



UNITED ARAB EMIRATES  
MINISTRY OF INDUSTRY  
& ADVANCED TECHNOLOGY

# Industrial Investment Opportunities



A photograph of a large-scale aeroponic farming system inside a greenhouse. The system consists of long, narrow white vertical towers filled with green leafy plants, likely lettuce. These towers are supported by a network of green circular reservoirs on the floor. The greenhouse has a high, arched metal frame with a translucent covering, and the floor is a light-colored concrete. The perspective is from a low angle, looking down a long aisle between the rows of towers, creating a sense of depth. The text "Aeroponic Farming Systems" is overlaid in white on a semi-transparent dark band across the middle of the image.

# Aeroponic Farming Systems

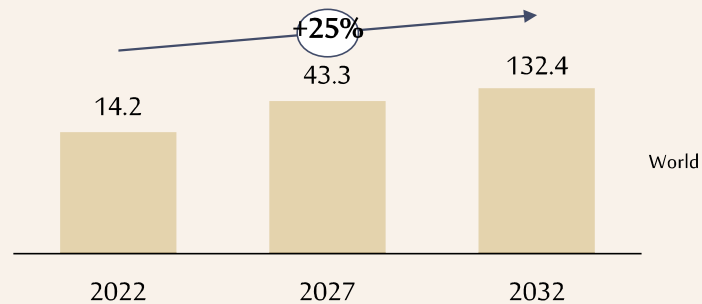
## Aeroponic Farming Systems

Aeroponic farming systems assembly include multiple components that can be either imported or locally produced

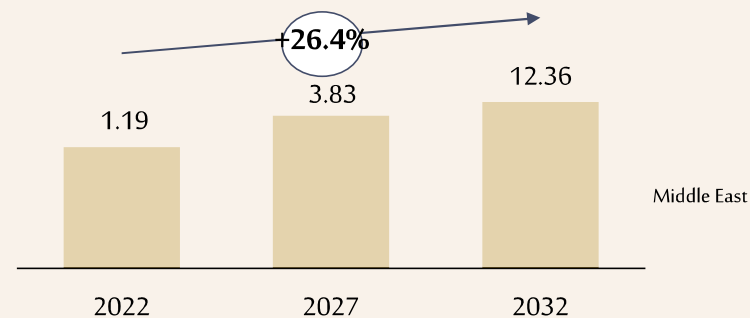
### Investment case

- Setup large scale aeroponic farming systems assembly line in the UAE
- Investment size = AED 64.2 Mn
- Plant capacity = 40,000T per year
- Expected IRR = 19.5%
- Expected NPV = AED 77 Mn

### Global Market Size 2022 – 2032 (Bn AED)



### Regional Market Size 2022 – 2032 (Bn AED)

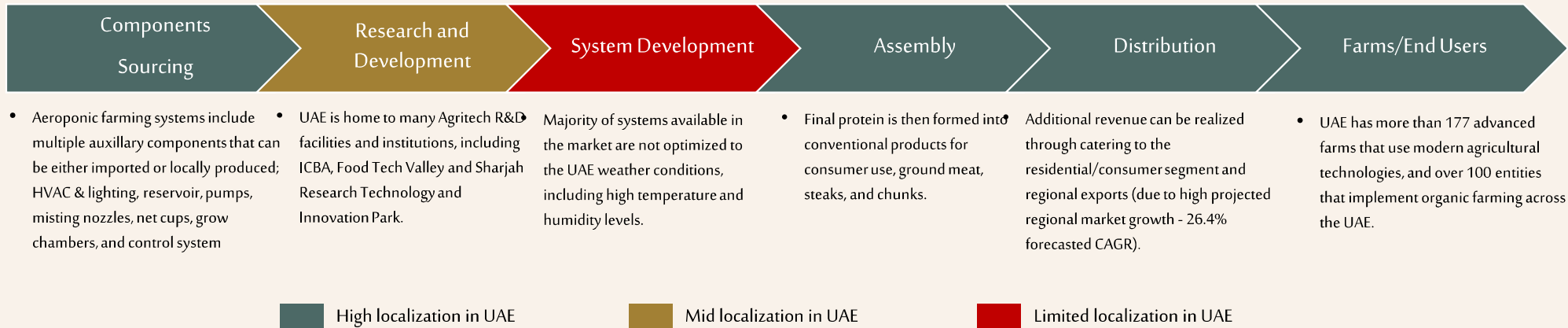


### Global trends & demand drivers

- Main drivers include urbanization, declining size of arable land, and growing organic food popularity
- Increase in investments and partnerships between farms and technology providers, which also boosts growth in the global vertical farming market.
- Advancements in key enabling technologies, including light-emitting diode (LED) and HVAC technologies.
- Strong growth rate (26% CAGR) for Aeroponic systems adoption, due to the lower water usage, higher crop yield, absence of pesticides, and zero harmful waste production in the environment.
- Regional focus on food security, supply chain resilience, and import dependency
- Projected increase in water scarcity; around half of the expected top 30 most water-stressed countries in 2040 are in the Middle East
- Very limited and declining arable land, particularly across the GCC region (e.g., Kuwait 0.45%, UAE 0.6%, Qatar 1.2%, and Saudi Arabia 1.5%).

## Aeroponic Farming Systems

### Value Chain Analysis



### Value proposition

- UAE is the second highest consumer of fresh produce in the GCC, with 90% of its food requirements being currently imported
- UAE is targeting to become the world's most food secure nation by 2051; there is an exponential increase in capital investments in the agriculture sector in the UAE
- Aeroponic systems consume around 90% less water compared to other modern farming technologies (e.g. Hydroponic), making them ideal for the UAE and the broader GCC region
- Aeroponic systems specifically designed for the UAE harsh environment using locally-sourced sustainable material would improve overall yield, quality and food safety
- UAE is a global food logistics hub, with food trade exceeding \$27 billion annually

### Enabling Entities

- **Food Tech Valley:** Home to four key clusters: agricultural technology and engineering, a food innovation centre, R&D facilities, and an advanced smart food logistics hub
- **Abu Dhabi Investment Office:** Offers financial support (rebates on investments, key cost centres, innovation cost, utility costs) and non-financial support (land location, regulatory and strategic advice)
- **F&B Business Group:** Facilitates engagement on potential partnerships and distribution contracts with different players
- **EDB:** Competitive debt pricing will help lower WACC and in return improve Internal Rate of Return and pay back period
- **MolAT:** Collaborating with the relevant federal and local entities to further enable this investment opportunity