

SpaceCrete

Digital Concrete

Your digital model builds your concrete.

Vertical concrete is extremely inefficient and expensive.

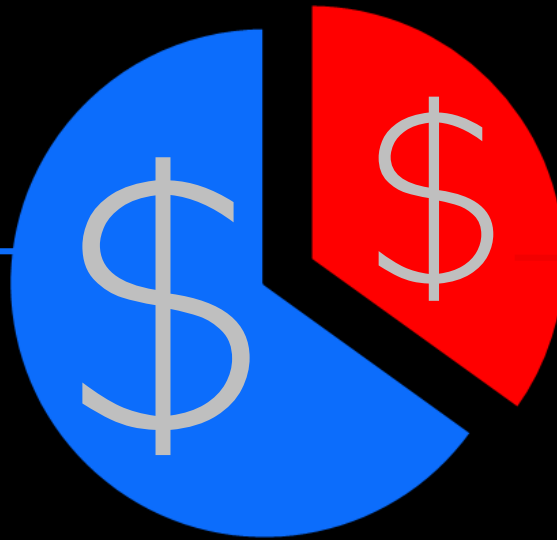
## Forming

most of the cost



### Worker Shortage

Already severe and growing  
Deporting the willing minority  
High injury, short career, low retention



## Materials

enormous waste



### CO<sub>2</sub> Overload

Old methods waste concrete  
New methods burn carbon  
Green options are impractical

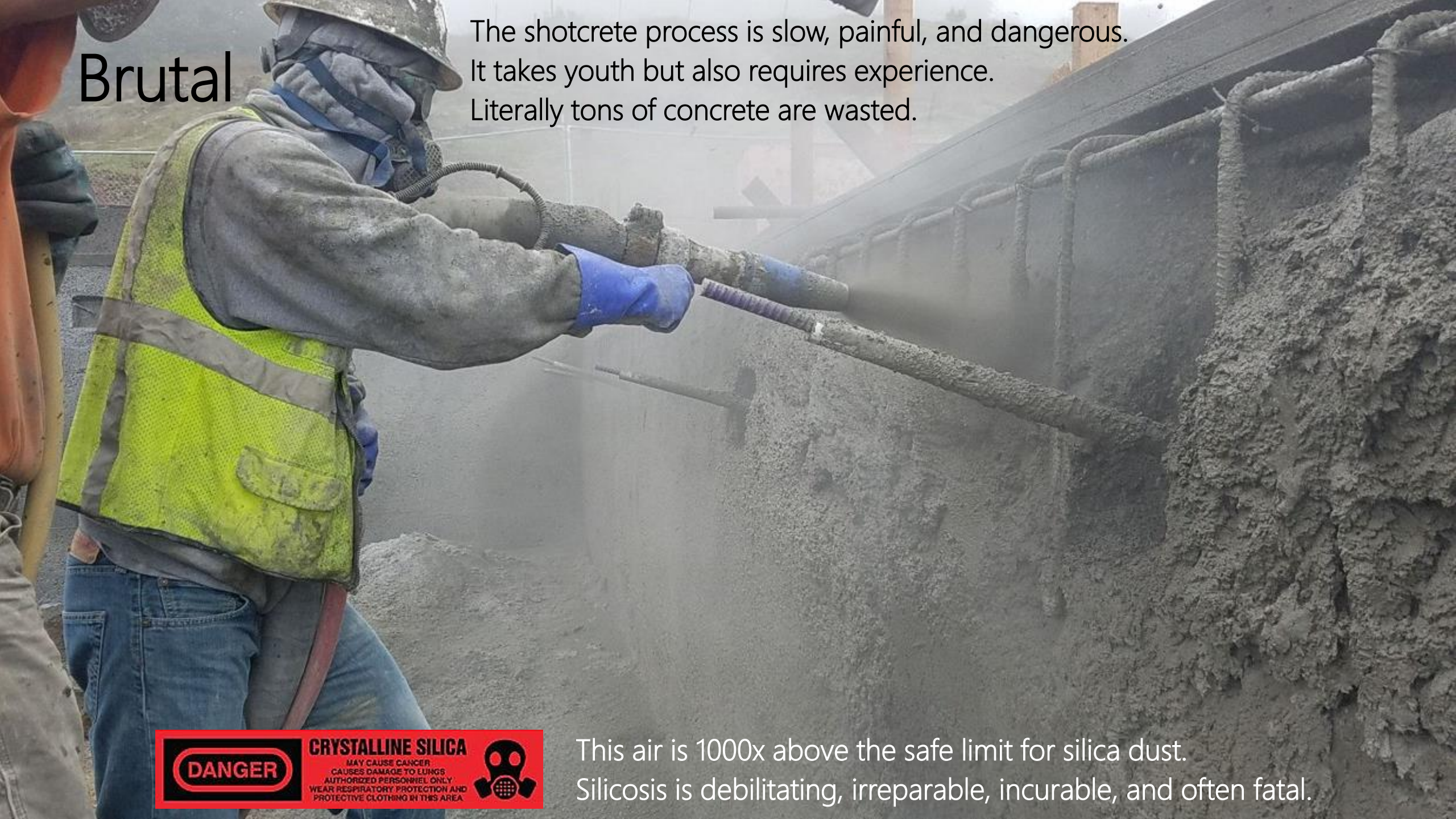


### Hazards Exposure

Huge risks to health  
High disability and deaths

# Brutal

The shotcrete process is slow, painful, and dangerous. It takes youth but also requires experience. Literally tons of concrete are wasted.



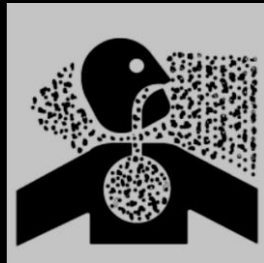
**DANGER**  
**CRYSTALLINE SILICA**  
MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS  
AUTHORIZED PERSONNEL ONLY  
WEAR RESPIRATORY PROTECTION AND  
PROTECTIVE CLOTHING IN THIS AREA



This air is 1000x above the safe limit for silica dust. Silicosis is debilitating, irreparable, incurable, and often fatal.

Since 1907. And still doing it?

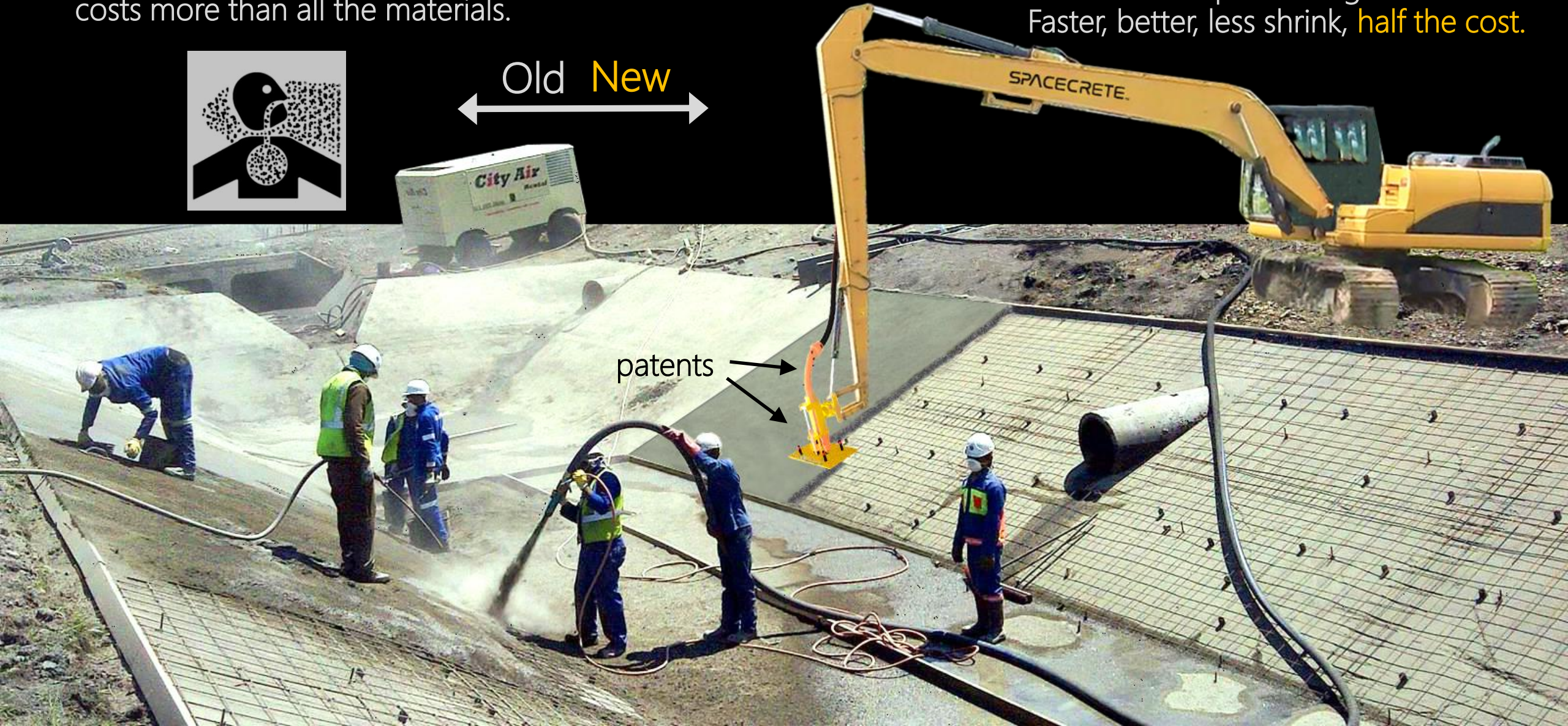
Spraying and carving shotcrete costs more than all the materials.



Old ← New →

Now we have a choice:

The GPS-guided excavator is onsite anyway. It can also place the concrete with vibration per the digital model. Faster, better, less shrink, **half the cost.**



patents →

Sprayed in layers, hoping most of it sticks.  
Tediously carved flat. Generates tons of  
carbon-intensive waste that must be disposed.



Automated to consolidate concrete  
full-thickness, vertically at a foot/min  
without exposing workers to hazards.





# Unbeatable Cost Advantage

A single vent shaft can cost \$40m.

The most expensive part of vertical concrete is typically the forming cost.

\$40k of our new 3D-Admix® avoids **most** of the forming cost.

Because now you can use light-automated slip forms.

Digitization is inevitable, as were digital cameras.

We are far ahead of groups spending millions in R+D.

And we have the **patents**.

A batch of 3D-Admix® made in my garage was voted **Most Innovative Product** at the World of Concrete, when competing against construction material giants.



This is new technology that avoids the issues with existing concrete accelerators.

# We Know Construction

Michael Butler  
Civil Engineer  
Contractor  
44 Years Construction  
History of Innovation



## Advisors:

Michael Oliphant  
Mendocino County  
Chief Building Official  
(retired)

John Thomas  
Concrete Quality Control  
Professional Assurances  
Humboldt County

Mark Flamer  
Structural Engineering  
Consultant  
Modeling Expert



Test projects meeting all building codes



**CONCRETE  
CONTRACTOR**

2023 Top Product



# Any Concrete

## Unlimited Vertical Markets

3D print with native materials  
(at a fraction of the cost and avoiding shipping)



Conventional  
Delivered

3D-Admix® transforms these processes so that virtual models define real concrete, also integrating low-carbon materials into **faster vertical production** methods, now making green-tech cost effective.



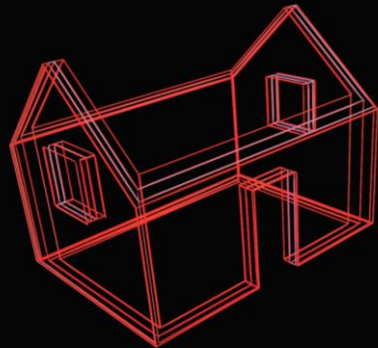
Roman and  
Self-Healing



We will market the enabling materials, hardware, equipment, and robotics.  
**The job cost benefit allows big markup.**



Carbon Neutral  
Cement Free



disaster  
resistant  
housing

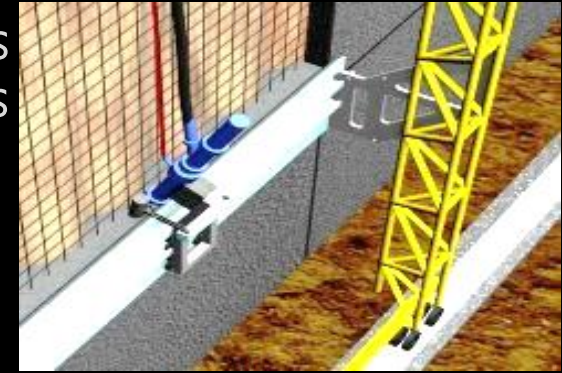
infrastructure  
underground



chimneys  
towers  
silos



basements  
retaining walls

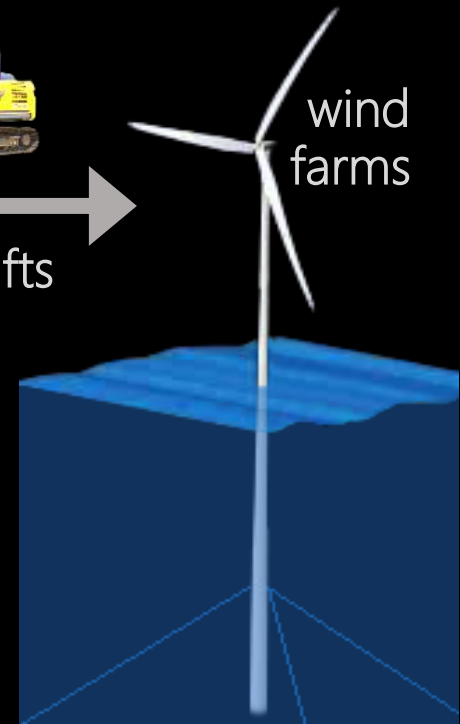


public  
works



elevator shafts

wind  
farms

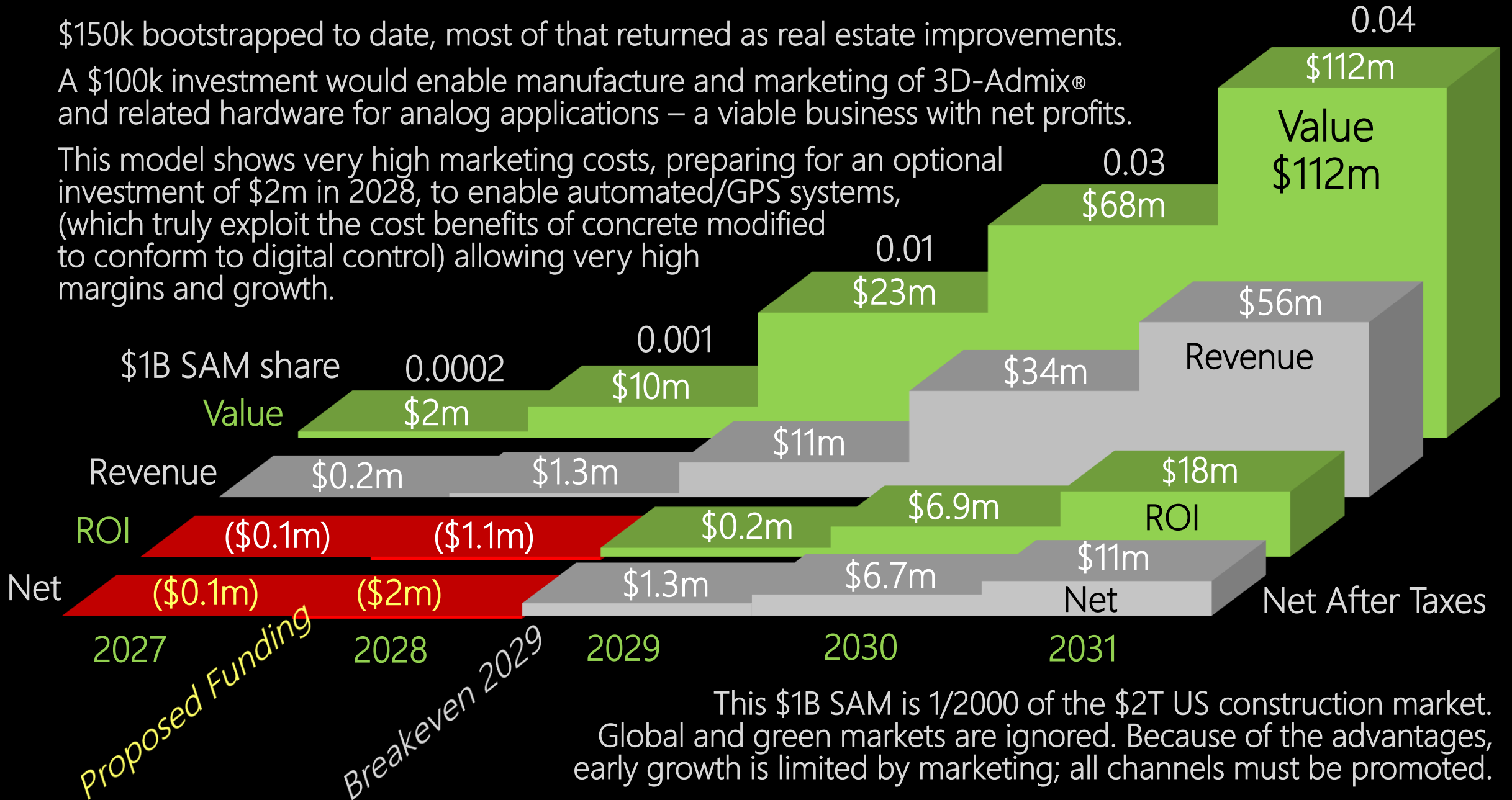


# Patents Protect Profits

\$150k bootstrapped to date, most of that returned as real estate improvements.

A \$100k investment would enable manufacture and marketing of 3D-Admix® and related hardware for analog applications – a viable business with net profits.

This model shows very high marketing costs, preparing for an optional investment of \$2m in 2028, to enable automated/GPS systems, (which truly exploit the cost benefits of concrete modified to conform to digital control) allowing very high margins and growth.



One of six pilot projects.  
R+D is returned as real improvements.

SpaceCrete™

