Case 19

Strata Manufacturing: Working to Empower Emiratis and Women of the UAE

Drivers of the Future of Manufacturing

- Advanced Data Analytics
- Cyber-Physical Production
- Circular Economy & Re-manufacturing
- Additive Manufacturing
- Cross-Domain Skills
- Global Value Chains
- Servicification
- Industrial Policy 2.0
- Manufacturing Regionalization
- Digital Infrastructure

Capabilities

Policies & Trends

Energy-based Economies
Least Developed Economies
Developing Economies
Developed or OECD countries

1. **Challenge Confronted**

From its early beginnings, a key business objective for Strata was to achieve an Emiratization rate of 50% by the end of 2015. Rather than filling jobs, this was about developing the training and leadership skills required by Emiratis to grow Strata to become a global leader in the aerospace sector.

Emiratization is a real challenge, though, and several obstacles have hindered Strata’s efforts:

- **Lack of interest in the manufacturing sector**
  Because most Emiratis prefer to work for the government rather than the private sector, there is a limited talent pool of skilled employees in Al Ain. Strata also faced challenges in attracting Emiratis to work in the aerospace sector due to the sector’s rigorous rules in delivering high-quality products on schedule.

- **Commuting to Al Ain city**
  Traditionally, Emiratis prefer to work close to their families, and those who live in neighbouring cities are reluctant to commute to Al Ain.

- **Limited pool of Emirati women interested to work in the aerospace industry**
  In Al Ain, a low percentage of Emirati women work in the private sector, and only a small proportion of female graduates have the technical skills required to join the aerospace industry. Also, many women perceive aerospace to be a male-dominated industry.

2. **Solution Used**

Strata has been supported in its Emiratization drive by the Abu Dhabi Tawteen Council (ADTC), a government entity set up in 2005 to develop Emirati talent and provide sustainable employment opportunities.

ADTC provides work placement and internship opportunities to Emirati’s by matching their qualifications with the requirements of employers in Abu Dhabi. The initiative is open to male and female Emirati’s, aged between 16 and 60 years, who are seeking work within the emirate of Abu Dhabi.

Strata set up the Learning, Training and Development Department to equip Emirati’s with the skills required to work in the aerospace industry and to attract new talent. The department introduced the following:

**An open-door policy for all Emirati’s seeking employment in the aerospace industry**
Strata offers a range of job opportunities and training programmes to people from all educational backgrounds.
Technical training for all Emiratis, regardless of their age

A public awareness campaign targeted at Emiratis
Focused on raising awareness of Strata’s role in building a sustainable and diversified national economy, the campaign was run in the local media, on social media, and at career fairs and school visits.

A vocational training programme for young Emiratis
Developed in partnership with Lockheed Martin Corp and the United Arab Emirates University (UAEU), this 22-month training course focuses on the manufacture of composites. There are four months of basic education and six months of practical training, both held at UAEU. The basic education modules deal with technical terminology, aerospace fundamentals and mathematics. The practical training covers the use of materials and equipment, manufacturing processes, health and safety procedures, cleanroom procedures, and the assembly of parts. The course ends with a work placement program at Strata – 1,700 practical hours over a period of 10 to 12 months – and then trainees can join Strata as aero-structure technicians.

A specialized training programme for Emirati engineers
Developed in partnership with Boeing and Airbus, this two-year programme for engineers is for Emirati graduates with a background in mechanical, aviation or manufacturing engineering. To gain experience in aerospace engineering, students complete a training period at Strata before moving to Airbus or Boeing for a one or two-year placement.

Rewards and incentives for Emirati employees
Emiratis are offered competitive salary packages with housing allowances and rewarded for high performance; this helps to attract new employees and increase the productivity of the existing workforce.

A dynamic and attractive workplace that offers vocational training and encourages career development

Flexible career opportunities to help Emirati women balance work and family life

3. Lessons Learned

1. Government policies, including Vision 2030 and an Emiratization policy, support the training and hiring of UAE nationals and encourage more women to study and work.

2. The programme benefitted from the participation of underrepresented groups, including women and minorities. While number of female employment candidates has increased, companies still need to offer flexibility to meet the greater challenges of women to balance work and life.

3. A variety of training programmes targeted at different sections of the Emirati population – manufacturing training to all interested citizens, vocational training for youth, and specialized training for engineers – provide the key to building capabilities in aerospace.
Abu Dhabi is an emirate with its sights set firmly on the future. Thanks to the UAE’s visionary leadership and its abundance of oil and natural gas, the emirate has fast become a thriving financial, business and tourism hub. It has developed rapidly over the past 40 years to emerge as a leading player on the global and regional stage – and it is now in pursuit of economic diversification and long-term sustainable growth.

Abu Dhabi is the largest of the UAE’s seven emirates, and is home to the country’s capital city. Bordered by Saudi Arabia, Oman and the Arabian Gulf, it consists of three main regions: the capital city of Abu Dhabi; the Eastern Region, which includes Al Ain; and the Western Region, known as Al Gharbia. As of 2011, the population of Abu Dhabi was 2.1 million, of which around 455,000 are UAE Nationals. This makes Abu Dhabi home to the largest percentage of Emirati’s in the UAE, estimated at 21.1%.

For the past 10 years, Abu Dhabi has been reducing its reliance on oil and gas. The turning point was in 2007 when the government launched the Abu Dhabi Economic Vision 2030, which provides a comprehensive plan for diversifying into sustainable industries.

Building on the achievements of the late Sheikh Zayed bin Sultan Al Nahyan, Founding President of the UAE and former ruler of Abu Dhabi, and the vision of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE and Ruler of Abu Dhabi, Vision 2030 became a road map for the evolution of the local economy. The trailblazing plan aims to achieve the following by 2030:

- A large empowered private sector
- A sustainable knowledge-based economy
- An optimal, transparent regulatory environment
- A continuation of strong and diverse international relationships
- The optimization of the Emirate’s resources
- Premium education, healthcare and infrastructure assets
- Complete international and domestic security
- Maintaining Abu Dhabi’s values, culture and heritage
- A significant and ongoing contribution to the federation of the UAE

As Abu Dhabi eyes an oil-free future, it is making good progress towards its switch from natural resources to a knowledge-based economy. Vision 2030 singles out several industry sectors that can help build a more sustainable and diversified economy, and aerospace was identified as one of those sectors, due to the country’s competitive advantages in terms of geographic location and investments.

The UAE aerospace sector has recorded significant growth in the past decade, it has a favourable geographic location, and it is home to the Abu Dhabi-owned Etihad Airways. Abu Dhabi has the potential to attract huge investments and produce aircraft parts on a global scale by partnering with leading aircraft manufacturers such as Boeing, Airbus and Lockheed Martin.

In response to Vision 2030, a wave of new companies was established in Abu Dhabi to provide aviation-focused services to the aerospace industry. Among them was Strata Manufacturing, which opened its advanced composite aero-structures manufacturing facility in Al Ain in 2010.
Owned by Mubadala Development Company, Strata produces high-quality component aircraft products for original equipment manufacturers. Strata was established to meet the growing demand from manufacturers for the next generation aircraft that deliver improved fuel efficiency, reduced maintenance costs and increased operating times – and today it continues to deliver innovative solutions that meet the needs of the 21st century aerospace industry.

Strata was the first major company to open in the Nibras Al Ain Aerospace Park, a joint venture between Mubadala Development Company and Abu Dhabi Airports Company (ADAC). The aerospace hub, which covers an area of five square kilometres, was developed in line with Vision 2030 to support sustainable aviation and aerospace sectors. Nibras has helped to increase industrial and economic activity in Al Ain, and by 2030 it is expected to create 10,000 new jobs and help increase the local population to one million.³

Known as the “Garden City”, Al Ain is the fourth largest city in the UAE and has an estimated population of nearly 596,000. However, it has always had a limited availability of private sector jobs, particularly for women, despite being home to the UAE’s largest and oldest university, the United Arab Emirates University (UAEU).

Employment opportunities in Al Ain are scarce and limited to positions in government and small businesses, which opened great opportunities for the private sector. Guided by Vision 2030 and Abu Dhabi’s Emiratization policy, Strata is actively targeting the recruitment of Emiratis, both men and women, in Al Ain.

Emiratization is a nationwide initiative by the UAE government to create sustainable employment opportunities for Emiratis, and it is a key component of Vision 2030.

The Abu Dhabi government is actively encouraging Emiratization across the public and private sectors, and it is making significant progress. Given the strategic importance of the aviation and aerospace sectors, Strata was mandated to increase its Emiratization rate to 50% by 2015.

The role of Emirati women in the UAE workplace has changed considerably during the past decade. Women have been empowered and encouraged to work by the UAE government, and measures have been introduced to eliminate discrimination and achieve equality in all industries. Their contribution to the sustainable economic development of Abu Dhabi is highly recognized, and both the public and private sectors actively encourage it.

As well as an encouraging attitude towards women empowerment, there has been an increase in the educational and career achievements of female Emiratis. Females represent nearly half of all registered students in more than 1,250 schools across the UAE, and make up at least 60% of students enrolled in higher education programmes. Women account for 28% of the UAE workforce and hold 66% of all public sector jobs, of which 30% are leadership and decision-making roles.⁴

### Key Outcomes

Strata’s initiatives have been a success. As well as increasing its number of Emirati employees, Strata has achieved remarkable progress in empowering Emirati women.

- 48% of its workforce is Emirati, and Emirati women account for 86% of this figure (December 2015). In Strata’s manufacturing and assembly department, Emirati women account for 19 of the 40 team leaders and two of the eight supervisors. Emirati women head both the supply chain and human capital departments.
- A female Emirati employee is responsible for quality on Strata’s B787 and B777 vertical and horizontal ribs on behalf of Boeing.
• A female Emirati is the first engineer to achieve an NDT (Non-Destructive Testing) Level 3 x-ray qualification.

Drivers & Enablers

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<th>Partnership between business and government</th>
<th>Hiring and training local and female candidates</th>
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= Employment
  • Skill enhancement
  • Knowledge transfer
  • Gender parity

Barriers

• In the future, Strata will need to maintain the Emiratization rate in the company, but this requires a nationwide effort to change the mindset of Emirati jobseekers by promoting manufacturing and private sector job opportunities.

• First and foremost, the UAE needs to address the differences between working conditions in the private and public sectors, and accelerate efforts to close the gender gap in the industrial sector. This may not happen overnight but it can, and will be done in the near future.

1 Statistics Centre, Abu Dhabi
2 Abu Dhabi Economic Vision 2030
3 Plan Al Ain 2030
4 The Crown Prince Court website, www.cpc.gov.ae