Challenge of Commercialization

Presentation to

Boston Entrepreneurs Network Meeting

January 8, 2007

Jeff Bentley, CEO
jbentley@celltechpower.com
508 898-2223

Four Fuel Cell Start-ups

1997 — First gasoline fuel processor financed by a major DOE contract

2000 — First gasoline fuel processor financed by a major DOE contract

2003 — Fuel Cell test equipment
Venture financed

2006 — Direct Carbon Fuel Cell
Angel/Gov't financed

All companies are still active or merged

A Technology “Breakthrough”

October 1997 Announcement is Reported Around the Globe

1997:

Electric car refueling innovation reported

Method uses regular gasoline

Global warming: the road ahead

Around the corner: the 80mpg clean car

U.S. firm claims ‘breakthrough’ for electric car

Designed to lower emissions

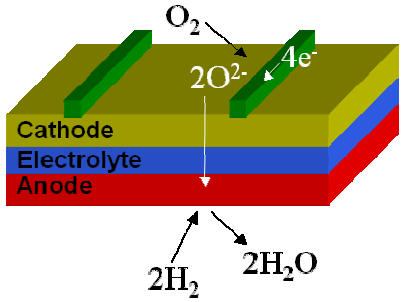
Fuel-cell ‘breakthrough’ for cars, and it’s a real gas

Tech breakthrough offers electric car that uses gas

2007: **Honda to mass produce fuel cell vehicles 'within next 10 years'**

Fuel Cell: An electrochemical generator

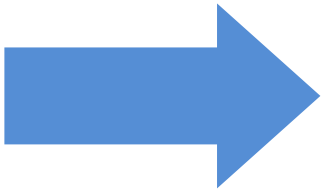
+ Power from fuel + air
+ More efficient than an engine
+ Extremely low emissions
+ Solid state



- Requires hydrogen or methane as fuel
- Expensive (in space since Apollo)
- Unproven durability
- Complex

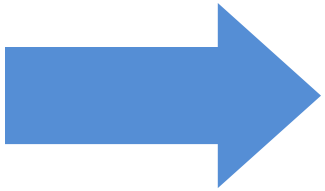
Fuel Cells Haven't Delivered Yet

- Critical Factors Slowing Adoption
  - Efficiency
  - Lifetime
  - Cost



Impacted by
Fuel Issues

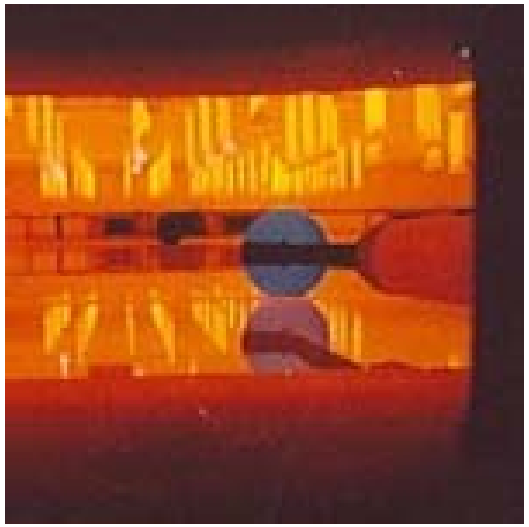
- Existing Fuels are Problematic
  - Gaseous fuels hard to transport
  - Lower cost fuels contaminate fuel cells
  - Pure fuels are expensive
  - Economics driving use of fossil fuel precursors



Fuel-Agnostic
Technology Needed

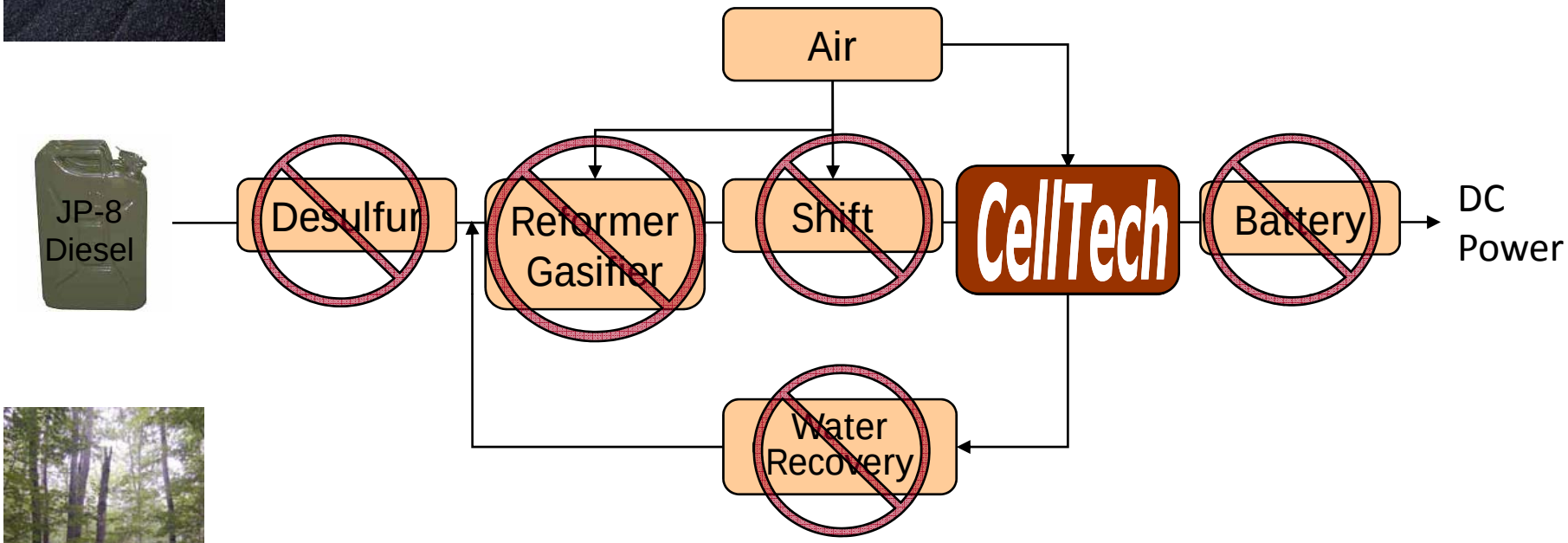
CellTech Power's Solution

- Tin Anode for Solid Oxide Fuel Cell
  - Any hydrocarbon fuel
  - Resists key contaminants
  - Simpler design
  - Low Cost



- Proven and Economical
  - 6,000 cells built and tested
  - 1 kW system tested
  - Liquid Tin used for 34 Million tons/year float glass
- Intellectual Property
  - 2 Patents 8 Applications

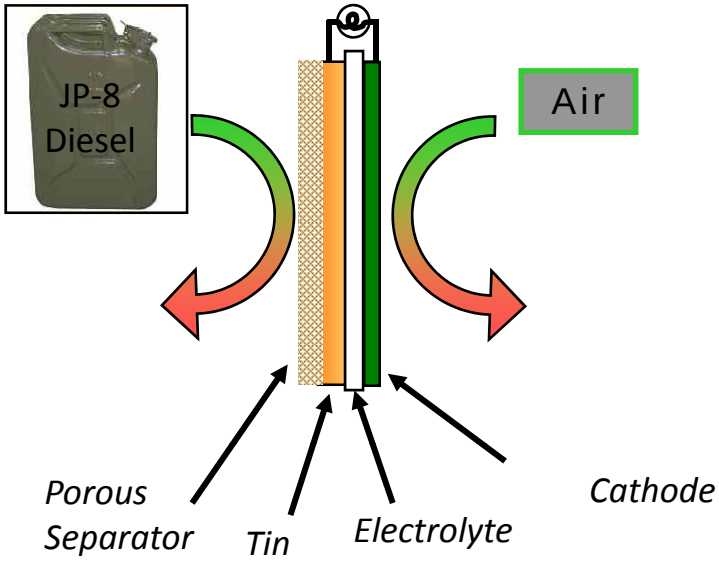
CellTech: Simple & Efficient



Simpler system

- ✓ 20-30% more efficient
- ✓ 30% lower capital cost

Scalable Architecture



30 W – 30 kW "In-Situ Gasifier"

Tubular

Thin static tin layer

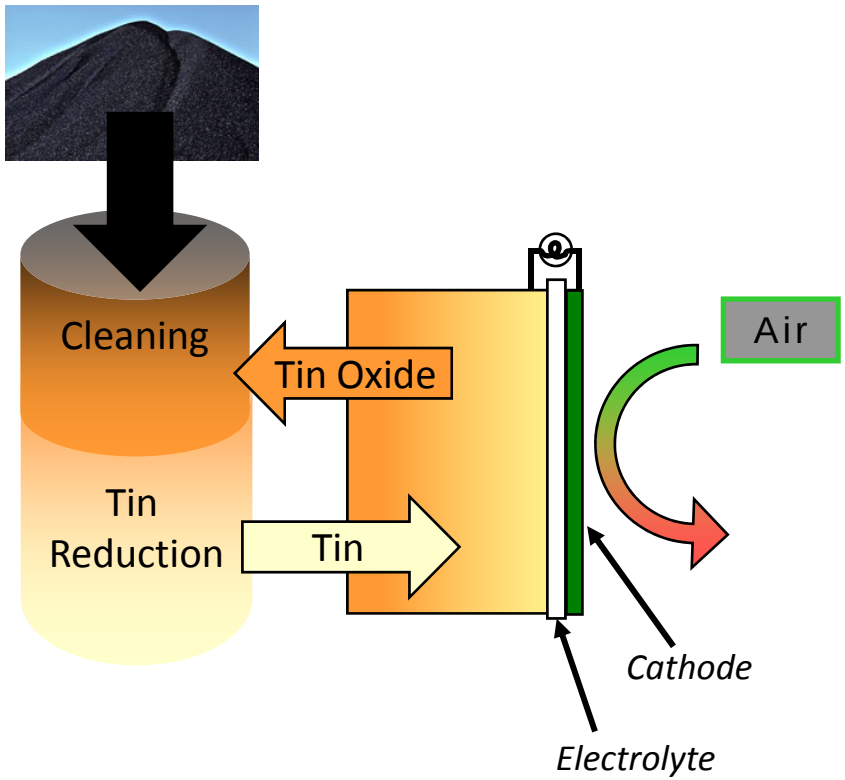
Contained by separator

100 kW – 300 MW "Direct Fuel"

Tubular cathode/electrolyte

Separate tin bath

No gasifier or O_2 plant



The Ideal Power Generation Technology…

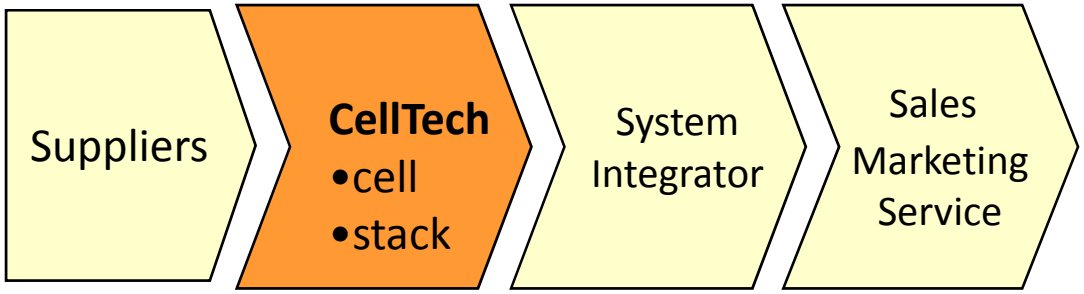
- ✓ Uses Existing Fuels More Efficiently
- ✓ Uses Environmentally Responsible Fuels
- ✓ Scalable
- ✓ Modular
- ✓ Low Cost

CellTech's Value Proposition: Simple, Efficient Power from Real Fuels

- Crawl, Walk, Run market strategy -- not a "moon shot"
- Unique Chemistry- efficient and simple
- Military markets are early, disciplined, hungry, funded
- Utility opportunities enhanced by carbon pressures
- Strong IP position
- Development assets in place (staff, facility, contracts…)

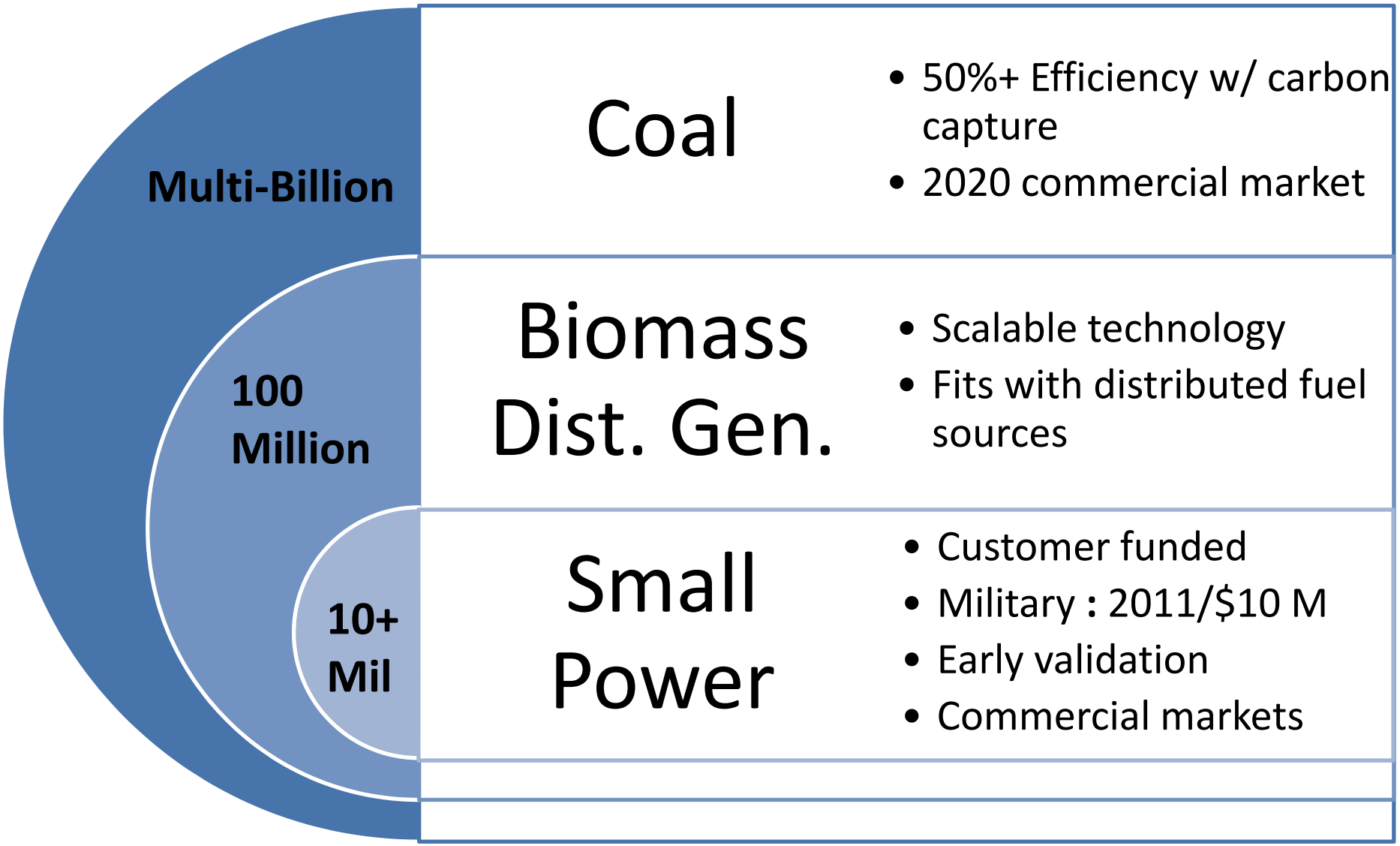
Business Model

- Development Strategy:
  - Use funded R&D to demonstrate cell technology
    - Increase valuation, develop value chain
  - Focus on core tech: Cell & Stack
  - Partner for Markets

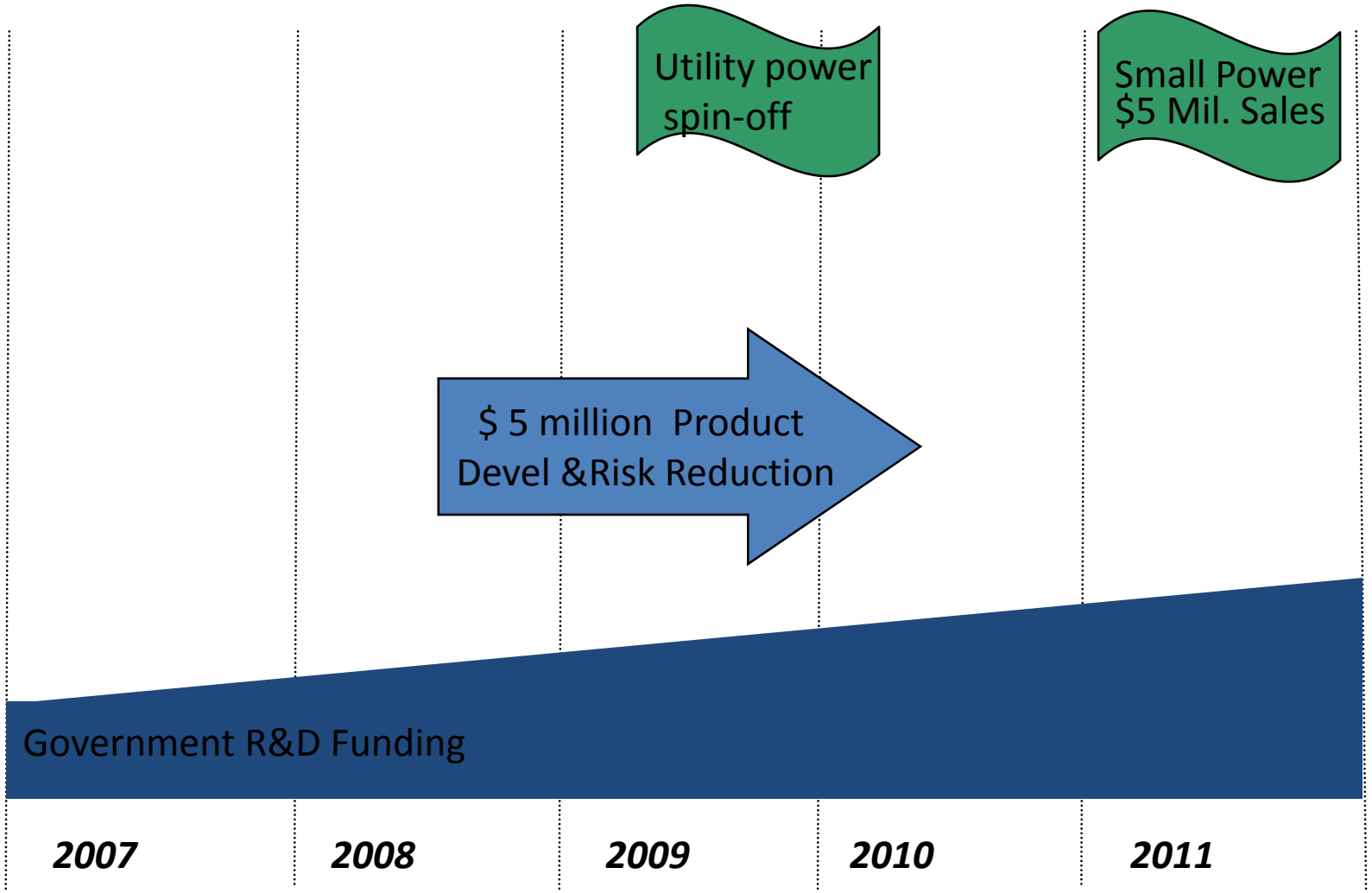


- First Niche: Military ~1 kW: NO JP-8 SOLUTION EXISTS

CellTech Market Development Strategy



Funding Milestones



Partnerships

+ Integrators and Marketers in the Commercial Sector

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