

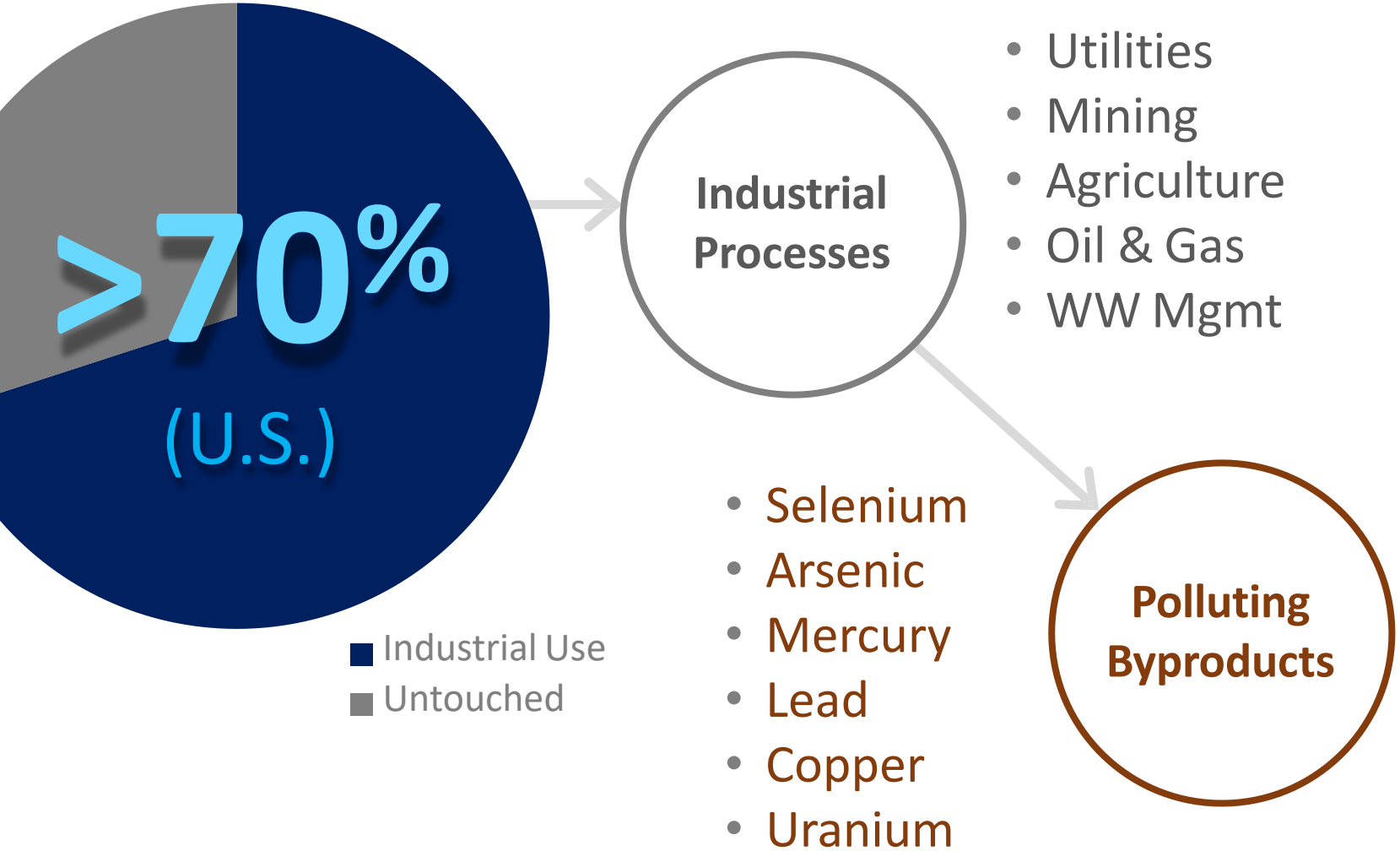
Crystal Clear Technologies

*Novel Technologies for Fast, Effective
Treatment of Wastewater*

Lisa M. Farmen

Founder & CEO

POWER UTILITIES USE 70% OF FRESH WATER



LARGE & GROWING MARKET FOR SOLUTIONS



- DRIVERS
- Expansion
- Finite supply
- Rising population, urbanization
- Environmental

OPPORTUNITY

- Global Com
- Provide efficient and effective solution at lower cost
- Deploy a truly sustainable solution
- Convert a waste to a resource



WATER IS USED TO MAKE EVERYTHING



**9 bottles
of water**

per bottle



**1.5B
gallons**

per processing
plant (annually)



**1.3M
gallons**

per processing
plant (annually)



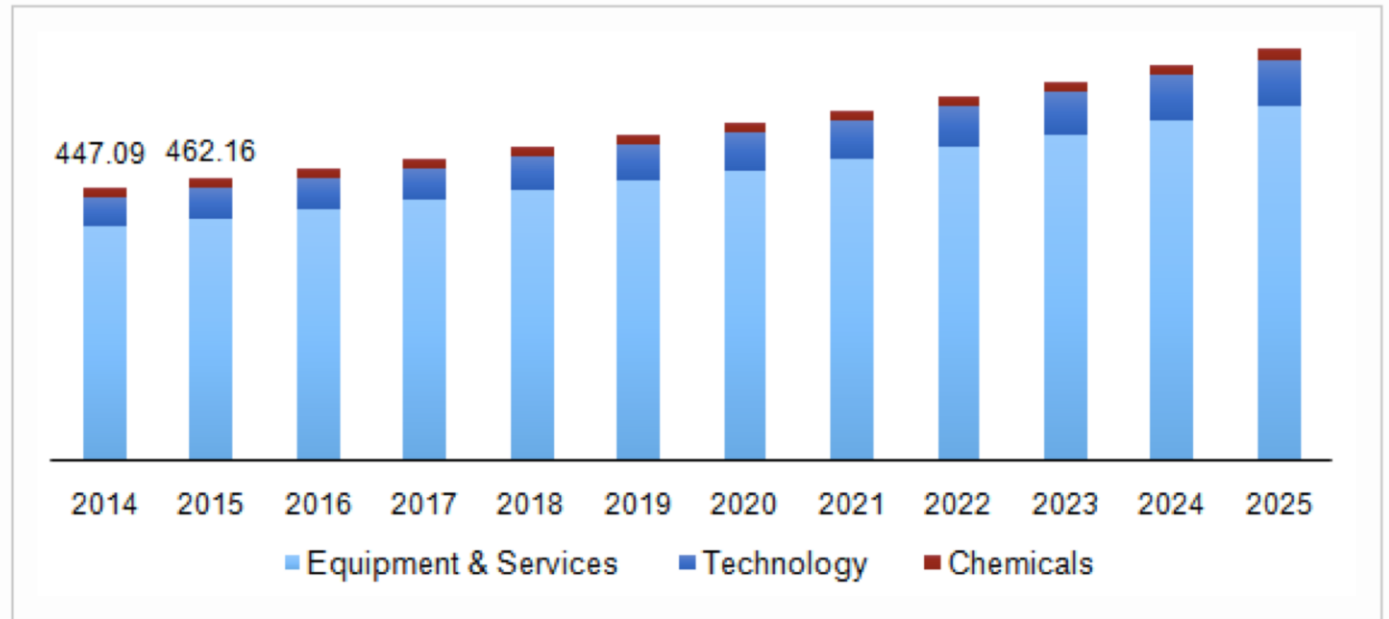
**1.1B
gallons**

per processing
plant (annually)

WASTEWATER DISPOSAL IS EXPENSIVE



Global water treatment market revenue, by type, 2014 - 2025 (USD Billion)



→ Pollutants
= EXPENSE

CCT REMOVES and HARVESTS CONTAMINANTS



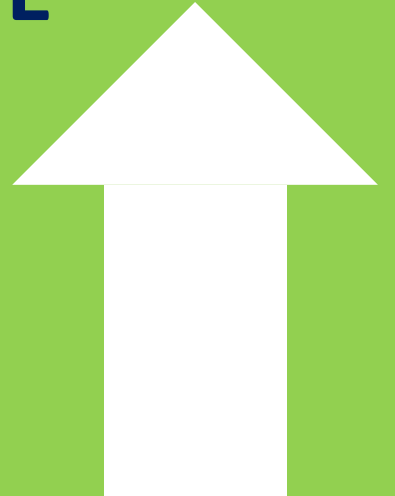
+ Valuable Byproducts
= **REVENUE**



6–16% Metal
(by weight)



Protein Drink



Pollutants
= **EXPENSE**

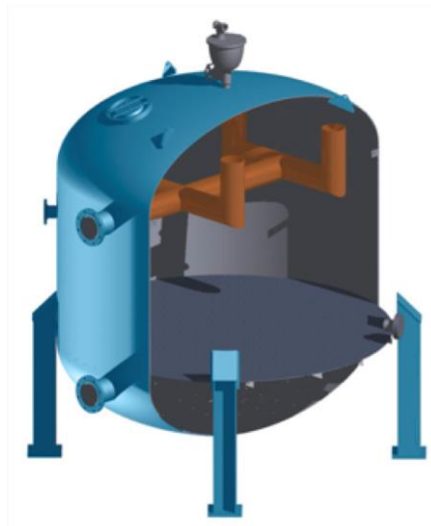
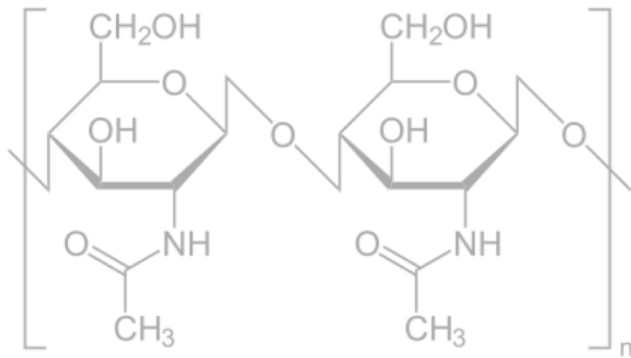


THE TECHNOLOGY



Chitin

(waste material)



WHY CRYSTAL CLEAR TECHNOLOGIES?

ü

Cheaper

CapEx ▼ 70%,
OpEx ▼ 20%

ü

Faster

3-5 minute
contact time,
vs. 2+ hours
(biological systems)

ü

Sustainable

Reclaim solids,
Recycle water

Most
Effective

*<2 ppb selenium exceeds
drinking water standards*

Scalable to 9,000+ gpm

(vs. competition max 500 gpm)

Removes
contaminants to
< 2 ppb
(competition =
10+ ppb)





EXAMPLES – AGRICULTURE



Wastewater Volume* (gals/year)	18,000,000
Annual Cost to Sewer	\$447,696
OPEX Cost with CCT	\$234,000 (est. reduced annual sewer fee) \$7,740 (OPEX NMX™)
Annual Savings*	\$205,996


*Per plant. DII has more than 200 processing plants.

EXAMPLES – AGRICULTURE

		
Wastewater Volume* (gals/year)	18,000,000	77,000,000
Annual Cost to Sewer	\$447,696	\$1,400,000
OPEX Cost with CCT	\$234,000 (est. reduced annual sewer fee) \$7,740 (OPEX NMX™)	\$27,500 (est. reduced annual sewer fee) \$33,110 (OPEX NMX™)
Annual Savings*	\$205,996	\$1,372,500

*Per plant. DII has more than 200 processing plants.

EXAMPLES – AGRICULTURE

			
Wastewater Volume* (gals/year)	18,000,000	77,000,000	750,000,000
Annual Cost to Sewer	\$447,696	\$1,400,000	\$30,000,000 (2,000 acres = lost revenue)
OPEX Cost with CCT	\$234,000 (est. reduced annual sewer fee)	\$27,500 (est. reduced annual sewer fee)	\$470,850 (NMX™ OPEX)
	\$7,740 (OPEX NMX™)	\$33,110 (OPEX NMX™)	
Annual Savings*	\$205,996	\$1,372,500	\$29,069,925

*Per plant. DII has more than 200 processing plants.

WHAT'S NEEDED TO SCALE

MILESTONES ACHIEVED

- ✓ Intellectual property – **6 patents issued**, with right to practice
- ✓ **\$2.25M funding to date**, including >\$1M in SBIR grants (NSF)
- ✓ **External validation** – Cleantech Open, Stanford, Bureau of Reclamation, ADM, Montana Bureau of Mining & Technology, ASU/Salt River Project, State of CA
- ✓ Global supply chain – **manufacturing partners** (equipment, nanomaterials)

NEXT STEPS

- First big customers – e.g., **10-year contract with State of CA** (Imperial Irrigation District/Salton Sea, Kesterson Reservoir)
- Investment capital – seeking **\$1M over 18 months** for raw materials; Sales & Marketing; staffing (Engineering, CFO, CTO); office/lab space



BUSINESS MODEL & GO-TO-MARKET PLAN

BUSINESS MODEL

- Full-scale engineered systems
- Annuity / service business
- Attractive margins
NMX™: 25%+
Equipment: 40%–50%
- Outsourced manufacturing (NMX™ and equipment)

SALES CHANNELS (Evaluating)

- B2B – direct to customer
- Licensing
- Direct to distributor
- Strategic partnerships

TARGET MARKETS

- **Selenium**
 - State of California/BOR Salton Sea
- **Municipalities, Ag Runoff** (numerous)
- **Agricultural Food Processing**
 - Wineries in California
 - Fruit and Vegetable Processing
 - Rendering/Meat Processing
- **Mining Runoff**
 - Berkeley Pit (26 *billion* gallons)
- **Stormwater**

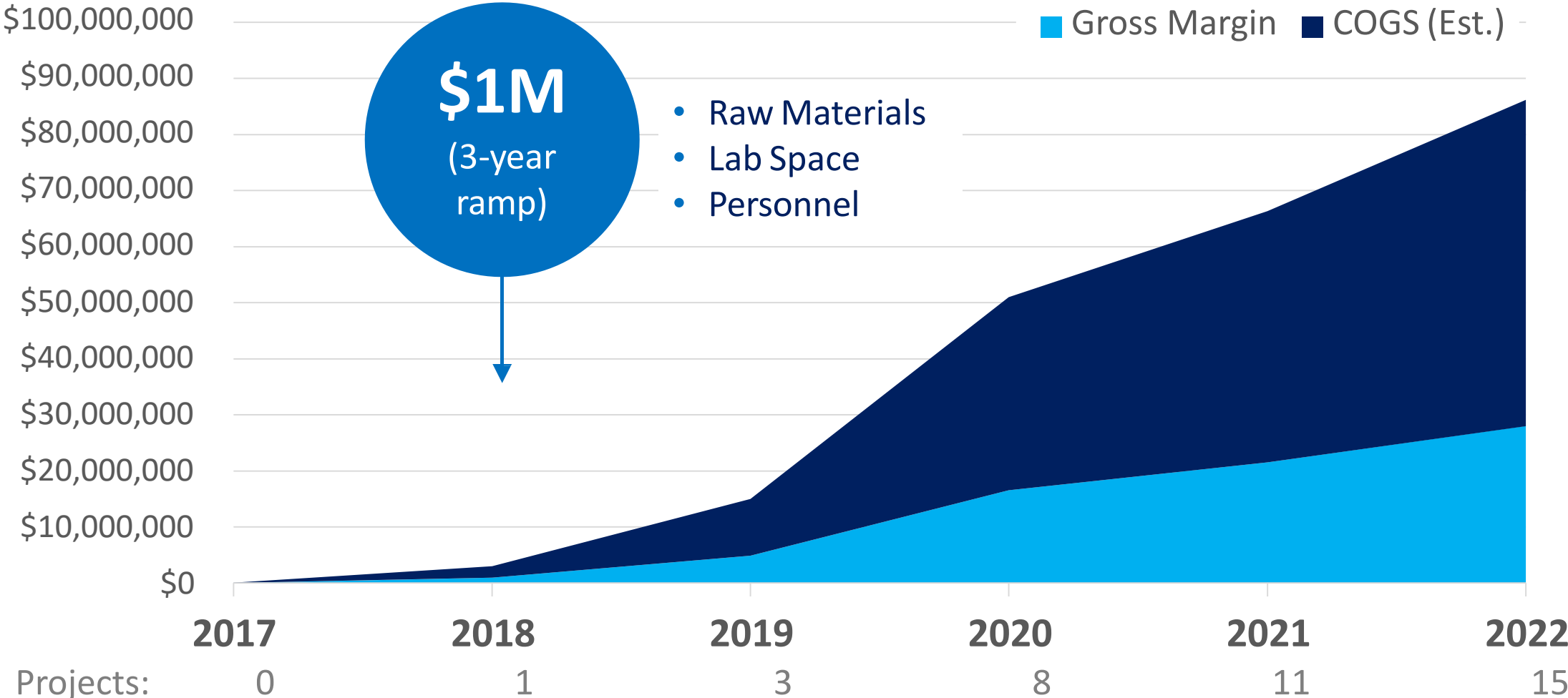


39 STATES

have stormwater utilities, and 7 states have

100+ of them

FINANCIAL PLAN & FUNDING REQUIRED



THE TEAM



Lisa Farmen, MBA CEO 30+ engineering experience (Texas Instruments, Numonyx, ChemTrace, Sharp Labs, Sandia National Labs); built and sold OEM company; developed CCT IP; responsible for customer/partner acquisition



Mark Neuhausen, BS/MS/MBA COO 30+ Technologist, Executive and Angel Investor. Successful intrapreneur in large companies.



Joel Shertok, PhD CTO 30+ Director, Advanced Plasma Solutions; SVP, Rochester Midland; international process industries consultant with expertise in formulation and global manufacturing

ADVISORS

Candace Chan, PhD, Materials Science Professor, Arizona State University; postdoctoral fellow in nanomaterials science at UC Berkeley

Sharad Hajela, PhD, former CSO; Sr. Director Materials R&D at Powervision; Cofounder, Clarity Polymers; NIH postdoctoral fellow in chemistry at UC Berkeley



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