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## Issue 3/2016: Olam's wheat milling strategy in Sub-Saharan Africa paying off on region's growing urbanisation and consumption of wheat-based products

Above: Intermediate product inspection by our miller to confirm mill balance and product quality, Crown Flour Mill, Nigeria.

Underpinned by the attractive macroeconomic prospects of the emerging economies in Sub-Saharan Africa and supported by its global supply chain expertise, Olam's investments in wheat milling in the region have given it a market leadership position in what has become the fastest growing wheat flour market in the world.

In this third issue of **Olam Insights** for 2016, our Wheat Milling team explains why it chose Nigeria, Ghana, Senegal and Cameroon for flour production and shares how it has brought operations across different locations together to achieve strong results within a short timeframe.

### Global Grains platform, human capital: our competitive advantages in wheat milling

By K C Suresh, Managing Director & CEO, Olam Grains

Although Olam is a relatively new entrant to the grains space, we have chosen to participate in niche segments rather than in mainstream trade flows where the global majors are well entrenched. This niche yet scalable growth strategy is working well for us.

Today, we are the second largest exporter of wheat out of Russia. We are

well-positioned there as an integrated elevation, origination and trading play with an extensive procurement footprint, port and other logistics assets in the Black Sea region, including Ukraine.

Sub-Saharan Africa is the largest consumer of wheat after North Africa and the Middle East, and is a perfect location for us to base our wheat milling operations, as Olam has been operating in the region for over 26 years.

Since we first entered this business in 2010, we have achieved a top two position in wheat milling in Nigeria and Ghana and are looking to achieve the same in Senegal soon. Early last year we commissioned our milling plant in Cameroon and are in the

process of establishing ourselves in that market.

Our ability to establish a market leadership position is about more than just our long term presence in these markets. It is also about Olam's ability to overcome significant barriers to entry in the milling sector in this region where many others have failed.

Milling in importing countries (or 'imported milling' as we call it) is typically oligopolistic by nature and few millers are able to establish a minimum efficient scale. Access to efficient ocean transportation is central to such scale because the cost of inbound freight reduces with larger vessel size. Access to port land to build mills and

storage is another factor that is critical to establishing a strong market position locally.

Minimum efficient scale also requires significant fixed capital for building a world-class mill and further working capital to establish and manage the long supply chain lead time for sourcing and importing the wheat and then selling flour. The working capital can in practice exceed the amount of fixed capital required for the mill.

Our global Grains franchise, which has been built from scratch since 2008, has addressed and overcome these barriers to entry. Our wheat milling strategy is differentiated by the fact that we source and export wheat from major producing regions such as North and South America, Europe and Australia into importing countries in Africa and the Middle East, as well as managing all the risks across the entire supply chain. Through our global network we source wheat from different origins and generate efficient blends for producing flour.

Within that supply chain, we have also optimised our cost of carry by developing new capabilities in chartering bulk vessels. Our ability to manage larger vessels supports our growing volumes and helps

reduce our overall cost of freight.

On the operational level, our strong execution on the ground has been crucial to our success. Running and building better, more efficient plants has been Olam's key differentiator. Our mills, including our oldest mill which is 30 years' old, are world-class and produce quality products at a lower cost compared to the rest of the industry.

When we first entered the market in 2010 with our acquisition of Nigeria's Crown Flour Mill, we had to significantly overhaul processes and systems to improve downtime, capacity and quality of output. Subsequently, our strong milling and engineering team has transplanted processes while improving on capital costs, running costs and yield at every single mill we have added to our portfolio. Our human capital within our engineering team has been another key differentiator for us.

From both a strategic, competitive and operational standpoint, Olam is in a great place today and is well-positioned for the future to benefit from the attractive wheat milling industry in Africa as we continue to execute this niche but scalable growth strategy.



Above: Olam's grain silos in Nigeria.

**Our wheat milling strategy is well differentiated by our global Grains franchise and the quality of our human capital within our engineering team.**

K C Suresh  
Managing Director & CEO, Olam Grains

#### More about the author: K C Suresh

K C Suresh joined Olam International in Tanzania in 1994. From 1994 to 2000, he held various positions in origination, country management and trading in East Africa and Singapore. In 2000 Suresh left Olam to pursue an MBA and worked for Honeywell in Europe from 2001 to 2008 in various roles, the last of which was as Director of Supply Chain for EMEA. In 2008 he re-joined Olam to start off the Grains platform and is currently the Managing Director and CEO of Olam's Grains business. Suresh has an engineering degree from IT BHU, Varanasi, a Master in International Business from IIFT, New Delhi and an MBA (Hons) from INSEAD, Fontainebleau, France.



## In search of strong returns in Sub-Saharan Africa

By Saurabh Mehra, Senior Vice President & Global Head, Milling, Olam Grains

Sub-Saharan Africa is one of the fastest growing wheat flour markets in the world. The African continent imports 33 million metric tonnes (MT) of wheat, or 60% of its consumption, and Sub-Saharan Africa imports 15 million MT, accounting for roughly 10-12% of global trade. The tropical climate in Sub-Saharan Africa is not conducive for wheat production and hence the region is likely to remain a net wheat importer in the foreseeable future, which is expected to grow at a pace of 4-5% per annum.



Above: Our head miller in Ghana (left) checks the break roll settings which affect the extraction of wheat endosperm from the bran in the milling process. Wheat endosperm is then ground into flour.



As a rule, destination milling is commercially more viable than origin milling as logistics for importing bulk wheat is more favourable than importing bagged flour, which significantly reduces product shelf life. Some markets also ban the import of flour.

With more than 40 countries in Sub-Saharan Africa to choose from, we prioritised locations for wheat milling based on a wide range of market factors. These include market structure and size of the market, population, demographics, level of urbanisation, government policies, and the level of development of the food sector, including downstream business.

Nigeria, as the most populous country in Africa and the largest wheat importer in Sub-Saharan Africa, was a natural place to begin our milling journey. Over the past six years we have built the business to become the second largest miller in Nigeria. We have achieved this by building significant operating leverage which allows us to pass on the cost-savings to our customers.

Starting with the acquisition of Crown Flour Mill (CFM) in Nigeria in January 2010, we have now built a suite of well-located wheat milling assets in Nigeria, Ghana, Senegal and Cameroon. With our latest acquisition of Amber Foods in Nigeria, Olam now has a total wheat milling capability of over 2 million MT per annum and we are now in the process of doubling our milling capacity in Ghana also.

The mills in Ghana, Senegal and Cameroon were green field operations built between 2012 and 2015. Each of these mills has an annual capacity of 150,000 MT. These three countries have similar market characteristics – 500,000 MT of wheat imports, oligopolistic structure and surrounded by countries that do not have a robust milling industry. We view each of these operations as a regional milling hub, focused not only on supplying the in-country consumers, but also the neighbouring countries like Benin and Togo

**“ Olam now has a total wheat milling capability of over 2 million MT per annum and we are now in the process of doubling our milling capacity in Ghana also. ”**

Saurabh Mehra  
Senior Vice President & Global Head,  
Milling, Olam Grains

Criteria/Location	Nigeria	Ghana	Senegal	Cameroon
Population (millions)	160	26	14	21
Rate of urbanisation	52%	53%	43%	61%
Expected GDP CAGR (2013-2018)	11.1%	17.6%	7.3%	7.3%
Wheat imports ('000 MT)	4,200	520	540	500
Flour consumption per capita (Sub-Saharan Africa of 17 kg)	16.9	11.4	19.2	18.6
Projected flour consumption CAGR (2013-2018)	3.9%	5.5%	5.8%	5.4%

Source: USDA, Euromonitor, company filings and research reports.

Year	Country	Milling Capacity p.a. (MT)
2010	Nigeria	480,000
2012	Nigeria, Ghana	630,000
2013	Nigeria (expansion), Ghana	870,000
2014	Nigeria, Ghana, Senegal	1,020,000
2015	Nigeria, Ghana, Senegal, Cameroon	1,170,000
2016	Nigeria (post acquisition), Ghana, Senegal, Cameroon	2,150,000
2017	Nigeria, Ghana (expansion), Senegal, Cameroon	2,300,000

Above: Olam's milling history since 2010 and target capacity.

(from Ghana), Chad and Central African Republic (from Cameroon) and Mali and Guinea Conakry (from Senegal). Such a market cluster approach allows us to play with significantly better economies of scale and achieve full utilisation at a faster pace.

Our focus in all of our operations is on attaining market leadership position by developing deep insights into consumer behaviour, fostering long term and lasting relationships with customers, building operating leverage, optimising cost and business processes and creating one of the most efficient wheat milling businesses in Africa.

By standardising business processes and hardcoding them through SAP across the milling platform, we have been able to replicate and scale up rapidly. This allows for best practices to be shared across units seamlessly and is invaluable in speeding up the integration process of an acquisition. Timely and accurate data enables deep analysis of various metrics in real time and faster corrective and value-enhancing actions.

Our continued success in the milling business is predicated on our ability to

bring to bear our organisational capabilities in risk management, bulk freight logistics, sourcing and trading. Leveraging our Black Sea sourcing capabilities and in-country customer and channel sharing gives us a significant competitive advantage.

At the core of our success are our people. Our ability to attract and retain top global talent in our milling business allows us to consolidate our position and lay the foundation for future growth.

Our technical team follows a competitive bidding system for all our capital projects and analyses bids on their relative merits, while challenging the project partners to rethink prevailing ideas and work out the most optimum technical and capital efficient solution.

Our millers and engineers have set up and operate some of the most efficient milling plants in Africa. They have turned around our acquisitions – CFM and Amber Foods – well ahead of expected timelines.

Our salesforce has developed deep domain knowledge of the flour industry and

works with the technical team to efficiently segment the markets and tailor-make products to address all consumer segments. A good example has been our recent entry into the pasta market in Nigeria where our sales team identified an unmet market need while the technical team debottlenecked the pasta plant in a few months and improved efficiencies. This has allowed us to take the acquired asset to full capacity utilisation within six months.

Today, we have built a strong and stable foundation for our milling business and are well positioned to be a leading wheat milling and pasta manufacturing company across Sub-Saharan Africa.

## More about the author: Saurabh Mehra

Saurabh Mehra joined Olam in 1999 in Ghana. From 1999 to 2006, he held various responsibilities in Ghana including origination and country management. In 2006, Saurabh moved to London to manage the physical and futures trading books for West African cocoa. In 2009, he joined the Grains team and relocated to Nigeria to oversee the Crown Flour Mill acquisition. Saurabh then moved to Singapore in July 2013 to take over the role of Business Head – Wheat Milling and is now based in Nyon, Switzerland. Saurabh holds a Bachelor of Engineering degree from Delhi College of Engineering, Delhi, and an MBA (Finance & Marketing) from MDI, Gurgaon, India.



## Differentiating through process and engineering excellence

By Richard Hedges, Senior Vice President, Olam Grains

Our entry into grains manufacturing was marked with the acquisition of Crown Flour Mill (CFM) in January 2010. With five mills at two sites in Lagos and Warri Nigeria, we had acquired a theoretical daily grind of 1,590 MT of wheat. However, at the point of handover, the mills had sub-optimal performances with up to 22% downtime. They were also running under capacity and produced a low flour yield.

Today, not only have we significantly upped capacity in Nigeria, we have also successfully expanded across Sub-Saharan Africa with mills in Ghana, Senegal and Cameroon, all of which have achieved world-class productivity and product output. With our recent purchase of BUA Group's milling and pasta assets, our daily wheat grind now stands at 6,140 MT per day with a further 1,200 MT due to come on stream in Q4 2016. In less than six years, we have increased our milling capacity by five times, with significant productivity and cost efficiencies across the board.

Our operational success has been in large part due to a relentless focus on technical discipline and engineering efficiency. This applies to every aspect of our operations, be it in mill construction, raw material sourcing, milling or product innovation.

### Extracting efficiencies from the ground up

Over the last six years we have completed five major projects in four different countries. Each project has been on-time and on-budget. We did this by using the "bottom-up" approach for all projects, with



Above: Mill under construction in Port Harcourt, Nigeria.

team members on the ground planning and following through with entire projects, from costing to design to construction.

The key advantage of this approach is accuracy and ownership. The same team members who have the requisite experience from past projects are the ones who plan and commit to a fixed timeline and budget.

Our project teams have also been able to make significant improvements with each additional project we have taken on. For instance, in our 'sister' mills in Senegal and Cameroon, the team leveraged its experience from designing the Ghana mill and was able to reduce the building and machinery capital cost by 10%. Additionally, we were able to make more meticulous adjustments to layout, processes and systems in the planning stage to ensure the mills are hygienic (as infestation of finished

products can be a challenge in Sub-Saharan Africa due to its tropical climate and lack of cold storage and logistics facilities) and are easier to run, thereby reducing potential labour costs.

Even when it comes to mill design and machinery, the strength of our technical expertise has made a defining difference. The technical team's ability to compensate for process design capability shortfall from non-mainstream suppliers enabled us to source at a significant discount compared to their closest competitors.

### Saving on operational expenditure

In milling, wheat procurement makes up 75% of the entire production cost. With a capacity to mill 2 million MT of wheat every year, our ability to extract cost savings in wheat sourcing has a big financial impact.





Above: Quality control and inspection, Crown Flour Mill, Nigeria.

To tackle this, we first have to understand the kind of flour consumers want, which in turn determines the wheat and production processes needed.

As such, we regularly undertake market mapping to identify trends and corresponding variables between consumers and products so we are able to translate regional preferences into specific flour types. These can be varied – for example in Nigeria we sell up to 10 different flour types.

With market insight and the sourcing advantage from our global network, we are able to use wheats from mixed and varied origins, allowing us to maintain healthy gross margins in thinly priced competitive markets.

Additionally, we have developed strong internal expertise that has allowed us to move away from buying enzyme cocktails from additive suppliers that are used to improve flour quality, and we now use our own customised enzyme mixes. Our spread across four countries also means that our teams are able to share knowledge and best practice in enzyme use to produce and improve on the flour desired by our customers.

### Improving productivity

The backbone of our operational success is our strong milling and engineering team. Through their continual improvements, yields have increased by up to 5% at all mills. The uptimes at all our mills, including mills up to 30 years' old, are world-class and consistently achieve more than 99% uptime.

We have also optimised power consumption – a significant direct cost – by reducing power use in existing plants and designing for higher power efficiency in new plants. For instance, our Senegal

and Cameroon plants run with 25% lower power consumption than some of our older mills. Our initiatives to enable this include using renewables for lighting, section wise power monitoring, use of variable speed drives and single drives for multiple applications.

### Product innovation

Product innovation is another important component in improving operations. The milling industry in Sub-Saharan Africa is characterised by significant overcapacity, so before expanding our capacity, we needed to have a clear strategy for growth.

Coming up with new higher-value products has been part of this process. For instance, we launched a new premium brand using a unique technology which involved de-branning wheat prior to milling. We were able to come up with an extremely white and speck-free flour and semolina by passing the wheat over carborundum stones (a type of industrial abrasive material) to remove up to 3% of the bran, before subjecting it to traditional milling. We then leveraged the existing brand equity of the Mama Gold brand, a

well-known Olam rice brand, to launch this new flour product.

Our different actions to improve technical efficiencies collectively have enabled us to grow from strength to strength. As we continue to extract operating leverage from our network of mills, we envision further improvement in productivity, cost and product quality.

**“ In our ‘sister’ mills in Senegal and Cameroon, the team leveraged its experience from designing the Ghana mill and was able to reduce the building and machinery capital cost by 10%. ”**

Richard Hedges  
Senior Vice President, Olam Grains

### More about the author: Richard Hedges

Richard Hedges joined Olam Grains a year before it acquired Crown Flour Mill. Richard is responsible for all technical aspects of flour manufacturing (Quality, Efficiency, Reliability, Safety) across all milling sites in Nigeria and Ghana. He was also the technical lead in the Cameroon and Senegal wheat milling projects. In his 37 years in flour milling, he has worked with Allied Mills, Rank Hovis, Spillers Milling and ADM in various senior manufacturing roles. In 2003 he set up his own business, Hedges Technology, which built flour mills, powder handling and mixing plants for Ryvita, Warburtons, Biocatalyst and other blue chip UK companies. Richard is a Flour Milling Technologist from the Swiss Milling School, graduating in 1983 with the coveted Rene Buhler Award. He also holds an advanced milling certification from the National Association of British and Irish Flour Milling.



## Strong customer relationships as growth enabler in Nigeria

By Anurag Shukla, CEO, Crown Flour Mill

Nigeria is the largest importer of wheat in Sub-Saharan Africa. It has a growing population of 160 million, more than 50% of which is urbanised. Urbanisation has been moving at a steady clip of 3.8% over the past five years. Nigeria also has a young population with a median age of 18 years. Nigeria's demographics underpin growth in demand for downstream food products, such as bread, pasta, noodles and biscuits, which in turn support demand for the principal products of the milling industry – bread flour, pasta flour, noodle flour, confectionery flour and semolina.

The Nigerian flour market of approximately 3.2 million MT is worth more than US\$2.0 billion and is growing at a healthy pace of 3.5% per annum. Downstream products, such as pasta and noodles, are growing at 6-8%.

Both industry and market dynamics made a strong and compelling investment case for entry into wheat milling and subsequent expansion in Nigeria. The milling business has strong synergies with Olam's Packaged Foods business, where we now enjoy market leadership positions in downstream categories – biscuits and confectionery, beverages, noodles and seasonings.

### Customer focus

In January 2010, when we acquired Crown Flour Mill (CFM), it was ranked fourth in the industry with a very low market share and a focus largely on industrial consumers. Over the past six years, CFM has emerged as the second largest miller in Nigeria, with a strong presence across product categories and market segments.

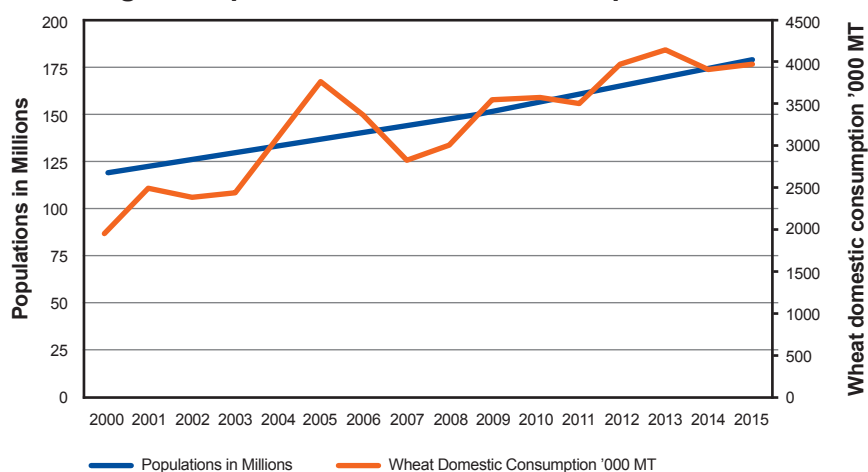
We have achieved this with a constant focus on improving product quality, manufacturing efficiency and product innovation. Most importantly, we have kept our customers at the very heart of our growth strategy.

Nigeria is a large country with diverse baking habits. To address this market, we develop a technical sales force by attracting the best from the baking industry, who deeply understands the requirements and the concerns of the bakers, both artisanal and industrial. The team works closely with different bakeries

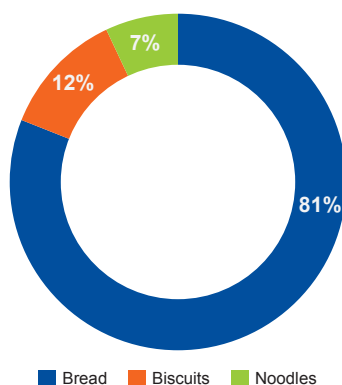


Above: Packing the Supreme brand flour in 50-kilogramme bags in Crown Flour Mill, Nigeria.

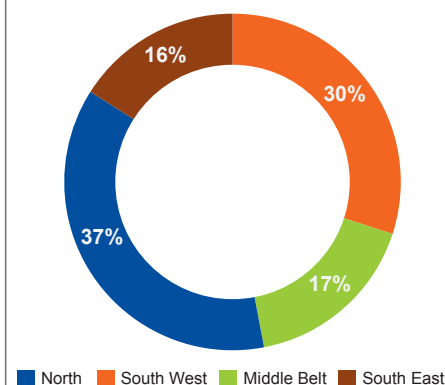
### Nigeria Population and Wheat Consumption Growth



### Flour Usage



### Bread Flour Consumption by Region





doing product trials and listening to consumer feedback. This feedback forms a crucial input into our product formulation strategy. By listening to feedback from bakers in each region, we have been able to tailor-make products that meet their specific requirements.

Our sales team prides itself on the deep and lasting relationships they have built with our channel partners – the dealers and wholesalers of Nigeria – through outreach programmes and celebratory events. For example, we hold dealer forums annually where we honour our channel partners, celebrate their achievements and pledge support in times of need. We have successfully cultivated these relationships to the extent that the team is now part of the dealers' fraternity. It is these strong customer relationships that allow us to continue to grow in Nigeria.

With the acquisition of Amber Foods, we are now also participating in the fast growing pasta segment. We are currently the second largest pasta player in the country and are confident of further consolidating and growing our position in this segment, bringing to bear the skills that we have acquired in the flour segment. Leveraging our customer relationships in flour, we have achieved



Above: Anurag Shukla (extreme left) presenting a token of appreciation to channel partner Yahuza & Sons at a dealers' forum in 2014.

100% capacity utilisation for the newly acquired pasta mill in a matter of a few months.

### Navigating recent challenges

Operating in Nigeria is not without its unique challenges. The political and economic challenges faced by the country in the past two years have had significant impact on all businesses in Nigeria. One of the critical issues has been the volatility

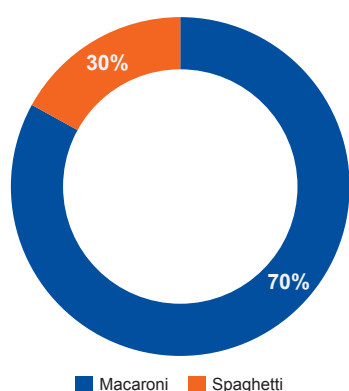
of the Nigerian naira, which has led to very tight dollar availability for all importers.

However, Olam as a group, given our diversified portfolio of businesses within Nigeria, has thus far been able to mitigate these risks effectively. We have a portfolio of export businesses which are dollar-generating and provide the required dollars to meet some of our wheat import obligations.

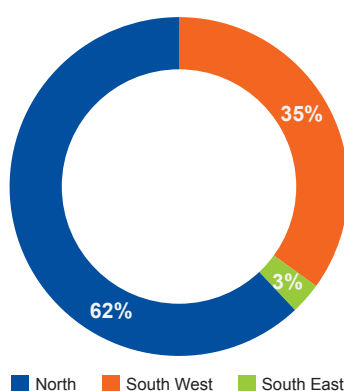
Apart from this internal currency 'hedge' and ability to generate dollars, we also have access to both local and dollar funding at competitive rates. All this put together has enabled us to navigate the recent volatility extremely well and we had been able to operate at our full capacity and also be able to support the enhanced requirements of the newly acquired assets.

In the foreseeable future, Nigeria is likely to remain as the largest milling operation in Africa for Olam. There is significant scope for consumption growth and on the back of our strong relationship with our consumers and channel partners, we are very confident of our continued success in Nigeria.

### Types of Pastas Consumed



### Pasta Consuming Regions in Nigeria



### More about the author: Anurag Shukla

Anurag Shukla is CEO of Crown Flour Mill (CFM) at Olam Nigeria. He joined the company in 2011 shortly after the acquisition of CFM by Olam. Anurag has more than 25 years of relevant experience in manufacturing, operations, project management, business development and marketing, having worked with Cadbury India for more than 13 years as well as in Firstsource, Medall Healthcare, Fosters and Britannia in India. He holds a Bachelor of Technology in Electronics and Electrical Communication Engineering from the Indian Institute of Technology Kharagpur and completed the Senior Management Program from the Indian Institute of Management Calcutta.



**“ Leveraging our customer relationships in flour, we have achieved 100% capacity utilisation for the newly acquired pasta mill in a matter of a few months. ”**

Anurag Shukla  
CEO, Crown Flour Mill



Above: Packing the BUA Pasta products brand flour in Amber Foods, Nigeria.

## Cross-country synergies: driving efficiency with strong business processes

By Sanjeev Goel, Head of Operations, Crown Flour Mill

Just six years after we entered the wheat milling business with one asset in one country, we now have a market leading presence in three countries and are targeting to build this even in the fourth and most recent market for our milling business. Our extraordinary pace of growth has been contingent on “bringing our assets together” by extracting synergies, while harmonising processes across the board.

Our strategy was as simple as it was effective. Test and incubate best practice processes at our base, in this case our Crown Flour Mill (CFM) assets in Nigeria, before replicating it elsewhere.

While simple, we had our work cut out for us. When we first acquired CFM in 2010, we were faced with a massive task. First, we were new to wheat milling, and even more crucially, there were no formal systems or processes in place at our acquired asset. We therefore had no blueprint for improving output in quality or quantity or indeed any way of accurately measuring improvement. To add to the task, CFM consisted of two mills 500 kilometres apart, a 1,050 MT mill in Tin

Can Lagos, and a 550 MT capacity mill in Warri, which made the logistics of change management all the more challenging.

Our first action was to acquire the expertise that we lacked in-house. We assembled a team comprising internal technical experts, systems and process experts who specialise in lean and six sigma tools and external experts in Business Process Mapping (BPM). A thorough and comprehensive review of current work processes was undertaken. The external experts were embedded directly with CFM’s in-house experts and heads of department to get a baseline of current workflow. This involved undertaking BPM for every single workflow, such as procurement, sales, milling and quality, and HR.

“ Our extraordinary pace of growth has been contingent on ‘bringing our assets together’ by extracting synergies, while harmonising processes across the board. ”

Sanjeev Goel  
Head of Operations, Crown Flour Mill

At the completion of the gruelling three-month exercise, we emerged with a step-by-step road map to establish best practice across both mills. This was followed with multiple adjustments and safe-proof tests to ensure we were covering all eventualities. Throughout this process, we ensured appropriate feedback and communication with our staff to identify the most optimum processes. This also enabled us to identify, upskill and develop a strong, core milling team who now forms the backbone of our Grains team. By January 2012, we had our road map ready. We then migrated our systems and processes into SAP, so they could be accurately captured, documented, and most importantly be transferable.

Today, our utilisation stands at 85% of installed capacity, which is 50% above where we started when we first acquired CFM. Quality improvements have also had a significant impact, and CFM is now the second largest flour milling business in Nigeria by volume, driven primarily by sales of our leading brand Mama Gold Flour.

In studying the original framework and processes, we were able to detect and eliminate many unnecessary functions, while plugging holes that led to lost time in the past and had translated into wasted material, time and money. Part of this included rightsizing the workforce and retooling workers for more value-



added activities. With a robust system of reporting, we continue to make incremental improvements on a daily basis.

This BPM in its entirety has since been successfully replicated in Ghana, Senegal and Cameroon. With the experience we gained at CFM and our team of external and in-house experts, we were able to implement and migrate to SAP processes far more quickly, with similarly encouraging improvements across the board.

The quantitative and qualitative improvements delivered in our mills have had positive effects over and above the significant monetary returns. It has added to Olam's reputation as effective change managers and improved investor confidence as we saw increased investments in the milling business.

Access to real-time data, through SAP, and availability of business intelligence tools allow our managers to conduct

rigorous market analysis and take timely decisions – all of which has gone a long way in establishing CFM as the second largest miller in Nigeria.

We are very pleased with the progress on the integration of Amber Foods, where our team is working hard to replicate the

same operating performance and bringing it to world-class levels. Six months after acquisition, capacity utilisation, uptime and extraction rates have improved significantly. The operating team is confident that the envisaged synergy impact can be achieved well ahead of initial projections.

## More about the author: Sanjeev Goel

Sanjeev Goel is Head of Operations at Crown Flour Mill (CFM) at Olam Nigeria. He joined Olam Nigeria in 2010 soon after CFM was acquired and now also heads the operations of the newly acquired mills from the BUA Group. Sanjeev was in charge of the completion of the expansion project in CFM and spearheaded the implementation of SAP and Business Intelligence reporting for Olam Grains across West Africa. Prior to joining Olam, he worked in various manufacturing and business roles with blue chip companies in India, such as Goodyear Tire, Jindal Stainless Steel and Huhtamaki PPL. Sanjeev has a Bachelor's degree in Mechanical Engineering and a post-graduate degree from the National Institute of Technology, Kurukshetra. He also holds a Master Black belt in Lean Six Sigma from the Indian Statistical Institute of Mumbai.



## Facts on Olam Wheat Milling

Countries present	Nigeria	Ghana	Senegal	Cameroon
Locations	Lagos, Warri, Kano, Port Harcourt	Tema	Dakar	Douala
Milling capacity (tonnes per day or TPD)	6,140	500	500	500
Pasta capacity (TPD):	700	-	-	-
Storage capacity (MT)	114,500	40,000	25,000	20,000
Product mix	Bread flour, Noodle flour, Biscuit flour, Semolina and Pasta	Bread flour, Confectionery flour, Biscuit flour and Pasta flour	Biscuit flour and Baguette flour	Biscuit flour, Baguette flour, Beignet flour and Bread Flour
Market position	No. 2	No. 2	Top 3	-

