

## AlphaGrow: AI-Powered Vertical Farming Solutions

### Preliminary Opportunity Brief for Strategic Chinese Partner

#### ◆ 1. Project Overview

AlphaGrow is a transformative Agritech initiative that deploys AI-driven vertical farming systems tailored for urban environments. It integrates artificial intelligence, IoT, and data automation to optimize crop yield, reduce operational inputs, and achieve sustainability in food production. The solution addresses three global pressures: food insecurity, climate resilience, and urbanization.

#### ◆ 2. Strategic Objectives

- Launch two fully functional AI-optimized urban vertical farms within 30 months.
- Increase yield per square meter by 30% over traditional vertical farms using AI control.
- Cut energy consumption of indoor farms by 20% through smart automation.
- Support national smart-city strategies by integrating vertical farms into urban planning.
- Capture a 15% market share in the MENA smart agriculture market by 2028.