in our structure and our capabilities to capitalise on the opportunities that might be available. The greatest driver of this confidence is the demand growth we see for cocoa powder and chocolate amongst consumers in emerging markets and in countries with expanding demographics that have access to increased discretionary income.

About the author: Amit Suri

Amit Suri is the COO of Olam Cocoa responsible for its global operations. He oversees the cocoa beans, risk and processing, products and the macro and strategic trading and research verticals and functions. Post joining Olam in 1996 in Indonesia, he spent six years in Olam's Singapore office followed by 10 years in its London office. After 16 years at Olam, Amit left the Company to join Blenheim Capital Management but rejoined Olam in 2013. He is a board member of the Federation of Cocoa Commerce and is also a member of the Advisory Committee to the ICE Cocoa Exchange in London.



The value drivers behind bean origination

By Manoj Vashista, Global Head of Beans, Olam Cocoa

As Olam's role shifts from being a cocoa beans trading house to an integrated cocoa products supplier, we now fully leverage our procurement network, maximise our cocoa bean buying potential and capitalise on the large economies of scale in origination to generate larger cocoa bean volumes – thanks to the added liquidity created by our own processing factories.

This deepens our distinct competitive advantage as a supply chain manager. Our origination remains peerless. If anything, we have only strengthened – we are currently the only company that is directly present in 11 origins and working with an origination capacity of 950,000 MT. We now handle more than 20% of global production.

Our focus on sustainability programmes, engagement initiatives and farmer participation place us in an even more



Sorting cocoa beans, Côte d'Ivoire. Olam is currently the only company that is directly present in 11 origins with origination capacity of 950,000 MT, handling more than 20% of global production.

advantageous position. That focus brings us closer to the cocoa communities from which we source and foster long term partnerships. It also provides opportunities for long term supply agreements with customers. We are now scaling our sustainable cocoa beans sourcing across all of our geographies, straight through to our own manufacturing of sustainable

cocoa products to present a complete, sustainable supply chain solution.

Today, we enjoy improved economies of scale with our increased origination volumes and lower logistic and warehousing costs; we have greatly enhanced our bean liquidity, further increasing our competitive positioning. Our depth and breadth of origin presence

supports the premium we command in times of supply shortage as we can substitute with cocoa beans from other origins.

Now that we are managing an integrated cocoa supply chain from beans to products, our cocoa bean trading capabilities have vastly improved. We are able to predict supply and demand conditions better as we analyse emerging trends from all angles, across origins and markets, from bean sourcing, trading to products sales, supported by our risk management strategies. This allows us to make more informed decisions on trading activities – which is particularly important in times of market volatility and illiquidity, where our experience in these situations

over the last 22 years is now enhanced through greater market participation.

For example, in certain origins where we are required to buy beans a year forward from national governing bodies, we only enter into contracts if they are supported by a firm and well-informed view on supply and demand. By applying this strategic trading methodology we secure liquidity and margins in what may otherwise turn out to be illiquid situations.

However, our ability to sustain our competitive advantage depends on the execution abilities of our team. The challenge is to be able to attract and retain the best talent to operate in the upcountry

locations at the origins, which happen to be some of the world's most difficult operating environments. The growth potential offered by the larger Olam Cocoa business has become the motivation behind our team to excel and take part in creating the most differentiated and valuable cocoa business in the world.

Going forward, we are focused on increasing volumes while optimising our global footprint. Designated and expanded teams working on streamlining supply chain processes, including sourcing activities, are now in place in all regions and we have a global working group to share successes and communicate future opportunities.

About the author: Manoj Vashista

Manoj Vashista is the Global Head of Beans at Olam Cocoa and has been with Olam for 16 years. He joined Olam Nigeria as a cocoa branch coordinator in 2001 and became its head of cocoa, handling both beans and processing in 2006. In 2008, he was transferred to Côte d'Ivoire and then moved to London in 2010 to head the Africa cocoa bean trading business. He took over as head of the beans business from January 2015. Prior to Olam, Manoj worked for India's largest food company and Asia's biggest cooperative organisation GCMF known for its brand, AMUL. Manoj holds a Bachelor of Technology in agricultural engineering and a Master of Business Administration.



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Manoj Vashista, Global Head of Beans, Olam Cocoa



Freshly harvested, ripe cocoa pods, Côte d'Ivoire. Olam's capacity in the country has more than doubled from 70,000 MT to 150,000 MT.

Focal point: Côte d'Ivoire

By Arouna Coulibaly, Head of Cocoa for Côte d'Ivoire, Olam Cocoa

Côte d'Ivoire (CDI) is the top cocoa producing origin in the world. This is due to efforts made by the Conseil Café Cacao

(Council for Coffee and Cocoa or CCC), agri-businesses like Olam Cocoa and NGOs over the last five years to ensure more sustainable cocoa farming, which supports farmer and community revenues and improves farmer livelihoods. As a result, quality has significantly improved and should continue to do so.

The CDI government remains committed to this trend in order to achieve a realistic target of 2.0 million MT by 2020. Upcoming government supported operational incentives for the CDI grinding sector, including tax incentives are expected to boost national industrialisation and are likely to change the dynamics of the broader cocoa sector.

Positive outlook for processing

With the integration of ADM's cocoa operations, Olam's country capacity has more than doubled from 70,000 MT to 150,000 MT.

Our capacity utilisation, previously at 60%, has improved to more than 85% since October 2016, thanks to expanding market opportunities and cocoa bean availability and quality. Our team and their technological skills have also enabled us to differentiate and innovate products and SKUs.

Olam Cocoa has been working to expand its capabilities in origin processing in CDI, especially those of sustainable cocoa beans, and we hope that the new processing industry incentives introduced by the CDI government will help ease financial burden and encourage grinders to increase their scale and scope in the country.

Expanded processing capacity and the use of innovative new technologies within Olam Cocoa's CDI processing factories provide a stepping stone for us to achieve the next level of value addition for destination market factories. The primary and secondary processed cocoa products that we generate for export are optimised for downstream processing. For example, our CDI produced cocoa cake can be milled into cocoa powder in our factory in Spain. Our cocoa liquors in unique and more flexible use formats, such as ingot blocks, produce better results during the melting process when used in our customers' confectionery product applications.

Our enlarged presence also allows us to dedicate and prioritise greater origin resources to engage in industry policy formulation discussions and ensure that our inputs have a positive impact. For example, Olam Cocoa played a lead role in the successful restructuring of the GEPEX group of exporters (which accounts for more than half of the country's cocoa exports). The group now drives more constructive interactions between the CDI government and public institutions, an important and positive development for the industry and civil society.

Greater beans volume

Prior to our acquisition of ADM's cocoa business, we ranked amongst the top five buyers of CDI's beans. Today, we are well-positioned to be amongst the top three, if not the No. 1 buyer, with a procurement market share of 15-20%, in

the ongoing cocoa season for 2016/17 which is expected to be better than the crop year 2015/16.

Our sustainability volumes for each crop season typically range between 60% and 70% of total volumes – which we expect to increase steadily over the next three years as we pursue our goal of 100% sustainably sourced cocoa worldwide by 2020. Currently, we are working with more than 80,000 farmers (approximately 250 co-operatives) and we continually engage with them to solidify a capable sourcing network that is ready to deliver 200,000 to 250,000 MT of sustainable cocoa in a normal crop year.

Looking to 2017 and the future, we are targeting to reach a total annual capacity of 300,000 to 400,000 MT. To this end, we are working to strengthen our current relationships with supply chain partners and grow sustainability volumes.

About the author: Arouna Coulibaly

Arouna Coulibaly is Senior Vice President and Head of Olam Cocoa in Côte d'Ivoire overseeing its beans and processing operations. He joined Olam in early 2014 in Côte d'Ivoire with over 30 years' experience in the cocoa business worldwide, including trading and industrial processing. Before joining Olam, Arouna worked with Cocoa Barry for 10 years and then spent 17 years with Barry Callebaut in various management positions, including engineering, production, quality and operations management, business restructuring, in Côte d'Ivoire, Cameroon, US and France. He is a member of Côte d'Ivoire's Cocoa Exporters Association Executive Committee (GEPEX).



Progress on cocoa sustainability

By Simon Brayn-Smith, Head of Cocoa Sustainability, Olam Cocoa

The Olam Cocoa sustainability business continued to grow in 2016, whilst also undergoing some significant changes after the acquisition of ADM's cocoa business. The acquisition opened up new markets for sustainable products.

On the supply side, we have diversified our supply of sustainable cocoa beans to match our global footprint. For example, we now source 20% of our total sustainable volumes from Côte d'Ivoire versus 99% previously by ADM from this single origin.

On the demand side, our changing and growing customer base requires

us to continually review our underlying sustainability strategy and outlook. As our sustainability business has become more diversified across more origins, we will rely less on dedicated programmes and instead work on achieving alignment on the key sustainability concepts in all of our origin programmes.

We have finalised new, long term agreements with key customers for the supply of traceable cocoa butter from West Africa and sustainable cocoa powder. We are also engaged in discussions with a diverse range of global customers regarding new long-term programmes and the extension of existing sustainability programmes into new origins.

Our in-origin work continues to be strengthened with key initiatives, including the extension of our climate model in Indonesia and Nigeria and a

new IFC/Scope Insight capacity building programme in Côte d'Ivoire. We have reached a milestone of 100% of our farmer groups in Côte d'Ivoire now having in place a Child Labour Monitoring and Remediation System. We also continue to be a leading contributor to CocoaAction (in which Olam Cocoa is a founding member), which by 2020 intends to support 300,000 cocoa farmers. In the meantime, we are working towards fully aligning the practices and activities of our sustainability programmes in Ghana and Côte d'Ivoire to achieve the same quality, yield and livelihood success levels and to positively adjust the activities in each country according to key cross-learning generated.

Overall our sustainability programmes continue to be highly regarded by our customers with one recent audit report in South America commenting that

"it's rare to observe such a radical transformation, and [we] would like to highlight and applaud this work."

Our cocoa sustainability is well placed to capitalise on opportunities. On the commercial side, we have established a large market share with major global

chocolate brands that will position us for strong growth as these customers stretch towards their 2020 sustainable volume commitments. Conversely, our market share with smaller players is currently fairly minimal, which allows for growth as we improve our marketing and communication strategy.

In addition, as the sums spent on sustainability and sustainable products increase, customers are demanding ever more transparency, specifically around premium and physical traceability, and on data openness. For premium traceability, our willingness to offer dedicated programmes where customers are directly involved with the farmer base and programme activities is clearly an advantage and is not something routinely offered by our competitors. Physical traceability is becoming increasingly requested by certain customers and as segregation costs are reduced, Olam is well positioned to meet this demand. Physical traceability is also likely to become increasingly important as issues such as deforestation move up the agenda.

Finally, our Olam Farmer Information System (OFIS) is an industry leading tool for supply chain transparency and continues to support our in-origin work as well as customer engagement.

About the author: Simon Brayn-Smith

Simon Brayn-Smith is the Head of Sustainability for Olam Cocoa. He has been with Olam for seven years, initially as a procurement manager based in upcountry Ghana before moving to London in 2011. In addition to his responsibility for Olam Cocoa's sustainability business, Simon is a key account manager for the chocolate industry. During the past two years, Simon also headed the development of the Olam Farmer Information System, a pioneer smallholder farmer tool designed to work both as an integrated farmer group management system and a data collection, analysis and application tool. Prior to joining Olam, Simon was in the British Army for five years.



Processed cocoa liquor being funneled into ingots for packing, Côte d'Ivoire. Cocoa liquor in this format produces better results during the melting process when used in our customers' confectionery product applications.

Extracting value from bean to product

By Tejinder Singh Saraon, Global Head of Processing, Olam Cocoa

Prior to last year's ADM cocoa acquisition, we operated two main cocoa processing facilities, one in Côte d'Ivoire and one in Spain. Now the expanded Olam Cocoa business has moved us from being a top 10 to a top three global position and our

global manufacturing footprint has grown to include 12 advanced cocoa processing, milling and refining facilities.

As an integrated operation, we are now able to extract greater synergies and value from having both cocoa bean sourcing and cocoa processing. The stability and security of our cocoa bean supply in turn creates stability and security for our manufacturing operations because our sourcing capabilities exceed those of our

processing capacity. This situation means our integrated cocoa product and support services offering put us on a growth and market position trajectory that is superior to those of our competitors.

Our manufacturing teams are constantly working to extract greater value from all areas of our processing activities. This includes cost optimisation, cost and mechanical efficiencies, worksite safety improvements and streamlined

productivity in all factories. The economies of scale that we can now capitalise on are also significant so that the cost footprints of our facilities remain competitive. On the revenue front, we are working towards new efficiency benchmarks and are investing in our factories with the latest technologies to meet product demand, generate capacity growth and establish better premiums.

As Eric Nederhand, our General Manager and Head of EU Cocoa Processing, recently commented, *"2016 was a transitional year full of changes. It did take a while to shift our mindset from working in an environment where everything was centrally organised, to a much more optimal organisation at Olam Cocoa, where responsibilities are decentralised and delegated to locations and individuals. As we progressed through this past year, we really saw the benefits of combining the best attributes of each operation, resulting in a significant*

"Our broad asset spread helps us to respond quickly to the individual economic situations of the country in which each factory is located, emerging trends and market fluctuations, as well as to quickly support customers anywhere in the world."

Tejinder Singh Saraon,
Global Head of Processing, Olam Cocoa

increase in product sales and factories running at capacity again. One major source of improvement was implementing Sales and Operation Planning (S&OP) together with four cross-functional Olam teams, resulting in greater cooperation and communication between the sales, logistics and production."

Factory asset utilisation retains some dependency on the relative economics of the region in which the particular processing facility is located, as well as on the demand outlook for various cocoa products and on our own projections of future demand. Fortunately, our broad asset spread helps us to respond quickly to the individual economic situations of the country in which each factory is located, emerging trends and market fluctuations, as well as to quickly support customers anywhere in the world.

In addition to processed cocoa ingredients, we provide cocoa bean solutions to customers. The advantage this creates for the processing side is that, because of our supply infrastructure, we are able to focus exclusively on the quality of the cocoa products we produce without having to worry about the supply security

of the cocoa beans we are receiving into the factory.

This is important because customers often have differing requirements in terms of the quality specifications of the cocoa products which they are putting into their applications. Customer needs drive the cocoa bean usage in each factory. Uniquely, our vast origination footprint means we can, in direct response to market demand, dynamically optimise the blends of the cocoa beans going into production. This capability supports the needs of our customers and assists us in internally managing and improving our own operations.

Due to our expanded cocoa processing footprint, our major advantage now is that we are able to manage the production of cocoa products within very competitive cost structures and create added value in the process. This is because we control both ends of the cocoa supply chain, as well as all of the logistics within that chain and during each step. As the global demand for cocoa products increases, we will continue to extract greater value from our cocoa processing operations for the benefit of our customers.

About the author: Tejinder Singh Saraon

Tejinder Singh Saraon is Olam Cocoa's Global Head of Processing. He joined Olam in 1997 and managed Olam's cocoa business in Togo, Benin and Côte d'Ivoire, as well as in Singapore before moving to London in 2009 to run Olam's global cocoa beans and products business. Teji has over 19 years of experience in cocoa trading and origination and has previously served on the board of Cocoa Association of Asia.



Optimising our manufacturing capabilities

By Jeff Pfalzgraf, Global Head of Manufacturing, Olam Cocoa

We began and are concluding the year, running our cocoa factories at full speed. At times, a challenging market and the global impact of a poor cocoa crop necessitated some speed reductions. However, we have overcome these challenges and have successfully met through-put targets and melting rates.

Manufacturing successes have been achieved in areas including de-

bottlenecking the Goole, UK and Koog, Netherlands melting operations, and through focused investments to increase the production capacity of improved products out of our Mannheim, Germany factory. The Singapore cocoa team instituted improved process control measures and set numerous monthly records in the production of specialty cocoa powders. We employed similar improvement measures in Ilhéus, Brazil and ensured that the factory there was running at capacity standards to meet growing industry needs.

Manufacturing yields did suffer at times because of the reduction in cocoa bean fat content and increased cocoa bean counts.

This was a global issue that impacted all regions on the back of the worst growing season in 30 years. Our teams responded by forming a global working group to reduce solids and waste stream fat contents. All locations were successful in reducing press fats and identified a number of further capital improvements to be instituted in 2017 for the reduction of fat in waste streams.

Pleasingly, Olam's cocoa business is enjoying the best safety year ever. Year to mid-December, we have had only one Lost Work Day Case and two Medical First Aid Cases with nearly four million man-hours worked.

The operational improvements on our melting operation in Goole, UK, and our milling asset in Edison, US will be key to supporting our 2017 plans. These will enhance our ability to deliver semi-finished products from origin to customer in all major destination markets. In addition, there is significant work being done to improve our cost basis through optimising energy, labour utilisation and improving efficiencies – all actions that will support our competitive advantage.

About the author: Jeff Pfalzgraf

Jeff Pfalzgraf is Global Head of Manufacturing at Olam Cocoa. He joined Olam Cocoa with over 29 years of hands-on manufacturing experience in the food industry. During his previous tenure at ADM, he held a wide variety of positions, from shift foreman in a soybean oil refinery to VP of Global Manufacturing for the cocoa division. Jeff holds a Bachelor of Science in Chemical Engineering.



Asian cocoa market overview

By Yeong Chye, Global Cocoa Business Head (APAC), Olam Cocoa

In the APAC region, our cocoa products sales were stronger in 2016, especially for cocoa powder. We achieved record sales levels, in part due to the addition of 33 new customers and the execution of 69 different cocoa product development and innovation customer projects. We also launched three new product concepts. All of these actions were supported by the superior efforts of our sales team, resulting in both a good volume of sales and improved margins.

The demand for cocoa butter was also strong due to supply issues in the US and Europe. The cocoa butter ratio traded to a high of about 2.8 during the peak of the shortage crisis before it eased back to 2.2 by early December 2016.

The retail business in Asia can be broadly divided into five major categories. They are: Beverages, Baked Goods and Biscuits, Chocolate Confectionery, Ice Creams and Desserts, and Cereal Products. With the exception of the chocolate confectionery category, which has seen a market slowdown, the rest of the categories



deZaan's premium cocoa butter. Demand for cocoa butter in 2016 was strong due to supply issues in the US and Europe.

remained buoyant on continued economic growth, especially in developing countries such as China, Indonesia, the Philippines and Thailand. As a result of this, the overall consumption of cocoa products has been maintained as it is driven by cocoa powder. Most of our major customers in the region have reported good products sales despite sentiment being impacted by Brexit and a rising interest rate environment.

On market trends, we saw a change in eating habits from locally produced sweets to more chocolate confectionery products, especially in countries such as

Indonesia and India. Due to rising income and affluence, consumers are now more health conscious and discerning regarding the quality of the products they purchase. We saw a sharp increase in the number of cafés and bakeries in major cities and this in turn has driven up the demand for baked goods, pastries and beverages.

The most important trend is the continued rise of e-commerce activities. This is changing the way consumers shop and how companies position, market and deliver their products and manage their inventories.

All of these trends present opportunities for Olam Cocoa. Demand for cocoa products will continue to increase in tandem with consumer demand for beverage, confectionery and baked goods, smaller package sizes and premixed products. Interest in Vendor Managed Inventory (VMI) systems is also increasing as customers expand their own e-commerce platforms.

Our processing capacity in Singapore has now maxed out. As we needed additional footprint to support our growth in Asia, we have recently partnered with BT Cocoa Indonesia to provide us with an expanded platform from which to grow our APAC cocoa business.

About the author: Yeong Chye

With more than 30 years' experience in agri-commodity marketing and trading, Yeong Chye joined Olam Cocoa in 2015 as its Global Head of Asia Pacific following 18 years at ADM. Based in Singapore, he has extensive experience working across numerous Asia Pacific markets, including Indonesia, Japan, China, Philippines, India and Australia. Yeong Chye was previously a council member for ASEAN Cocoa and served as chairman of the Cocoa Association of Asia. He holds a Bachelor in Business Administration, having majored in Finance.



Product innovation: a sustainable competitive advantage

By Rinus Heemskerk, Global Head of Product Development and Innovation, Olam Cocoa

A key advantage for Olam Cocoa is being able to support customers in their own regions, with new concept opportunities and existing product refinement to significantly reduce their time to market.

Olam Cocoa currently operates six Cocoa Innovation Centres (CICs) located in the Netherlands, Spain, UK, US, Brazil and Singapore. Our competitive advantage in this space comes from our 47 product development and innovation experts who make up our CIC teams, our ability to support customers directly at our CICs, the physical CIC facilities and the innovative cocoa products that result.

Collaboration with customers

At our CICs, customers are able to experience first-hand the opportunities for collaborative new product development, proof of concept and existing application recipe refinement. Direct access to CIC staff, technical services and test facilities make this possible, allowing customers to participate in one-on-one development sessions and regularly scheduled group seminars. This provides opportunities for the improvement of existing recipes as well as expert resources for new product development.

Manufacturers are also able to work directly with CIC staff to shorten formulation timelines and increase efficiencies for specific development projects, resulting in shorter product development cycles and cost reduction potential.



The new Cocoa Innovation Centre in Brazil recently opened to commemorate the 70th anniversary of the Joanes brand.

As consumers become more price conscious, our CIC teams help customers create new products with lower cost-in-use implications. This “Less is More” framework helps manufacturers contain costs without impacting quality by utilising smaller quantities of cocoa powder to achieve the same, or better, results than conventional products.

During the past 12 months we have invested significantly in our CIC premises. This has included the construction of new facilities in Brazil and the US, renovations to our CIC in Spain and ensuring that all of our centres are now supported with the latest technologies for product testing and custom batch application production. In 2017, we expect to further upgrade our North American and UK CIC facilities.

Innovative cocoa products

Over the past year we have launched a number of successful new offerings that exemplify our ability to innovate in order to stay ahead of our competitors. This has included new cocoa powders and new formats and formulations of cocoa liquor and cocoa butter through our strong group of brands, including *deZaan*, *Unicao*, *Joanes* and *Macao*.

“At our CICs, customers are able to experience first-hand the opportunities for collaborative new product development, proof of concept and existing application recipe refinement.”

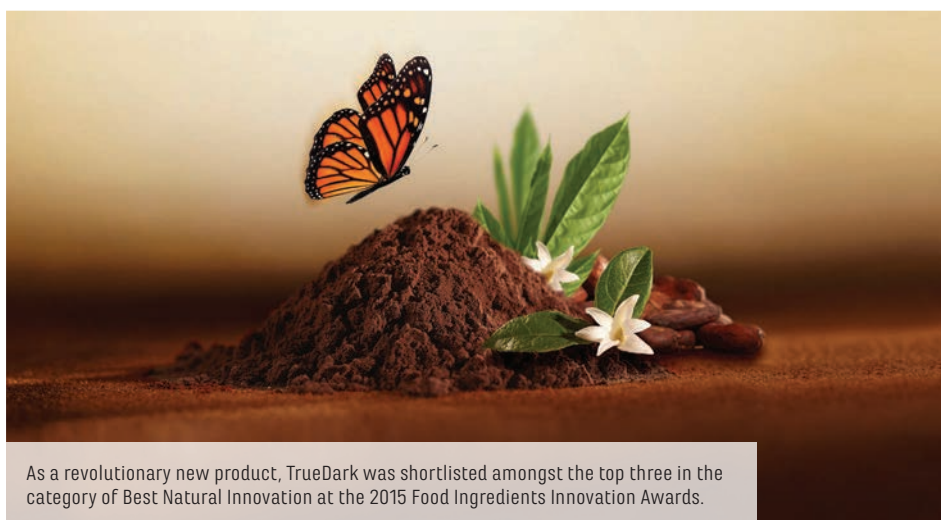
Rinus Heemskerk, Global Head of Product Development and Innovation, Olam Cocoa

deZaan’s TrueDark, the first, medium brown, dark natural cocoa powder, without alkali processing, is a great example. TrueDark was purposefully crafted to meet increasing customer demand for natural and unadulterated foods and sustainable, transparent and clean labelling. It remedies the previously unresolved issue of colour and flavour reduction that otherwise occurs when non-alkalised cocoa powders are utilised in applications.

As part of the celebrations commemorating the 70th anniversary of the *Joanes* brand in Brazil and the opening of our new CIC there, we launched AJ11PK, a new, dark black cocoa powder that has no added sodium. Developed for the Brazil and South American markets, this cocoa powder aligns with the Pan-American Health Organisation (PAHO) policy to reduce dietary salt intake amongst South American consumers. (Sodium is traditionally added as an alkalising agent during processing for dark cocoa powders to achieve the desired colouration.)

Launched at the 2016 Food Ingredients Asia trade fair in Jakarta, Indonesia, the new M558V cocoa powder was driven by growing market demand in Asian nations where the expansion of more affluent demographic segments is resulting in increased demand for higher-end cocoa and chocolate products. It brings our medium-fat cocoa powder processing technology to the market for the first time in that region, developed and produced in our Jurong factory in Singapore, using cocoa beans from nearby Indonesia. To be utilised mainly in beverages, ice creams and breakfast cereals, M558V opens up new opportunities in Asia, which is now one of the world’s most rapidly expanding cocoa product markets.

Many of our cocoa powder product line developments have stemmed from our ability to produce specialty cocoa powder components in a greater number of our factories, making our supply chain more robust and efficient.



As a revolutionary new product, TrueDark was shortlisted amongst the top three in the category of Best Natural Innovation at the 2015 Food Ingredients Innovation Awards.



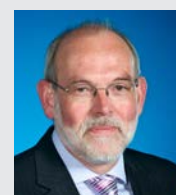
Examples of cocoa raw ingredients and processed cocoa products. In 2017 Olam Cocoa will be launching a new brand *Huysman* with a targeted range of cocoa powders to support the North American and Asia Pacific markets.

1: Assortment of cocoa powders 2: Cocoa cake 3: Cocoa butter chips 4: Cocoa beans 5: Liquid cocoa butter equivalent 6: Cocoa pod 7: Solid cocoa butter equivalent 8: Cocoa nibs 9: Solid cocoa butter 10: Liquid cocoa mass 11: Block cocoa mass 12: Liquid cocoa butter 13: Cocoa mass thins

In 2017 we expect further cocoa product developments to include an expanded offering of black cocoa powders and we will also be launching a new brand *Huysman* with a targeted range of cocoa powders to support the North American and Asia Pacific markets. Due to the exceptional efforts of our product development and innovation teams, the creation of superior, value-added cocoa products that provide improved flavour, superior colour and reliable performance consistency, will remain our focus and continues to set us apart.

About the author: Rinus Heemskerk

Rinus Heemskerk is Global Head of Product Development and Innovation at Olam Cocoa. He joined Olam Cocoa with more than 12 years of experience as a technical director in cocoa, of which the prior five years were with ADM. He has expertise in research and development, processing and product innovation and general management, as well as extensive knowledge about global food industries gained from numerous positions in these industries over the past 40 years. Rinus holds a Bachelor of Science in Food Technology.



Facts on Olam Cocoa

Total cocoa bean procurement	950,000 MT p.a.
11 major origins	Africa: Côte d'Ivoire, Ghana, Cameroon, Nigeria, Republic of Congo (Brazzaville), Tanzania, Uganda Asia: Indonesia, Papua New Guinea South America: Brazil, Ecuador
Total processing capacity	700,000 MT p.a.
9 major processing centres	Africa: Côte d'Ivoire, Ghana Europe: Germany, Netherlands, UK, Spain Americas: Brazil, Canada Asia: Singapore
Products	Cocoa products: Cocoa liquor, cocoa butter, high-fat cocoa powder, low-fat cocoa powder Specialty and confectionery fats: Vegetable fats and cocoa butter equivalents (CBEs)
6 Cocoa Innovation Centres (CIC)	Europe: Netherlands, Spain, UK North and South America: US, Brazil Asia: Singapore
Employee strength	2,750
Number of customers	2,200