

National Food Products Company & Industrium Group (Bin Hamoodah Family)

Plastic has Nine Lives

Nature of Business: Plastic packaging, manufacturing and distribution

Industry Sector: Food and beverages

Family Business History: 2nd Generation

Provenance: United Arab Emirates



Setting the Stage

An industrial enterprise, Industrium is part of a UAE food giant, the National Food Products Company (NFPC) established in 1971 as a partnership between the Bin Hamoodah family and the Antonios family.

NFPC is one of the largest producers of dairy, juice, water, bread and condiments in the UAE and the Gulf region, with a variety of products consumed daily by more than half of the total UAE population every single day. With exports to over 40 countries and 4,000 employees, NFPC is also considered as one of the region's largest employers.

To cater for its growing packaging requirements, in 1977 NFPC established Industrium, a plastic packaging company that manufactures in the UAE with 660 employees and distributes to 14 countries. Today, Industrium operates several business lines within its three manufacturing sites in Abu Dhabi, including core work with plastic, converting various types of plastic, food packaging, and transportation packaging. The start of Industrium in the food sector, with zero tolerance for errors, has shaped us into becoming one of the most efficient and effective industrial players in the market with an end-to-end approach to developing our products and solutions.

NFPC is part of the Bin Hamoodah Group, a third-generation family-owned business operating in the UAE since 1967. The Group was founded by His Excellency Faraj Ali Bin Hamoodah in partnership with his brothers, who alongside their children now represent over 30 family members. Today the Group consists of companies collectively owned by three family-owned entities, namely Ghanem Ali Bin Hamoodah & Sons LLC, Hamoodah Sons Holding LLC, and Faraj Bin Hamoodah Holding LLC. The Group is highly diversified and operates across



a wide range of sectors including agriculture, automotive, construction, engineering, finance, food products (NFPC), oil & gas, IT, manufacturing, and real estate.

The family business' purpose is aligned with the founder's vision to preserve the positive reputation of Bin Hamoodah family across generations through family harmony, and ensure they contribute to the economic and social development of the UAE society. This focus on contributing to society has been a driving force behind the family championing the environmental endeavours of Industrium.

Holding the Mirror

In 2013, the plastic waste problem was becoming a global concern for governments, NGOs, consumers and the private sector. In the UAE the plastic industry has had the fastest growth at 24% per annum over the past decade.¹ A typical UAE resident uses 450 plastic water bottles a year, making it the fourth highest level of bottled water consumption in

Giving a second life to plastic in the UAE



world.² A whopping 13 billion plastic bags are used annually, according to statistics from UAE's Ministry of Environment and Water, which adds up to annual total waste of about 913 kilograms per capita.

"As a producer of plastic products, we decided we needed to do something to help reduce the impact of plastic waste on the environment. The challenge for us was the fact that we were specialized in 'Food Packaging'; this meant that the plastic we use has to be 100% virgin and of food grade. Recycled plastic presents an unacceptable high risk of contamination; hence it cannot be used in our operation. Even the presence of recycled plastic is not tolerated in our Raw Material warehouses.

Another challenge was the fact that we are industrialist by nature: we don't like artisanal, temporary or one-off setups. If we have to do it, it has to be at an industrial scale. All this led to the conclusion that we needed a dedicated factory to make our shareholders' engagement with the environment a reality; and to make it sustainable, it had to be profitable.

The government is tackling plastic woes with the introduction of federal laws and resolutions. However, our role in the

private sector means we don't have a legislative directive or remit to proactively take action. Ultimately, the main impetus for this change came from the next generation family members and business executives. Economic boom and profits from plastic should be about sustainability; they should work for present and the future generations, the overall society and environment at large; not just for short-term profits", said Ali Bin Hamoodah, second-generation family member and next-generation leader.

Connecting the Dots

In November and December 2013, key decisions were taken and executed to set the project in motion: (1) hire a business leader to lead the project, (2) procure land to build the factory, (3) acquire all necessary licenses, and (4) procure a few processing and production lines.

On 1st January 2014, the Managing Director joined, and 15 days later the building contractor started working onsite to build the plant and set up the required utilities. In April, the plastic processing equipment was received and the first trial production took place on 17th May 2014, only five months from the start of the project, and while the building contractor was half way through the building process.

The recycling plant was eventually given the moniker Solid Green, and was up and running by 2014.

The initial concept of the project was to use waste plastic, mix it with wood powder and produce a composite material: WPC (Wood-Plastic Composite). The WPC would then be used to manufacture pallets. Soon after the trial production in May, Industrium came to the unfortunate conclusion that pallets made from WPC were a failure for many reasons, but primarily due to the brittleness of the material.

Following the failure of the WPC pallet project, the project was realigned towards different priorities: acquiring plastic scrap from different streams (municipal landfills, industries, etc), recycling it, and then using it to produce transportation packaging products. It was decided that Industrium would develop a line of WPC products related to the construction industry: outdoor flooring and decking solutions, fences, pergolas, skirting, etc, which is more in line with the traditional use of WPC. Both the realignment and the construction of the project were finished by the end of 2014. Perhaps most importantly, the project and the team received a major boost when the factory managed to break even in its first year of existence.

Creating Impacts

Today, Solid Green represents roughly 10% of the total revenue of Industrium and is profitable. It purchases thousands of metric tons of plastic waste from landfills and industrial operators, recycles it (shredding, washing, grinding, granulating) and uses the recycled plastic granules to produce a variety of transportation packaging products and a few recently introduced plastic products such as flower pots and egg-trays.

Employees are encouraged by Solid Green's achievements to date.

In the last five years, schools have visited the factory, which have both made a positive impact on the children and raised the awareness of next-generation leaders on environmental impacts and consciousness. In terms of business impact, Industrium has recently signed a long-term circular partnership agreement with all the large beverage and consumer goods brand owners in the UAE, whereby those large industries will send their plastic scrap to Solid Green and will buy it back as transportation packaging products.

Through its work, this family business actively contributes to many of the SDGs with a particular focus on SDG 12 (Responsible Consumption and Production). As Ali Bin Hamoodah states, *"the problem with plastic is not the rising production or consumption per se, but rather how it is consumed and produced. In other words, the consumption and production system. We want to do our share of 'responsible production' in plastic."*

"I feel so proud when I see trucks loaded with dirty plastic scrap entering from one side of the factory, and trucks loaded with fresh rugged plastic products exiting from the other side of the factory; giving a second life to a material which otherwise would have gone to the landfill".

- Hamzah Iqbal, Group CEO

Identifying Next Steps

In today's world, 'Recycling' is a generic term that is widely used without really noticing the important differences in meaning. There are four possible meanings of "Recycling" when viewed at an industrial scale:

1

Up-Cycling: Plastic coming from a 'sophisticated' product is reused to make a more 'sophisticated' product. For example, using the plastic from a bottle to produce a sweater.

2

Re-Cycling: Plastic coming from a product is reused to produce the same product. For example, using the plastic from a bottle to produce another bottle.

3

De-Cycling (also called Down-Cycling): Plastic coming from a 'sophisticated' product is reused to produce a less 'sophisticated' product. For example, using the plastic from a bottle to produce a pallet.

4

End-Cycling: Plastic exiting the cycle. For example, burning the scrap plastic to produce energy.

After having successfully developed the experience of plastic De-Cycling, i.e. transforming waste plastic from food packaging products into less sophisticated applications such as WPC and pallets, Solid Green is currently developing its Re-Cycling capacity. A key learning in advancing to this next step was building the capabilities and know-how needed to handle the unique complexities of De-cycling food packaging. Having mastered these complexities, Industrium is well on the way toward taking the next big leap in 'Recycling.'



Wissam El Hannoun

“We believe every package – regardless of where it comes from – has value and life beyond its initial use. If something can be recycled, it should be recycled. We want to help people everywhere understand how to do their part.”

Wissam El Hannoun, Plant Manager at Solid Green, standing next to production of plastic given a second life. Wissam joined the company in April 2014 as a technical manager.

Once the Re-Cycling process is ready, Solid Green plans to at least double its processing capacity over the next 3 years. By doubling its capacity, they are doubling the chances that plastic doesn't end up in landfills, but instead continues on in a second useful life.

Recycling plastic for life



1 Gulf Petrochemical and Chemical Association via www.pressreader.com/uae/khaleej-times/20190324/page/2
2 Bee'ah UAE (2010) Sustainability Report 2010