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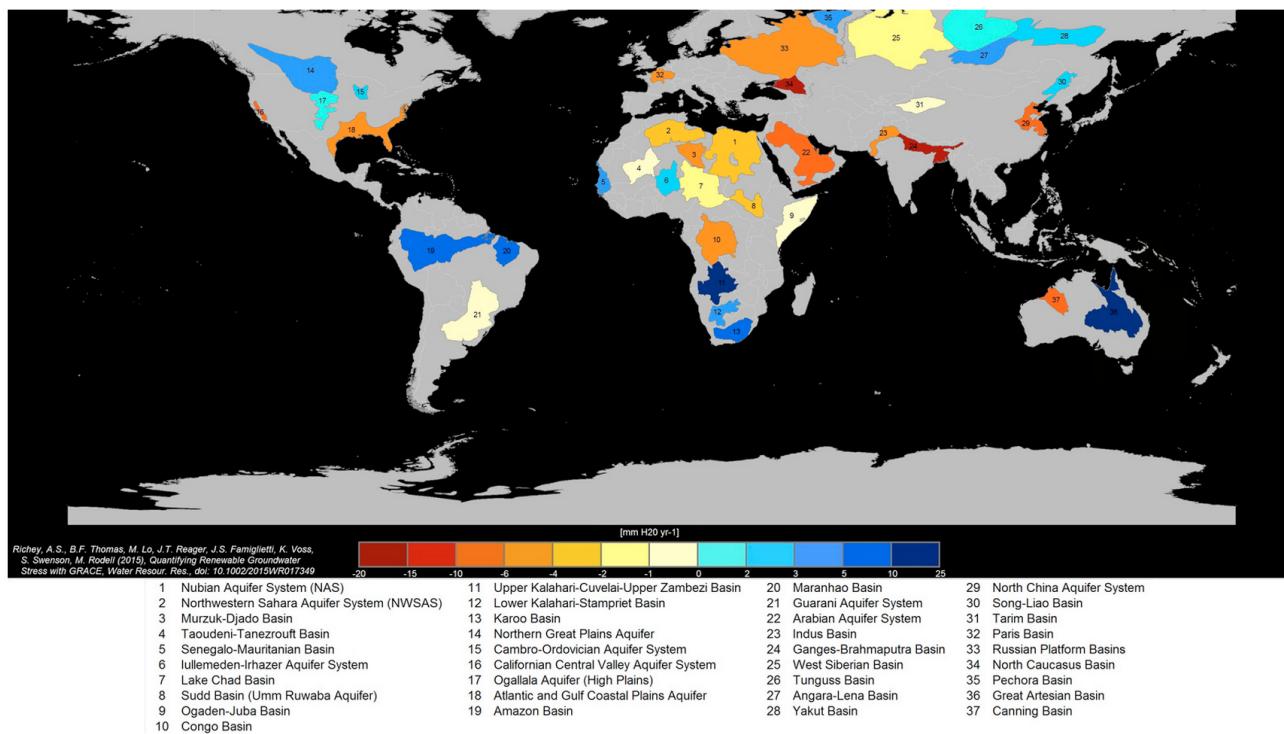
BUSINESS PLAN

**WE ARE DEVELOPING
THE UNIVERSAL
LANGUAGE FOR
AGRICULTURE.**

WHY? PEAK EVERYTHING

NEWS | JUNE 16, 2015

Study: Third of Big Groundwater Basins in Distress



Peak soil: industrial civilisation is on the verge of eating itself

New research on land, oil, bees and climate change points to imminent global food crisis without urgent action



MISSION

Isabel's goal is to dramatically reduce water consumption globally by utilizing exponential technologies in the agriculture sector.

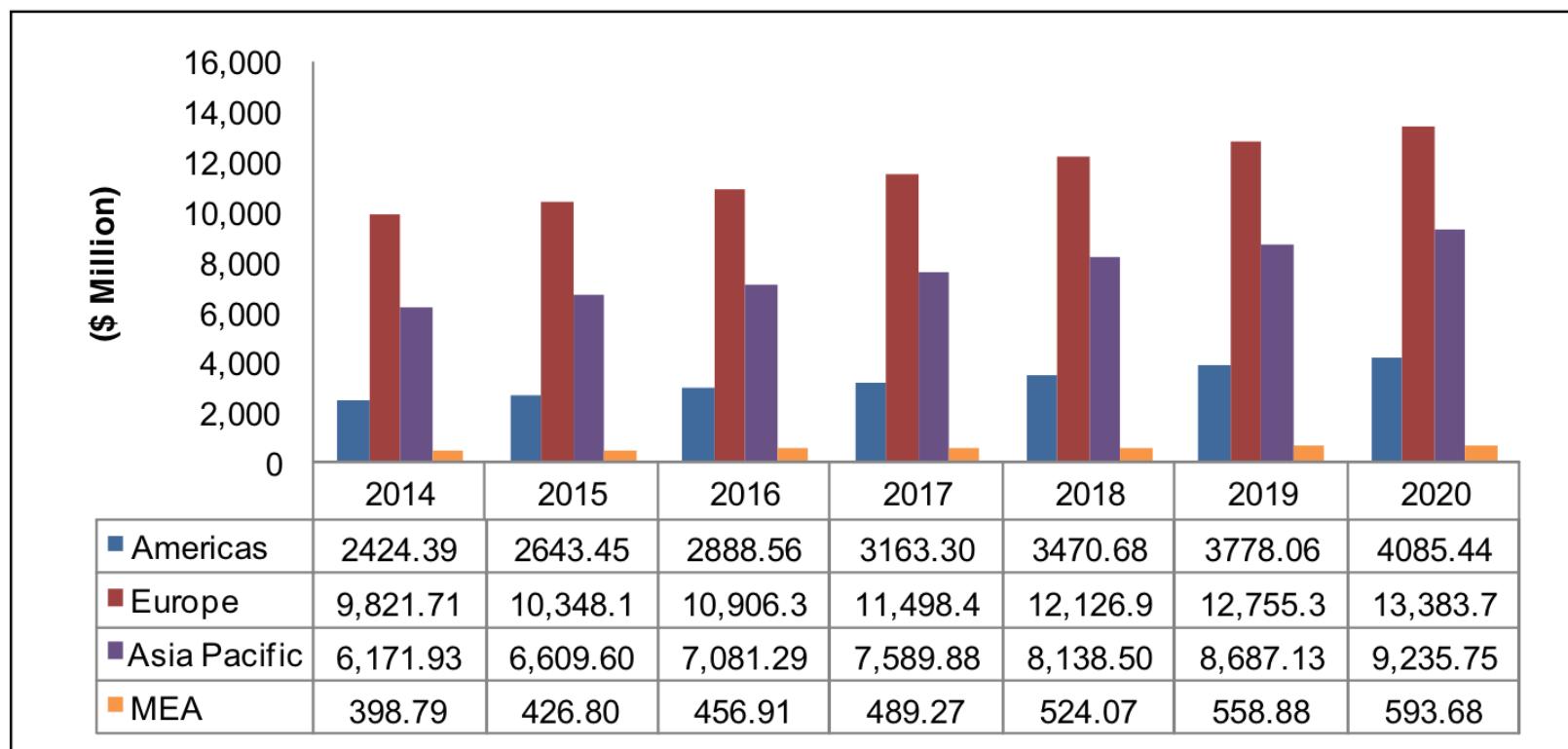
- We are developing hardware & software to accelerate optimal methods of vertical farming, artificial intelligence and machine learning.**
- Our vertical methods of farming use up to 95% less water, grow produce 2x faster, and are pesticide free.**
- We've created a Universal Growth Protocol (UGP) platform that allows vertical/indoor growers to share and sell optimal information for maximum resource efficiency, this is first deployed in our MVK's (Modular Village Kits).**

As the worlds population grows and resources dwindle, we need to radically do more with less. The Internet of Food is here, are you ready?

MARKET DATA

The global hydroponics crop value is anticipated to grow from \$18.8 billion in 2014 to \$27.29 billion in 2020 at an estimated CAGR of 6.39% from 2015 to 2020.

COMPARING THE HYDROPONIC CROP VALUE BY REGION
(\$MILLION), 2015-2020



Source: BIS Research

BUSINESS MODEL

Data & User acquisition => Debt finance control hardware. Bundle costs and markup on the hardware with monthly software subscription payments for 24 months. After 24 months, user continues to pay only for software subscription.

MVK's @ 30k a peice, making Isabel 12x the fiscal return of our competitors, allowing for developing countries to enter the efficient agricultural market.



COMPETITION

Hoogendorn, Privus, Argus, Wadsworth, Freight Farms, Growtainer, CropBox, Podponics, Grobot, Bitponics, Osmobot, Sustainable Microfarms Genesis, Atlas Scientific (Probe Provider), Priva (Large Scale Greenhouse Automation), Argus (Large Scale Greenhouse Automation).

E.g. 4 zone environmental control & water management system from Hoogendorn = \$80,000.

4 zone complete system from Isabel costs \$4,000 + \$30/month/zone.

PROJECTION

Between lettuce, tomatoes, peppers and cucumbers **63,876** acres of indoor agricultural space. More specifically, 15 commercial-scale vertical farms are in operation today with another 30 to be added this year alone. There were zero commercial scale vertical farms four years ago.

Air Management: **\$2000/acre.**

Water management: **\$2000/acre.**

Data service: **\$120/month/acre avg.**

Existing CEA producers: If we get 10% penetration in the first 5 years that's over **\$25.5M** in hardware sales; **\$9.1M** every year in software subscriptions.

New CEA producers: Given CEA production increases by a 6.39% CAGR from 2016 to 2021, there will be 34,643 new acres of CEA space by year's end 2020. Assuming a 25% penetration for all new CEA production space by 2020, Isabel will earn an additional \$34.6M in hardware sales and \$12.4M in annual reoccurring revenue from software subscriptions.

NEEDS

\$250k

\$100k vertical farming research facility/office generates \$100k gross revenue per year.

\$35k for 20 acres or equivalent of hardware and data service.

\$25k customer acquisition travel & lodging.

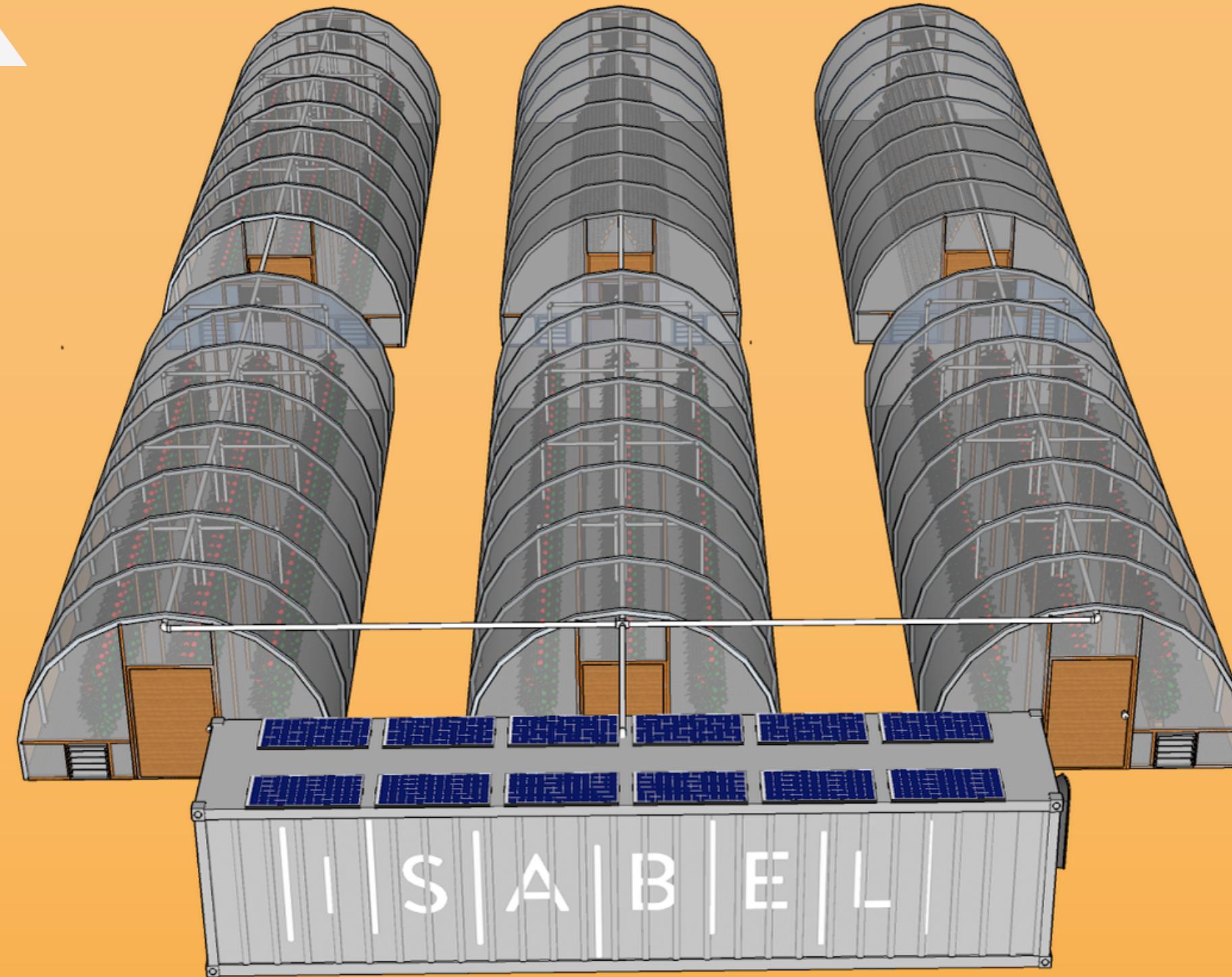
\$25k legal, insurance & marketing.

\$20k Living expenses.

\$20k CTO.

\$25k contingency.

MVK



ISABEL

PROPRIETARY & CONFIDENTIAL

23 JULY 2015

MVK BREAKDOWN

Container Hub:

300 ft of PVC: \$250
3 x 185 W Solar Panels: \$585
2 x 100 Gallon Water Tank: \$345.98
2 years supply of 2 part fertilizer: \$150
1-2 year supply of seeds (e.g. collards and tomatoes): \$71 and \$43.25 respectively
Container: \$1750
BRCK modem/router: \$250
3 x 6 - out Modbus relays: \$567
Isabel I/O Controller: \$269
1-2 year supply acid: \$75
1-2 year supply base: \$75
High Volume water pump: \$300
EC & pH probe: \$150
LECA (Reusable grow medium): \$100
Wire/Electrical: \$589
Tesla Power wall (7kwh): \$3000

Total per container: \$8570

Greenhouses:

Frame: \$.55/sq. ft.
Grow equipment: \$2.8/sq. ft.
Ventilation: \$.33/sq. ft.
Temp/RH Sensors: \$.13/sq. ft.
Total greenhouse sq. ft./MVK: 3000
Cost of Greenhouses/MVK: \$11,430

Total: \$20,000
Markup: \$10,000
Retail price/MVK: \$30,000

Description of MVK: The Modular Village Kit (MVK) is conceived as a community development device that provides fresh food, clean water and renewable energy to communities worldwide. MVK's combine proven high tunnel greenhouse designs, Simplified Hydroponics (SH), solar technology and innovative water filtration systems to create affordable, functional and accessible "community growth systems". Each MVK is housed in a 40 ft. High Cube shipping container which contains enough equipment to produce over 200 lbs. per day of fresh tomatoes, peppers, aubergines, legumes and leaf crops, 7 kwh per day of electricity and unlimited clean water. to automate fertigation by measuring the difference between leaf and air temperature.

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MVK BREAKDOWN

Community container hub:

Greenhouse Control: All agricultural automation happens from the community container hub. Each container will come equipped with a laptop, cellular router and Isabel I/O greenhouse automation system. Each greenhouse will be automated via the Isabel I/O greenhouse control system. With 1 or 2 strategically placed temperature & humidity sensors per greenhouse, Isabel is able to automate each greenhouse environment by maintaining ideal vapor pressure deficit (VPD) levels. Using a crop water stress algorithm, Isabel is also able to automate fertigation by measuring the difference between leaf and air temperature.

Water Filtration: Since hydroponics requires a quality water source, the MVK has water filtration equipment installed. The exact method of filtration is currently under investigation. The filtered water is stored in a main reservoir located inside the community container hub. When crop irrigation is triggered by Isabel, the fresh water is automatically mixed with a stock solution before fertigating greenhouse crops. The clean water reservoir also serves as a clean water source that can be accessed by the community by a faucet on the outside of the container.

Potential energy production: The MVK is envisioned to have 3 x 195 watt solar panels mounted on the roof to power the pumps, air conditioning and automation in the container hub. This scheme is capable of producing approximately 7 kwh.

Greenhouses:

The greenhouse design has been conceived to be 14 m x 5 m x 3 m. The target price per sq. ft. of each greenhouse frame is \$.50 with added per sq. ft. costs of \$3.13 for additional growing equipment. See article for reference.

<http://sedtapp.psu.edu/humanitarian/papers/Pack2012a.pdf>

Grow Systems: Each greenhouse will be equipped with semi-recirculating hydroponic systems. Vine crops will be grown in a modified Kratky-style bucket system while leaf crops will be grow in an A-frame noncirculating modified NFT system (see pg.11 of <http://www.hortis-europe.net/files/documenti/inglese/e-books/hortis-soilless-eng.pdf>.)

3.) Potential Productivity: Further research is needed to determine yield data for a larger variety of crops. However, thanks to a feasibility study conducted in partnership with the University of Bologna professors Francesco Orsini and Giovani Gianquinto, we do have referenced projections of greenhouse productivity for tomatoes and lettuce. See "Farm-X schematics" 4_01 & 4_03 for figures.

Vine crop Greenhouse Productivity (e.g. tomatoes):

144 plants/house

30 kg/plant/cycle

3 cycles/year

Total: 12,960 kgs of tomatoes/year/house

Leaf crop Greenhouse Productivity (e.g lettuce):

1600 plants/house

.2 kg/plant/cycle

10 cycles/year

Total: 3200 kg of lettuce/year/house

Total Lettuce & Tomato yield/year/MVK: 42,080 kg



THANK YOU.