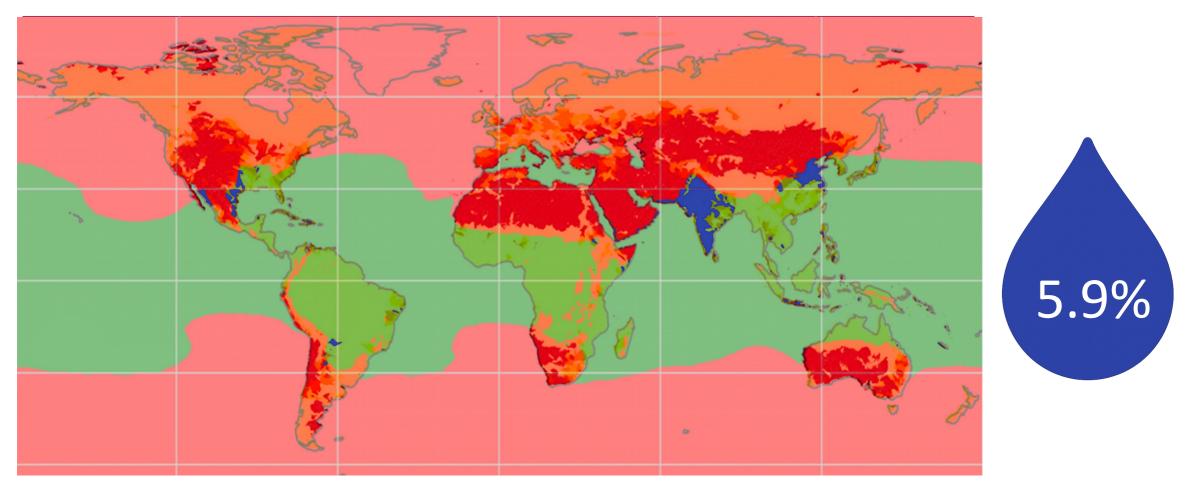


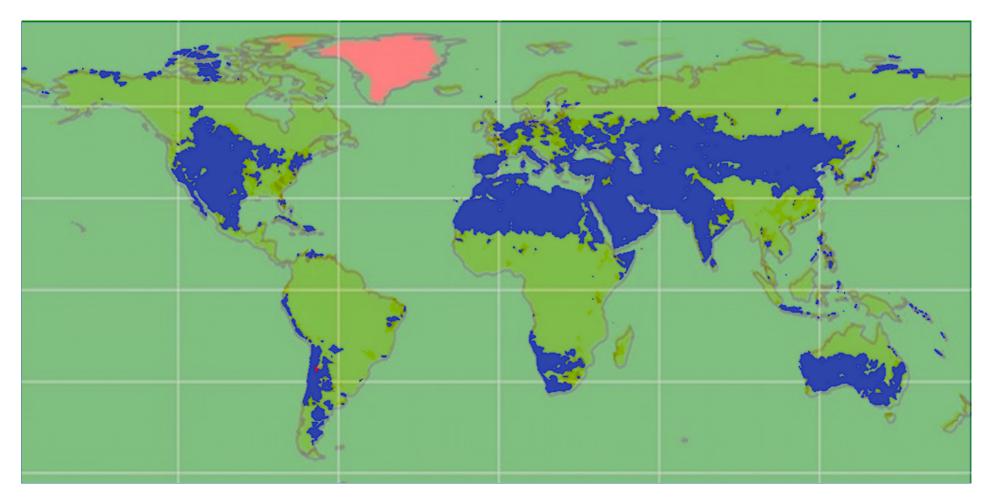
## Problem: Current AWG Systems Can Reliably Meet Only 90% of Design Capacity in 6% of Water Stressed Areas





## Solution: WaHa Vaporator® Systems Can Meet > 90% of Design Capacity in ~100% of Water-stressed Areas







# The WaHa Vaporator® - An Engineering Breakthrough in Solid Desiccant Regeneration Efficiency



 Utilizes a high-efficiency heat pump vs. energyintensive electric resistive heat or natural gas-fired hea

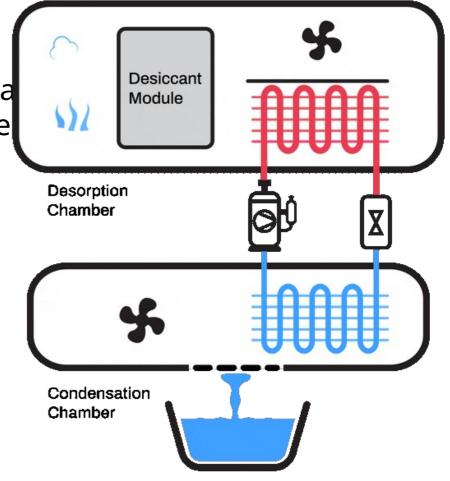
Proprietary MOF matrix construction for the D module

• Works in all climates (-20°C to 55°C, 7% RH+)

Built primarily with off-the-shelf components

 Waste heat is a viable energy source, but it is sitedependent

Patent portfolio: 14 families, 22 grants



## Traction and Validation – WaHa Vaporator®24L Envisioned Product Line

WaHo

Personal 4-16 L/day Point of Use 20-50 L/day

Mobile 50 L/day Residential/ Commercial 100-300 L/day

Industrial 1-20K L/day













- Indoor Integrated Pre-production Prototype 25L
- Unveiled at WETEX 2025, Dubai
- Followed >1 Year of Rigorous Third-party Testing of an Engineering Prototype Outdoors At Khalifa University Under the Auspices of TAQA
- 25 Preorders Secured For Commercial Trials
- Large orders on the horizon

## Representative Applications and Early Use Cases



#### **Built Environment**

- Drinking Water
- Air Conditioning
- Indoor Air Quality
- Real Estate Development

#### Agriculture

- Traditional Agriculture
- Controlled Environment Agriculture
- Food & Grain Drying

#### Industry

- Specialty Dehumidification
- Compressed Air Energy Storage
- Make-up Water for Data Centers

#### Medical

- Medical Device Dialysis Water
- Sterile Water for Injection

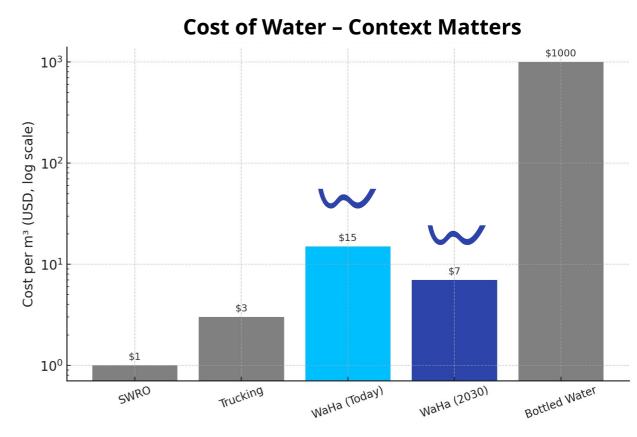
#### **Defense & Resilience**

- Military
- Disaster Relief

### Competition and Economics of Produced Water



- **SWRO** \$0.50–\$1.00/m³ (but only with billion-dollar plants + pipelines)
- **Bottled water** \$500–\$2,000/m<sup>3</sup>
- **WaHa today** \$15/m³, target <\$7/m³ by 2030
- Context matters LCOW is only one dimension
  - Purity and Taste
  - Resilience
  - Speed and Flexibility
  - Scalability



Not competing with municipal water — solving a different problem.

## Competitive Edge: Burgeoning Patent Portfolio



Patent Family	Description	Grants
•		
Metal Organic Frameworks & MTV Strategy for	Compositions using multivariate and single-linker metal-organic frameworks for gas/fluid	7
Water Capture	containment, water harvesting, and purification. Combines 3 individual patent families from UCB.	
Heat Pump Based Water Harvester	Energy-efficient water harvesting system using heat pump technology.	2
Two Chamber Water Harvester	Dual-chamber water harvester for standalone or integrated operation in refrigerated appliances.	2
One Chamber Water Harvester	Compact, fully enclosed single-chamber water harvester.	1
Climate-Adjustable Water Harvester	Water harvester with selectable adsorption thresholds based on energy cost and water availability.	3
High Efficiency Water Harvester	Water harvester with concurrent mode switching for minimal energy requirements.	1
Dehumidification-Humidification System	System for dehumidifying and humidifying outdoor or recirculated indoor air.	
Reduced Energy Cost Water Harvesting System	Implementation of a passive heat exchanger in a water harvester designed to reduce heat penalty and energy cost per liter of water collected.	1
Low Dew Point Air Dehumidification System	System for generating atmospheric and other gases with very low dew points.	
Cold Start Water Harvesting System	Subcool coil to initiate start of the water harvester.	
Water Harvester Adsorption Enthalpy Removal System	Separate latent heat from sensible avoiding heat release into the air stream.	1
Desiccant Composition & Assembly	Desiccant formulations for low sensible heat penalty and high-water capacity and assembly process for desiccant modules.	
14 Patent Families (11 owned +		24 Grants
3 UCB licensed)		60 Pending

Confidential

### Competitive Edge: Growing Portfolio of Global Partners



**Sales** 



**Academic** 







Water









**MOF Synthesis** 







**Dehumidification** 







**Air Conditioning** 









**Engineering** 





### Competitive Edge: Leadership Strength

Visionary Founder

#### Professor Omar M. Yaghi

- 2025 Nobel Laureate in Chemistry for Work on MOFs
- James and Neeltje Tretter Chair, University of California, Berkeley
- Professor of Chemistry, UC, Berkeley

#### Leadership Team



Frank R. Ramirez, JD, MBA

**CEO & Board of Directors** 

Founded, led, and built 3 companies, pioneered thermal energy storage market and raised \$140M in capital



Eugene Kapustin, PhD

CTO

Novel desiccant design & synthesis. Desiccant regeneration expert 15 patents



Dan Chandler, PhD

COO

30+ years in product commercialization and engineering Scaled global operations, led 400+ successful product launches



Michael Phillips, JD (Chair) Christian Thirion, PhD Sudhir Joshi, PhD Laura Smoliar, PhD





Chris Kay

#### **President**

Started & built 8 companies. 2 successful exits Led multiple teams in R&D, Consulting, Quality, and IT @ HP



David S. Kuo, PhD

#### **EVP, Engineering**

Thermal Science Heat Transfer expert, Adv. Product Design 120 Patents

