



Enabling the  
**Cell-Free  
Biomanufacturing  
Revolution**

Invizyne combines the best of biology and chemistry to produce new, essential, and valuable chemicals



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## FORWARD-LOOKING STATEMENTS



This presentation contains “forward-looking” information. The information indicates expected future business and financial performance and financial condition. Forward-looking statements address matters that are uncertain. Forward-looking statements are not guarantees of future performance or financial condition, and are only based on management’s current expectations, assumptions, estimates and projections about the Company and the industry segments in which the Company operate. The statements that are forward looking are subject to the risks and uncertainties that the Company will face, many of which are discussed in the Registration Statement on Form S-1 filed with the Securities and Exchange Commission, for the offering. You are urged to consider these risk factors in evaluating your investment in the Company.

The information contained in this presentation has been prepared to assist interested parties in making their own evaluation of the investment opportunity related to the Company and does not purport to be all-inclusive or to contain all of the information that a prospective investor may desire. In all cases, interested parties should conduct their own investigation and analysis of the data set forth in this presentation and the registration statement for the offering. The Company has not assumed any responsibility for independent verification of any of the forward-looking information contained in this presentation or the related registration statement, including projections and future events and assumptions on which the projections and future events are based. None of the Company or their respective affiliates and representatives makes any representation or warranty (expressed or implied) as to the accuracy or completeness of the forward-looking information contained in this presentation and the related registration statement. Those parties or entities expressly disclaim any and all liability based on or relating to any representations or warranties (expressed or implied) contained in, or errors or omission from, this presentation and the related registration statement or based on or relating to the recipient’s use or the use by any of its affiliates or representatives of this presentation or the related the registration statement or any other written or oral communications transmitted to the recipient or any of its affiliates or representatives in the course of its investment evaluation related to this investment opportunity.

The offering will be made only by means of a prospectus forming a part of the registration statement on Form S-1 relating to these securities that has been filed by the Company with the U.S. Securities and Exchange Commission. The securities offered by the Company are highly speculative. Investing in the shares of common stock of the Company involves significant risks. The investment is suitable only for persons who can afford to lose their entire investment. Furthermore, investors must understand that an investment in the Company common stock could be illiquid for an indefinite period of time.

Prior to this offering, there has been no public market for the shares of common stock of the Company. The Company has applied to list its shares of common stock on the Nasdaq Capital Market, sometimes referred to as “Nasdaq.” The listing will not be approved until the time of the offering. No assurance can be given that the application will be approved or that an active trading market for the shares of common stock will develop. The Company will not consummate and close this offering without a listing approval letter from Nasdaq. If the Company does not receive a Nasdaq listing approval, they will terminate the offering.

Listing securities entails significant ongoing corporate obligations including but not limited to disclosure, filing and notification requirements, as well compliance with applicable continued quantitative and qualitative listing standards. If the Company is unable to satisfy these obligations, of which there can be no assurance, the common stock may be delisted. For additional information on Invizyne Technologies, Inc. and the offering, please review the current registration statement on Form S-1 (# 333-276987) that can be found at the following location EDGAR Entity Landing Page ([sec.gov](https://www.sec.gov)).

## AN EXISTENTIAL AND CURRENT GLOBAL PROBLEM

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The world is using **unsustainable and inefficient** manufacturing processes to make fuels, foods, medicines, and other products

*Examples of the fundamental manufacturing problems:*

### Petroleum-Based Manufacturing



- Polluting and non-renewable
- Requires massive capex & manufacturing footprint
- Waste product toxicity and environmental degradation
- Does not provide competitive advantages and leads to a race to the bottom markets

### Plant-Derived Products



- Extensive land use for small amounts of plant-derived chemicals
- Large water consumption strains local supplies
- Pesticide and fertilizer cost and environmental degradation
- Seasonal variability
- Competes with food production

### 1<sup>st</sup> Generation Synthetic Biology



- Not economical to manufacture
- Long development cycles
- Low yields are common
- Systems often do not scale efficiently and/or affordably
- Toxicity of products can kill cells, which is the manufacturing platform

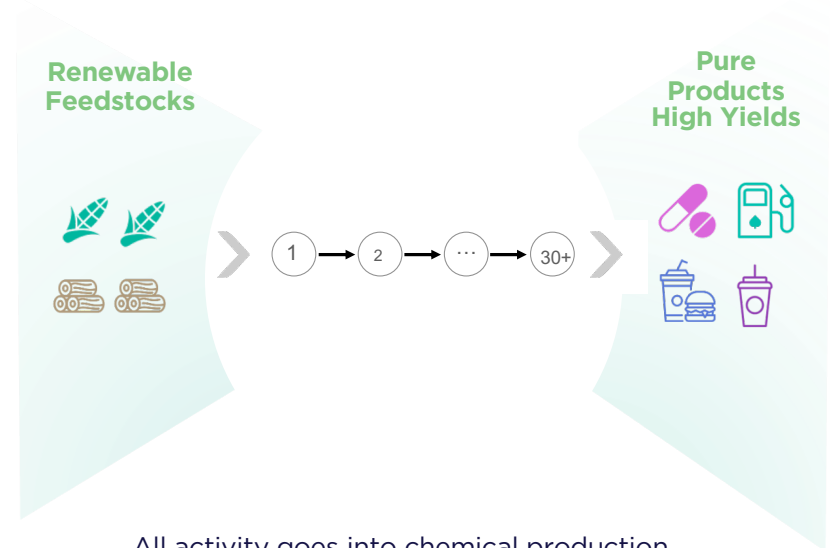
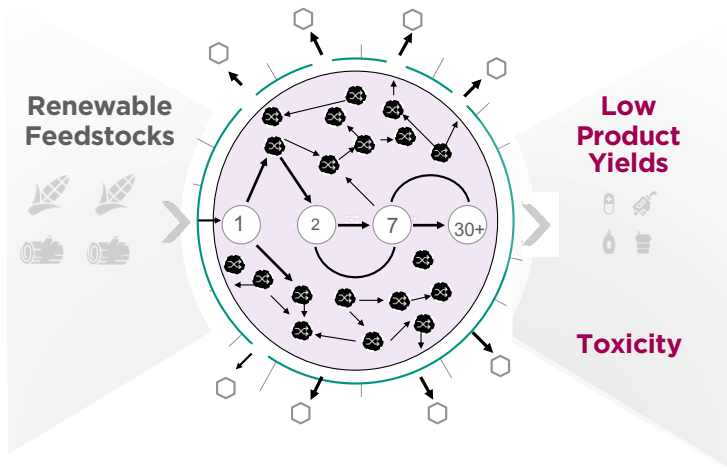
INVIZYNE'S DISRUPTIVE SOLUTION: CELL-FREE BIOMANUFACTURING

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Changes the paradigm by taking the enzyme pathway out of the cell

CELLS ARE COMPLICATED

CELL-FREE ENZYMES SIMPLIFY CONTROL & SCALE



Only 5-10% of activity goes into chemical production

All activity goes into chemical production

## INVIZYNE'S DISRUPTIVE SOLUTION: CELL-FREE BIOMANUFACTURING

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Enables chemical and drug companies to turn natural resources into valuable chemicals **sustainably and affordably**

### Key Advantages

- Enables new products and markets by creating valuable chemicals and compounds that otherwise can not be made
- Enables new and better versions of existing chemicals at better prices

### Environmentally Sustainable

- Significantly lowers carbon emissions and pollution by using cell-free enzymes and plant-based sugars and starches to create valuable chemicals

### Low Production Costs

- Lower CAPEX
- Higher yields
- Less downstream processing
- Fast R&D cycles

### Fast Time-To-Market

- Rapid design, testing and proof of feasibility makes it cost-effective.
- No toxicity concerns because there are no fragile cells to keep alive.

### Demonstrated Approach

- Moving to commercial production scale with more products after demonstrating manufacturing scaling feasibility

INVIZYNE'S DISRUPTIVE SOLUTION: CELL-FREE BIOMANUFACTURING

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**Recognized leader** of Cell-Free Biomanufacturing  
in peer-reviewed scientific journals

3X published in



4X published in

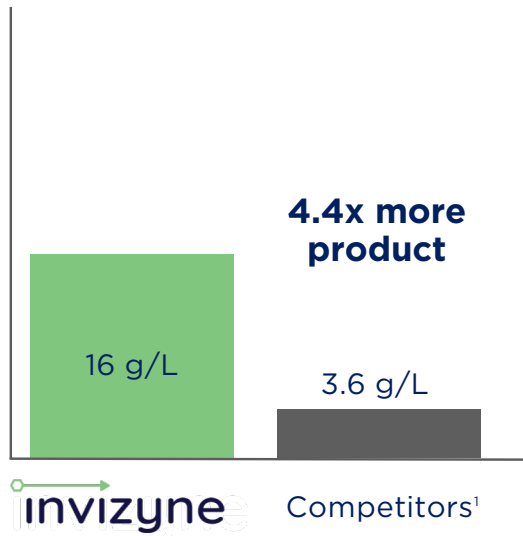


INVIZYNE'S DISRUPTIVE SOLUTION: CELL-FREE BIOMANUFACTURING

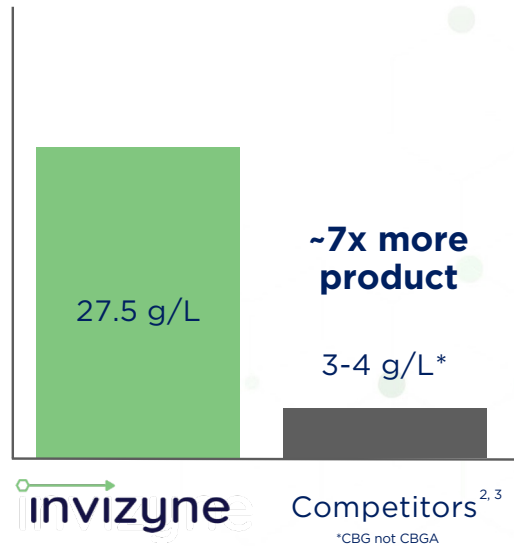
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Demonstrated **game-changing improvements** in manufacturing feasibility versus competitors

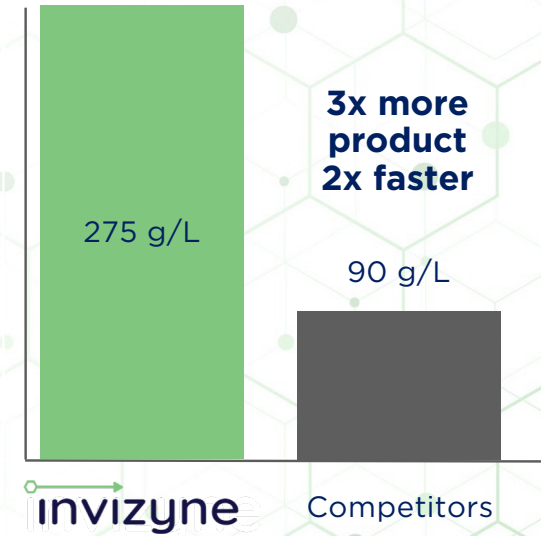
Flavors/Fragrances - Terpenes



Pharmaceuticals - CBGA



Biofuels - Isobutanol



Footnotes

- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7221582/>
- <https://www.proactiveinvestors.com/companies/news/960900/willow-biosciences-ramps-up-production-titer-delivers-corporate-update-960900.html>
- <https://www.ieabioenergy.com/blog/publications/progress-in-the-commercialization-of-biopet-sustainable-aviation-fuels-technologies-potential-and-challenges/>

## CAPITAL EFFICIENT DEVELOPMENT MODEL

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**\$13MM+** in grants enabling and accelerating the development of platform technology



**Cannabinoids**  
Phase I SBIR \$150k

**Cannabinoids**  
Phase II SBIR \$2MM

**Methylation**  
Phase I SBIR \$255k



**Cofactors**  
Phase II SBIR \$2MM

**Isobutanol**  
BETO \$2.1MM + \$3.7MM

**Alcohols**  
ARPAe \$1.6MM

**Proteins**  
ARPAe SBIR \$500k

**Cofactors**  
Phase IIb \$1.2MM



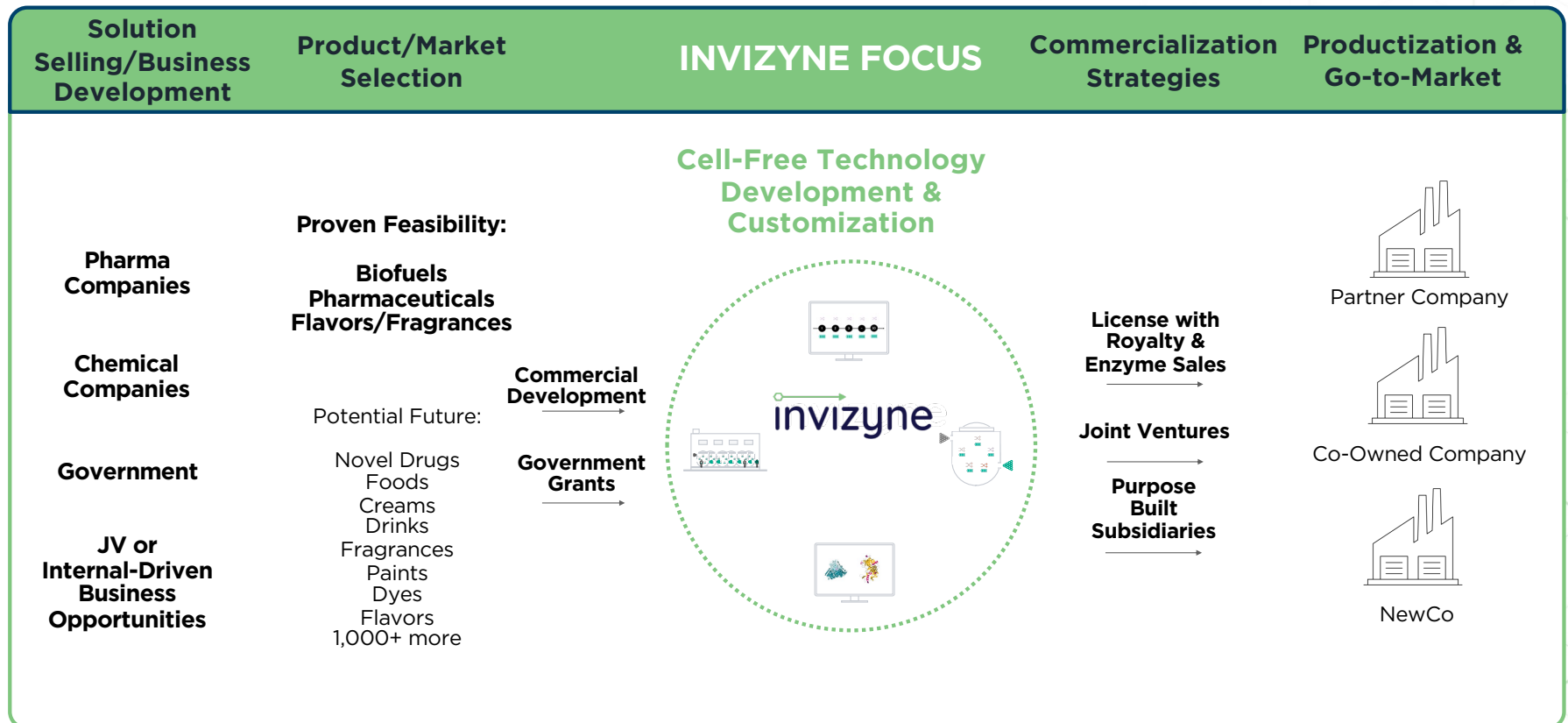
**Proteins**  
TCF \$150k

**Cell-Free**  
Subcontract \$50k



# COMMERCIALIZATION STRATEGY

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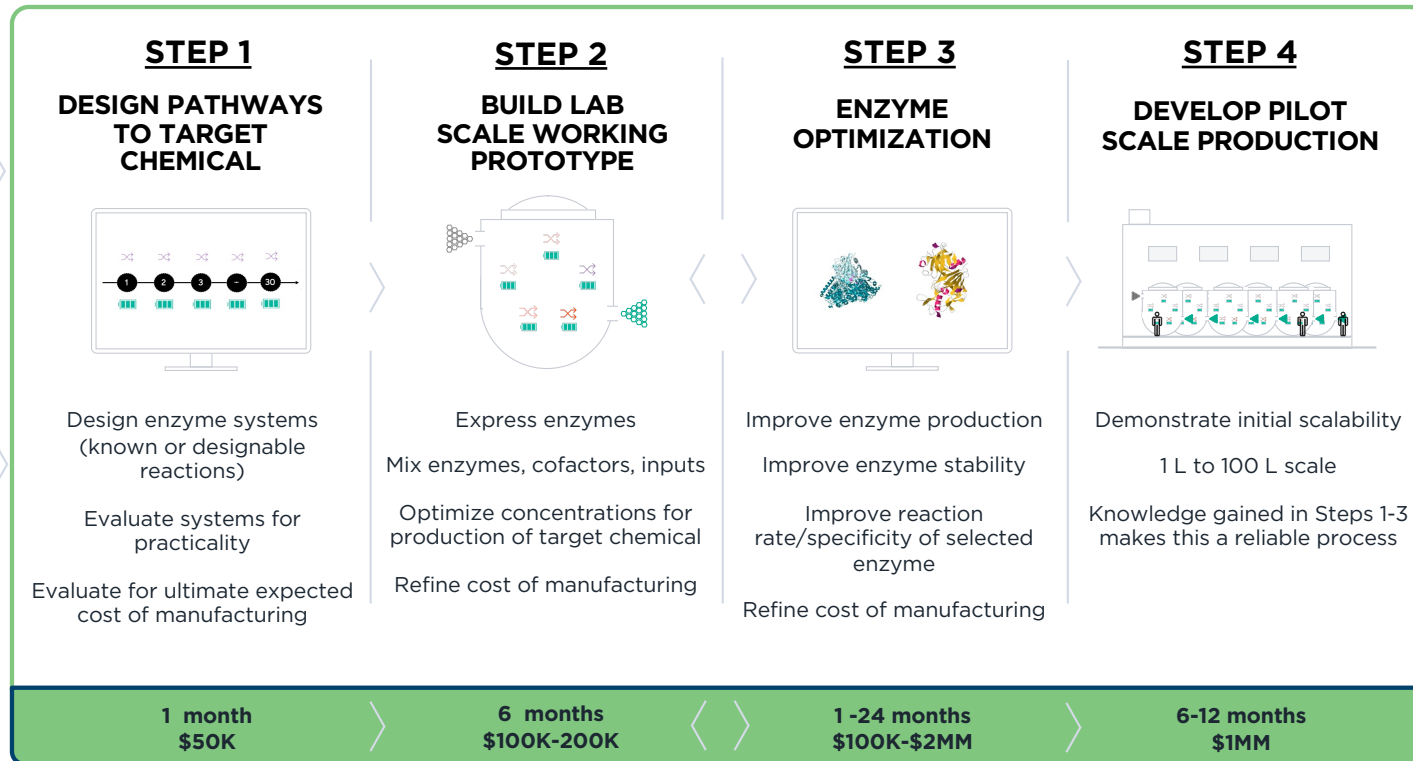
# DE-RISKING PROCESS AT INVIZYNE



## Developing **cell-free biomanufacturing solutions** ready for commercialization

**PRODUCT SELECTION**  
 Biofuels, APIs, industrial chemicals, foods, flavors, fragrances

**FUNDING**  
 \$1-\$2MM in funding by partner, govt grants or JDA



**COMMERCIALIZATION**  
 SimplePath System  
 Ready for manufacturing, license, joint venture, or spin out

## INTELLECTUAL PROPERTY POSITION

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Business model leverages IP for proprietary **processes, R&D platform and key enzymes**

*10+ patents and substantial trade secrets protecting:*

### **Novel Cell-Free Biomanufacturing**

Processes for novel cell-free biomanufacturing and ongoing enzyme-based production

### **Novel Enzymes**

Novel enzyme systems developed to produce select products

### **Novel & Rare Chemicals**

Composition of Matter for New Drugs and Chemical Entities

### **Advanced AI and R&D Platform**

Advanced AI and R&D platform, allowing for fast and cheap enzyme optimization and cell-free biomanufacturing

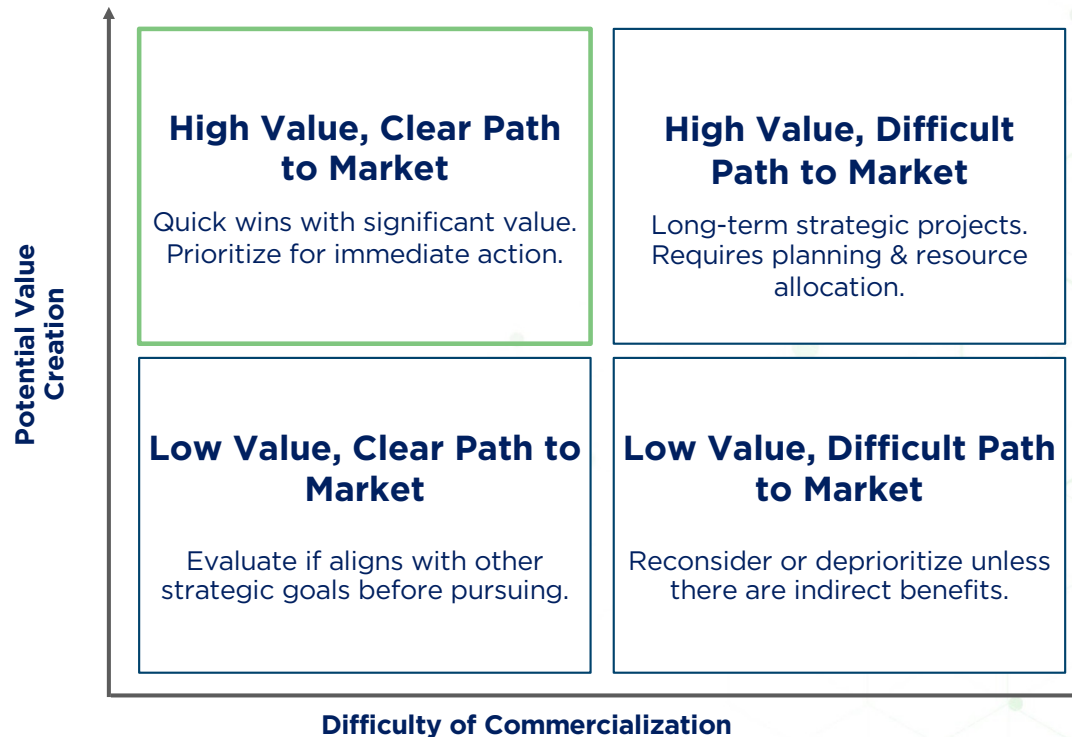
### **Trade Secrets**

Trade secrets for critical R&D processes learned internally that will never be shared or disclosed

## PARTNERSHIP & BUSINESS DEVELOPMENT PRIORITIZATION

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Focus on opportunities and markets that **create value for shareholders**



# POTENTIAL PARTNERS BY MAJOR VERTICAL

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## PHARMA/APIs



## FOOD/FLAVORS/FRAGRANCES



## ENERGY TRANSITION/BIOFUELS



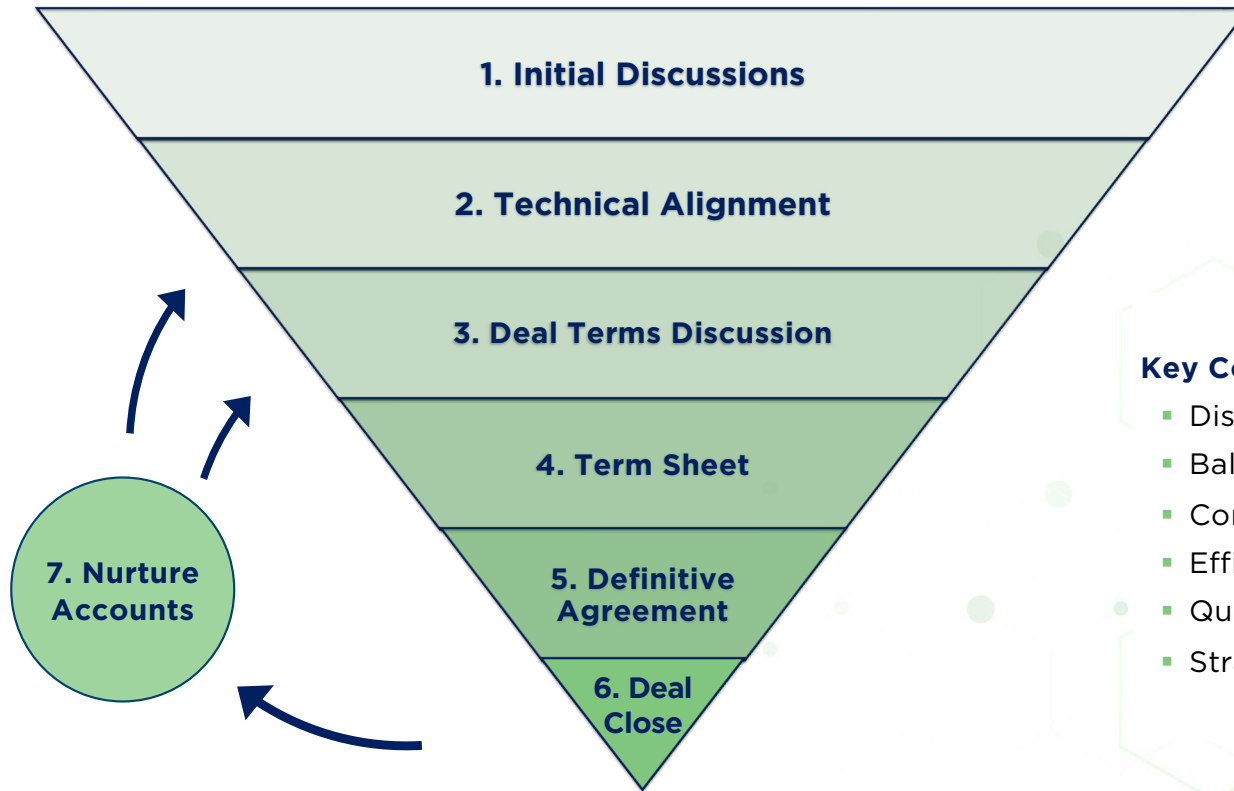
## INDUSTRIAL CHEMICALS



\*Please note: This is not meant to be considered a list of current customers/partners, but rather examples of partnership candidates.

# PARTNERSHIP DEAL FUNNEL OPTIMIZATION

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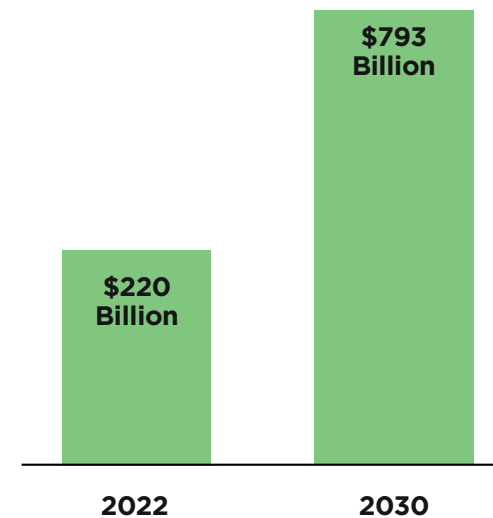
## Key Considerations

- Discernment in deal selection
- Balanced funnel dynamics
- Continuous replenishment
- Efficient transition and progression
- Quality over quantity
- Strategic abandonment

## Isobutanol used as **Sustainable Aviation Fuel (SAF)**

- A liquid fuel already used in commercial aviation, which reduces CO<sub>2</sub> emissions by up to 80%
- Comprises less than 0.1% of aviation fuels, but **all airlines are looking for suppliers**
- Healthy premiums/subsidies paid for SAF over fossil fuels
- A **politically mandated hyper-growth** market in both US and EU
- 70% of jet fuels at EU airports mandated to be SAF by 2050

**Total Addressable Market (U.S.)**



Source: The International Air Transport Association (IATA.org) and Acumen Research and Consulting

## DEMONSTRATED MARKET OPPORTUNITY #2: PHARMA

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# Cell-free, enzyme-based biomanufacturing for **drug discovery and development**

- Enables new and better drugs **otherwise impossible to make**
- Allows for the biochemical engineering and mass production of a new generation of complex drug molecules, **by overcoming the limitations of cellular metabolism** and first-generation synthetic biology
- Allows for chemical engineering level control (biocatalysis) at never seen before levels by using **the best of biology and chemistry simultaneously**





## BUSINESS MODEL WITH ASYMMETRIC UPSIDE POTENTIAL

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By partnering, instead of trying to compete, we have **multiple shots on goal in multiple markets**

### Limited Downside



- Downside protected by foundational patents
- High market impact, but capital light because development costs offset by government grants and partners

### Unlimited Upside



- Wide range of market possibilities
- Multiple potential revenue streams per market:
  - License fees
  - Royalties (1%–8%)
  - Critical enzyme sales that no one else can make

### High Impact on NPV



- Unique ability to disrupt multiple, multi-billion-dollar markets
- Value creation significant without the risk profile and cost of competing directly
- Potential to generate significant investor returns relative to capital requirement

## KEY FOCUS AND USE OF PROCEEDS

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### Five building blocks for the next three years



Scaling  
Enzyme  
Production



R&D Project  
& Facilities  
Expansion



Expanding  
the Team  
of Talents



Growing  
Isobutanol  
Business Unit  
& Partnerships



Growing  
Pharma API  
Business Unit  
& Partnerships

## OUR TEAM

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Experienced commercial leadership team including  
**the world's leading cell-free scientists**



**Michael  
Heltzen**  
CEO



**Tyler  
Korman Ph.D.**  
Co-Founder,  
VP of Research



**Paul  
Opgenorth Ph.D.**  
Co-Founder, VP  
of Development



**Michael  
Burns**  
EVP of Energy  
Transition



**Zachary  
Karl Ph.D.**  
VP of Business  
Development

+ an expert team of  
20+ scientists,  
chemical engineers,  
technicians, and  
business development  
professionals

## INVIZYNE IPO SUMMARY

The Invizyne logo is located in the top right corner of the slide. It consists of the word "invizyne" in a lowercase, sans-serif font. A green arrow points from the end of the "INVIZYNE IPO SUMMARY" header line towards the logo.

- + \$17.2 MM
- + \$4.00 per share
- + 4,300,000 shares
- + Proposed Ticker: IZTC
- + Trading expected on NASDAQ in July
- + Allocation preference given to MDBH shareholders / account holders
- + Management believes IPO qualifies for Section 1202/QSBS exclusion\*

\*You should consult your own tax, legal and accounting advisors before engaging in any transaction.

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Learn more at [invizyne.com](https://invizyne.com)  
or contact:

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