

# BRAIN Biotech AG

Creating a #BiobasedFuture

BRAIN CMD 2024

Adriaan Moelker, CEO

## BRAIN Biotech Group Strategy and Priorities

our unique customer offering and five-year outlook

Zwingenberg, December 12<sup>th</sup>, 2024



**WE SUPPORT**



Since 2021 we have been committed to the UN Global Compact corporate responsibility initiative and its principles in the areas of human rights, labor, the environment and anti-corruption.

# Safe Harbor Statement

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This document may contain forward-looking statements. These forward-looking statements are subject to risks and uncertainties, as they relate to future events and are based on current assumptions of the Company, which may not occur at all in the future or may not occur as assumed. They do not represent a guarantee for future results or performance of the Company, and the development of economic and legal conditions may materially differ from the information expressed or implied in the forward-looking statements.

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# Agenda: Fifth Capital Markets Day BRAIN Biotech AG

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## **BRAIN Biotech Group strategy and priorities. Our unique customer offering and 5-year outlook**

Adriaan Moelker, CEO

## **BRAINBiocatalysts' unique technology and production platforms**

Alexander Pelzer, VP R&D

Andrew Ellis, VP Fermentation & Technology

## **R&D spotlight: Enabling Sustainable food by microbial fermentation**

Esther Gabor, Unit Head Microbial Strain Development

## **BioProducts: Growth initiatives and margin drivers**

Daren Bryce, VP Food & Pharmaceuticals

## **Executing Vision 100**

Michael Schneiders, CFO

# Today's Key Messages

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BRAIN Biotech is well positioned for earnings growth

- Combination of BioProducts and BioScience Zwingenberg to form the growth segment **BRAINBiocatalysts** with **Enzymes** at its core
- **Reduction of Group segments** from three to two: BRAINBiocatalysts and BioIncubator
- Significantly **improved liquidity and earnings position** after completed transactions with Royalty Pharma and Akribion Therapeutics in November
- Successful **commercialization of the BioIncubator** segment's activities is to be systematically continued
- 5-year targets in the BRAINBiocatalysts segment: revenues of **€100 million, 15% adjusted EBITDA margin** and high R&D ratio



# The World Is Facing Great Challenges

Biotechnology can play a key role in many of them

## Energy & Environment



## Livestock farming



## Food security



## Planetary boundaries





# The Use of Enzymes Enables Sustainable Food Production

almost all commercial foods contain at least one ingredient produced with enzymes



## Food waste reduction

increasing the shelf life of food  
fresh & edible for longer



**Scarce resource savings**



## Improved production times and yields

faster ripening & improved flavor  
Reduction in energy and water consumption



**Reduction of CO<sub>2</sub> emissions**



## Digestibility of plant proteins

Whey protein: amino acid profile & digestible  
Plant proteins better bioavailable & digestible



**More efficient resource use**

# Higher Sustainability of Industrial Production

Biotechnology will be a key to success

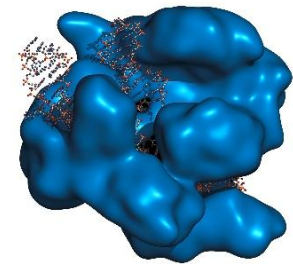
## Materials will be more sustainable:

- Performance & functional proteins
- Natural polymers
- Biological recycling, e.g. **Biogold** and plastics



## Biomolecules will be produced:

- APIs via biocatalysis
- Natural preservatives
- Technical additives



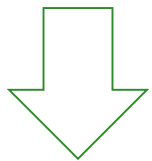
**Substitution of high-energy Chemical reactions with Biological Processes**

# Our Passion Is to Make a Difference: #BRAINImpact

we create solutions that address several UN SDG's in both our products and science businesses



**Food security and improved nutrition**

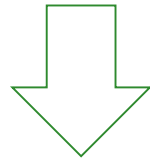


**Food enzymes  
(Beverage, Baking, Dairy)**

- Natural preservatives
- Animal protein replacement
- Plant-based proteins



**Improving health and well-being**

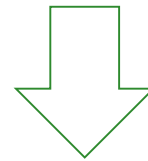


**Life Science solutions**

- Novel sweetener
- Drug API development
- Enzymatic wound care



**Minimizing pollutants in industrial processes**

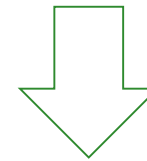


**Starch processing enzymes**

- Urban mining
- Battery recycling
- Utilize food sidestreams



**Promoting sustainable industrialization**

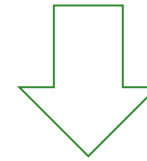


**Dairy replacing proteins**

- CO<sub>2</sub> as feedstock
- Enzymatic syntheses
- Biolubricants



**New techniques for precise gene editing**



**High-yield industrial production microbes**

- Enabling technology
- Fast & precise
- Novel mode of action



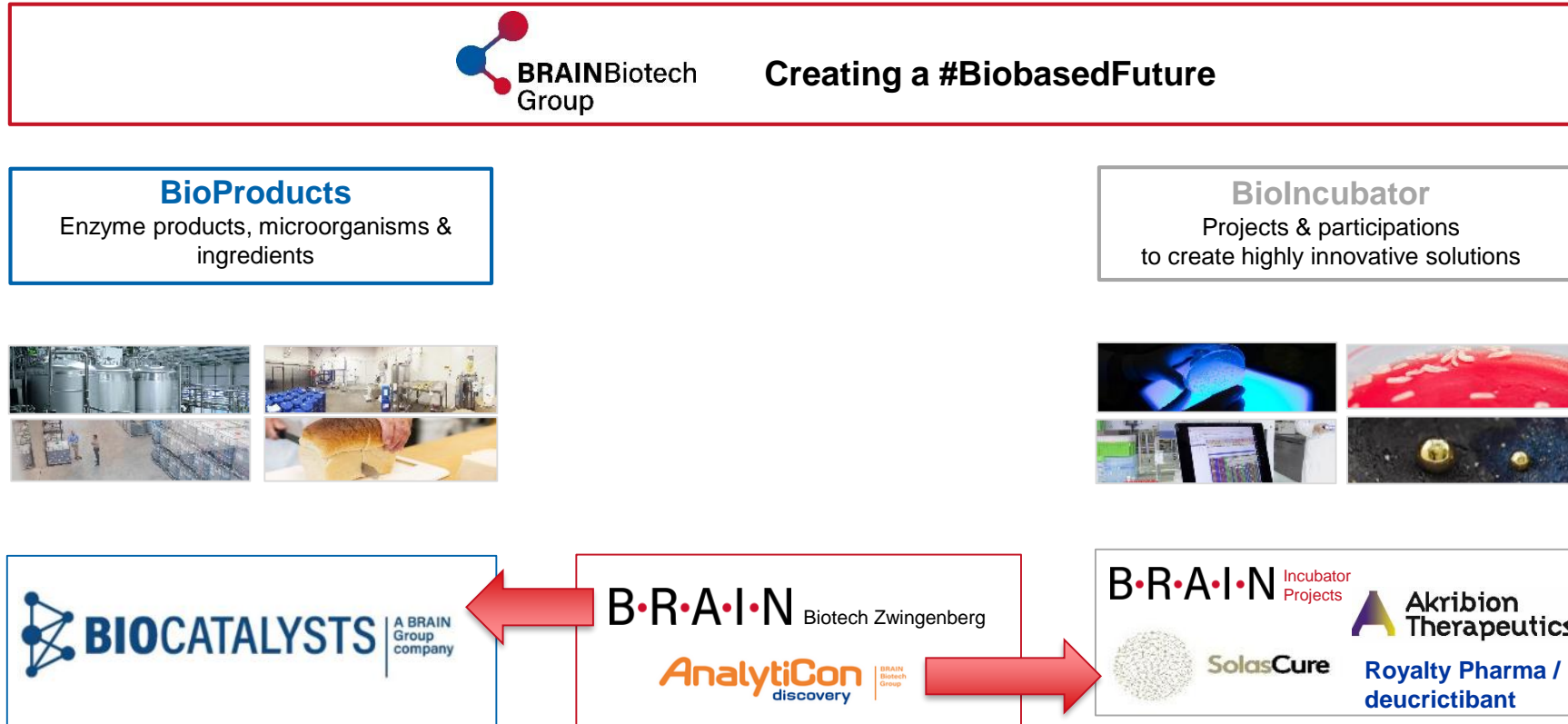
# Introducing a New Combined Division

covering products, research and contract manufacturing



# Simplification & Focus: The New Organization

creating focus on the enzymes business and integrating our science



# Focussed Business Organization With High Transparency

two pillar operational structure plus active holding



Creating a #BiobasedFuture



BRAINBioIncubator

Projects & participations with highly innovative solutions



BRAINBioIncubator  
Pipeline Projects

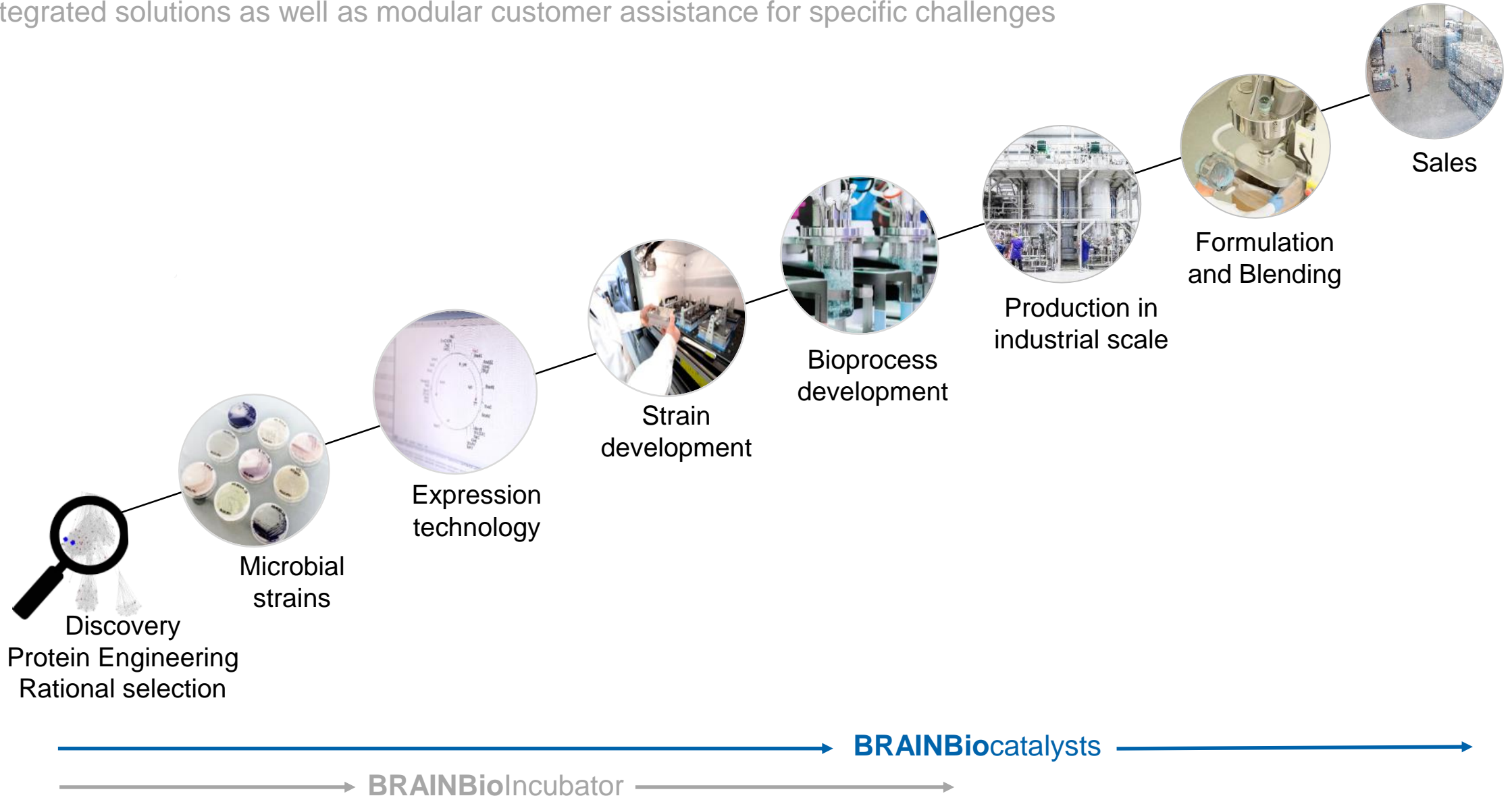


Royalty Pharma /  
deucricitabant



# BRAIN Biotech Is a Solutions Provider Across the Enzyme Value Chain

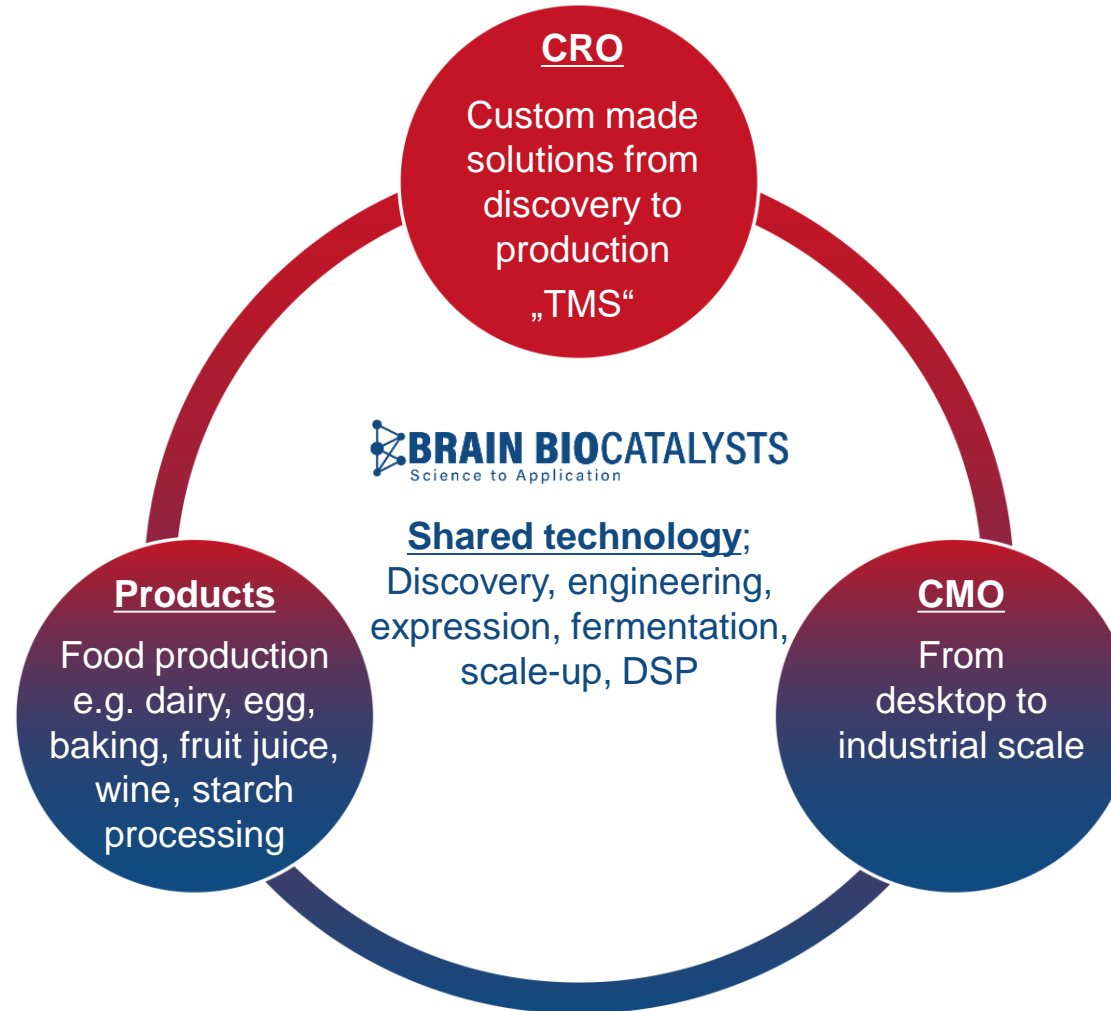
integrated solutions as well as modular customer assistance for specific challenges





# Our Unique Customer Offering: Enzyme Products, Contract Research and Manufacturing

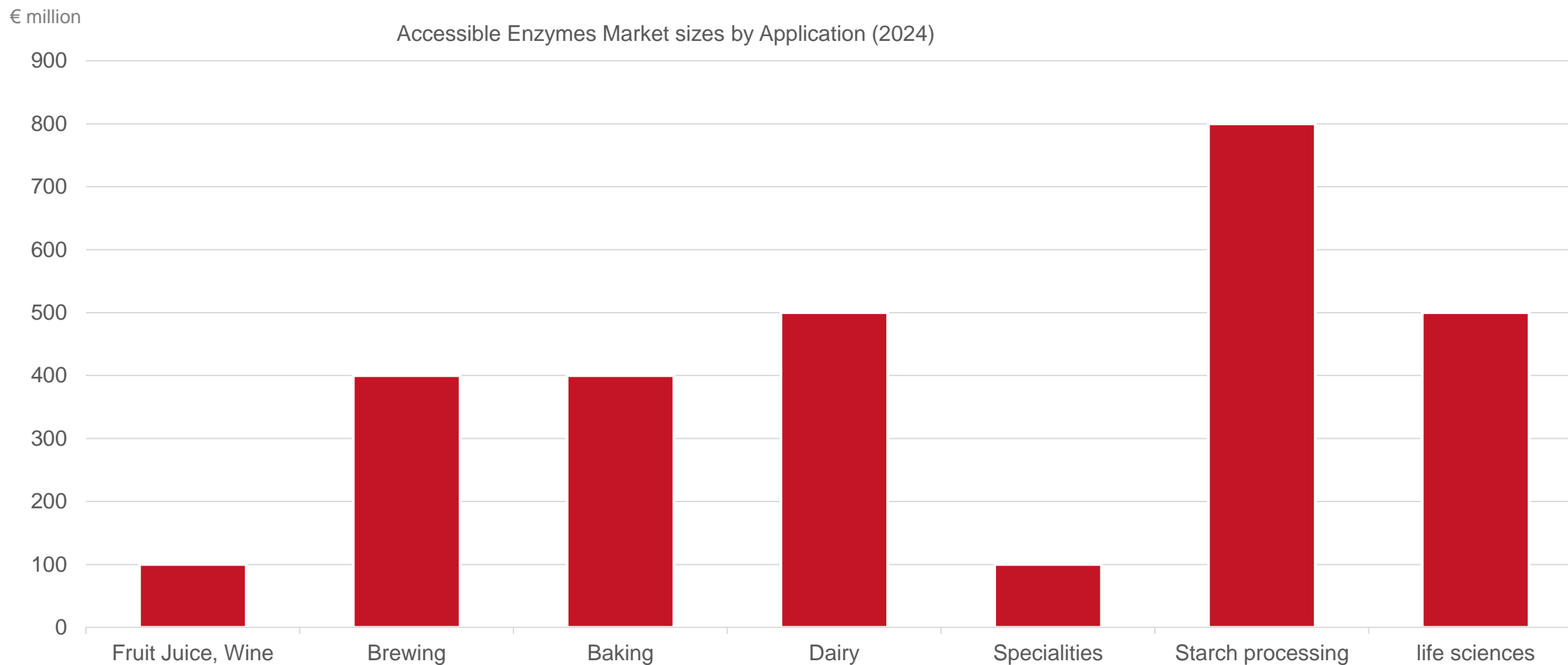
we are the “Swiss army knife” solutions provider for specialized “White Biotech” challenges – Partnerships are key



CRO = Contract Research Organization  
CMO = Contract Manufacturing Organization

# BRAINBiocatalysts Accessible Market for Enzymes Alone is well over €2bn

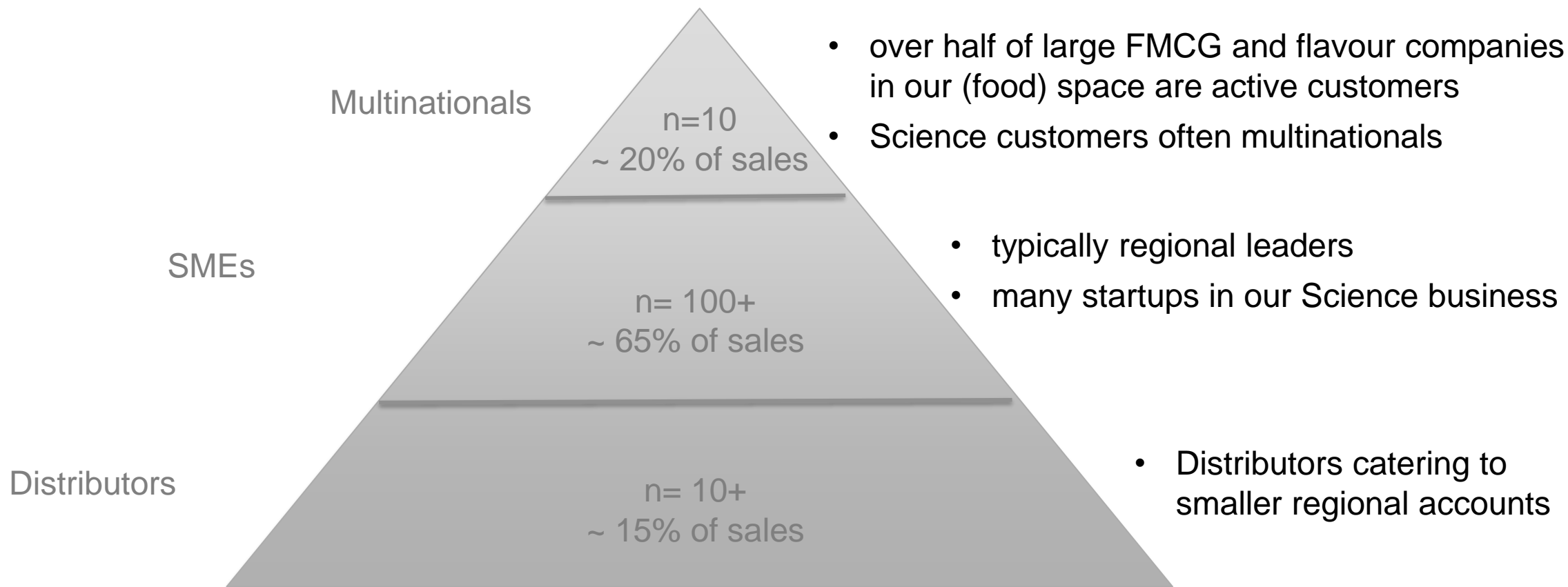
our target markets are large and our market share is still low single digit



Source: BRAIN research

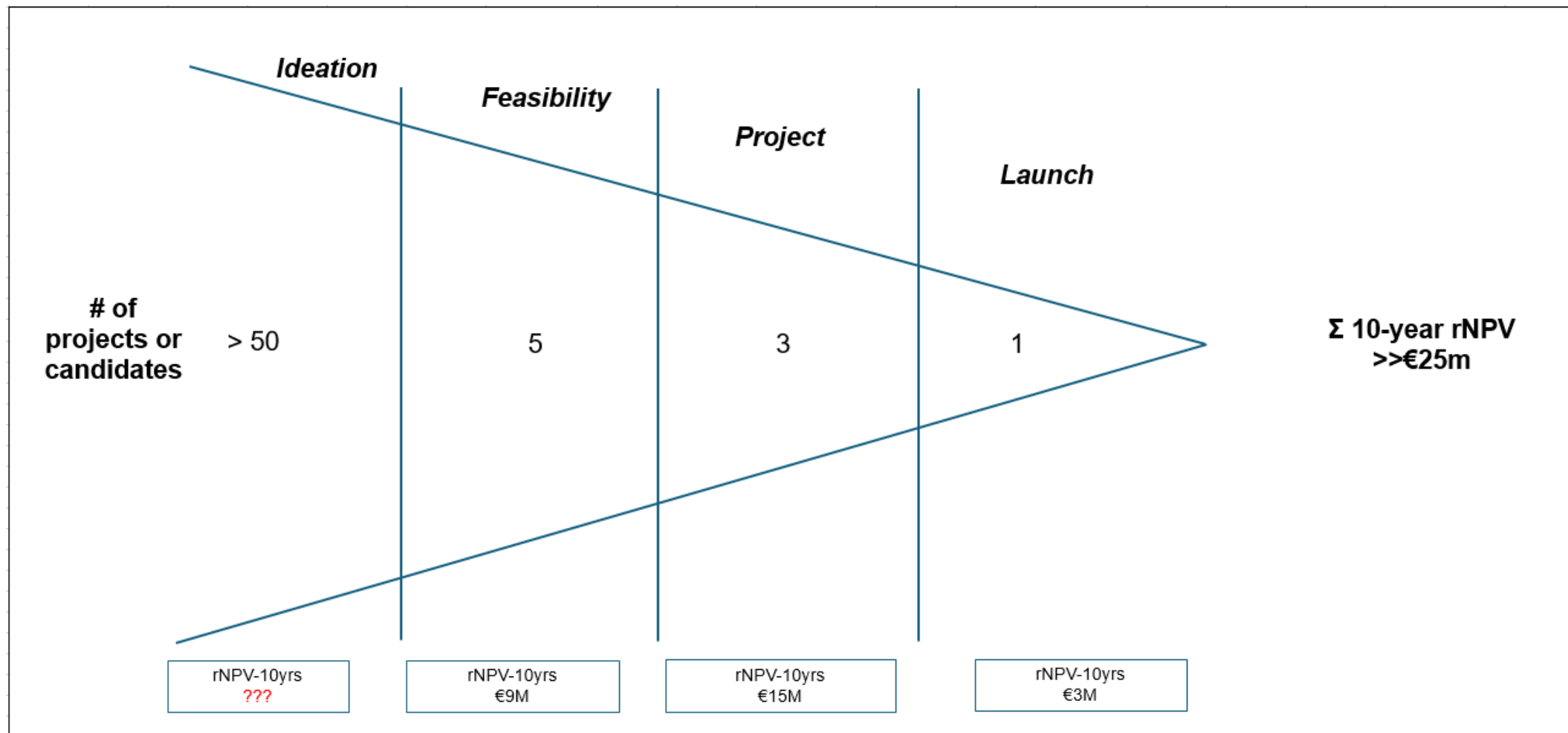
# We Have a Strongly Diversified Customer Base

we partner intensively with segment leaders



# BRAINBiocatalysts Pipeline of New Enzymes is Worth More than €25m – Even Risk Adjusted

we have been building the own enzymes pipeline for four years. New products will drive growth and profitability

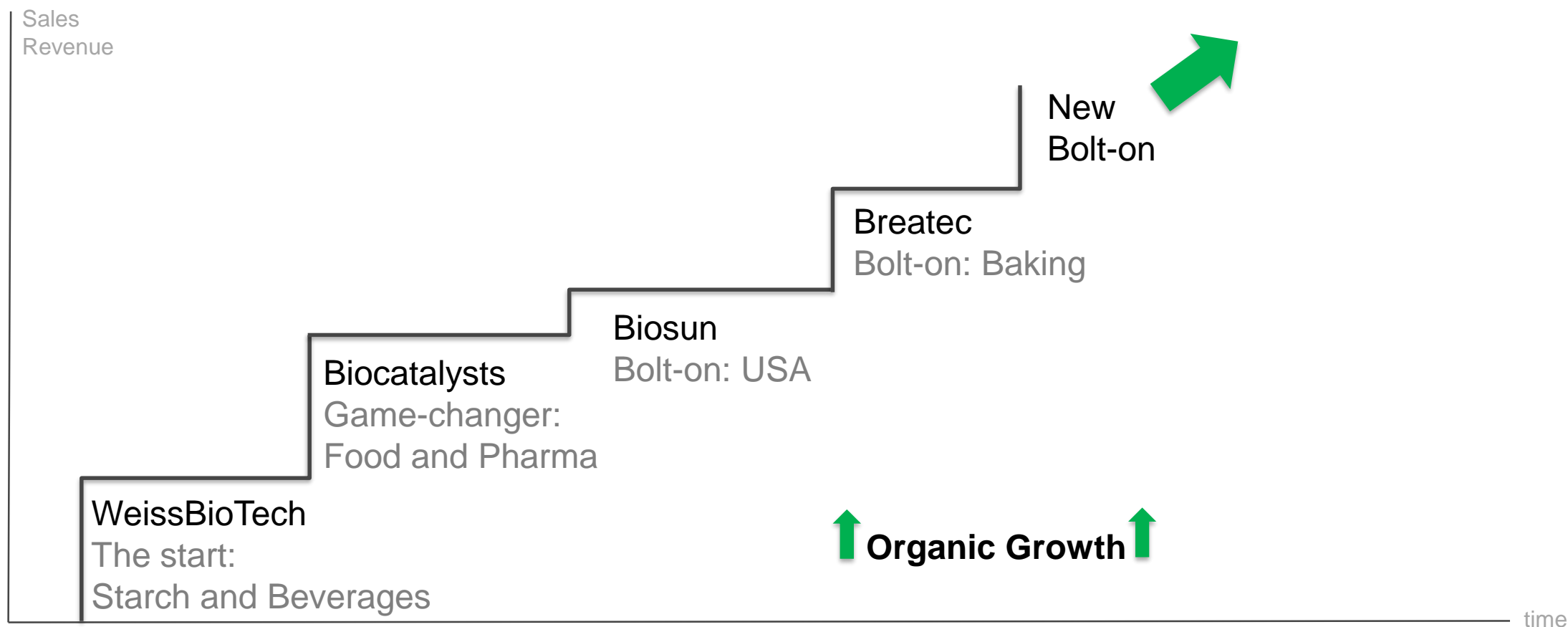


Note: Risk adjustment factors were 95% for ideation, 50% for feasibilities, 25% for project, 5% for launch. rNPV arrived at with a WACC of 8.8%.



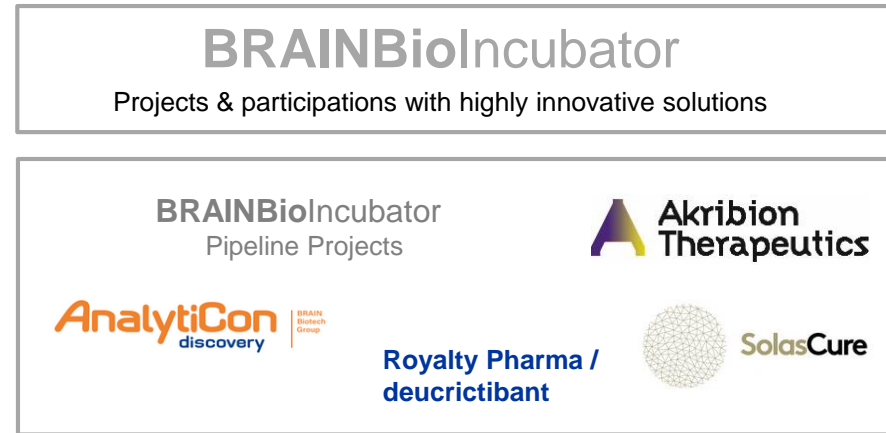
# We Envision a Bigger Future With Bolt-on M&A

our targets: grow fast, capture synergies, utilizing our technology and footprint



# Our BioIncubator Strategy Is Focused on Harvesting and Commercialization















rNPV of the combined projects well over €100m



- ❖ **Royalty Pharma/ Pharvaris (compound for rare disease “HAE”):** successful royalty monetization; up to €138m cash-in
- ❖ **Akribion Therapeutics (CRISPR-Cas for Oncology):** company successfully founded. Up to €92m cash-in plus additional royalties at zero ongoing cost
- ❖ **SolasCure (Enzyme for Wound healing):** critical Phase IIa extension in 1H, 2025
- ❖ **BioGold (valorizing urban waste):** partner to be announced
- ❖ **Brazzein (ultra potent sweet protein for sweetening):** ongoing project
- ❖ **Pipeline of New projects:** will be announced when ready

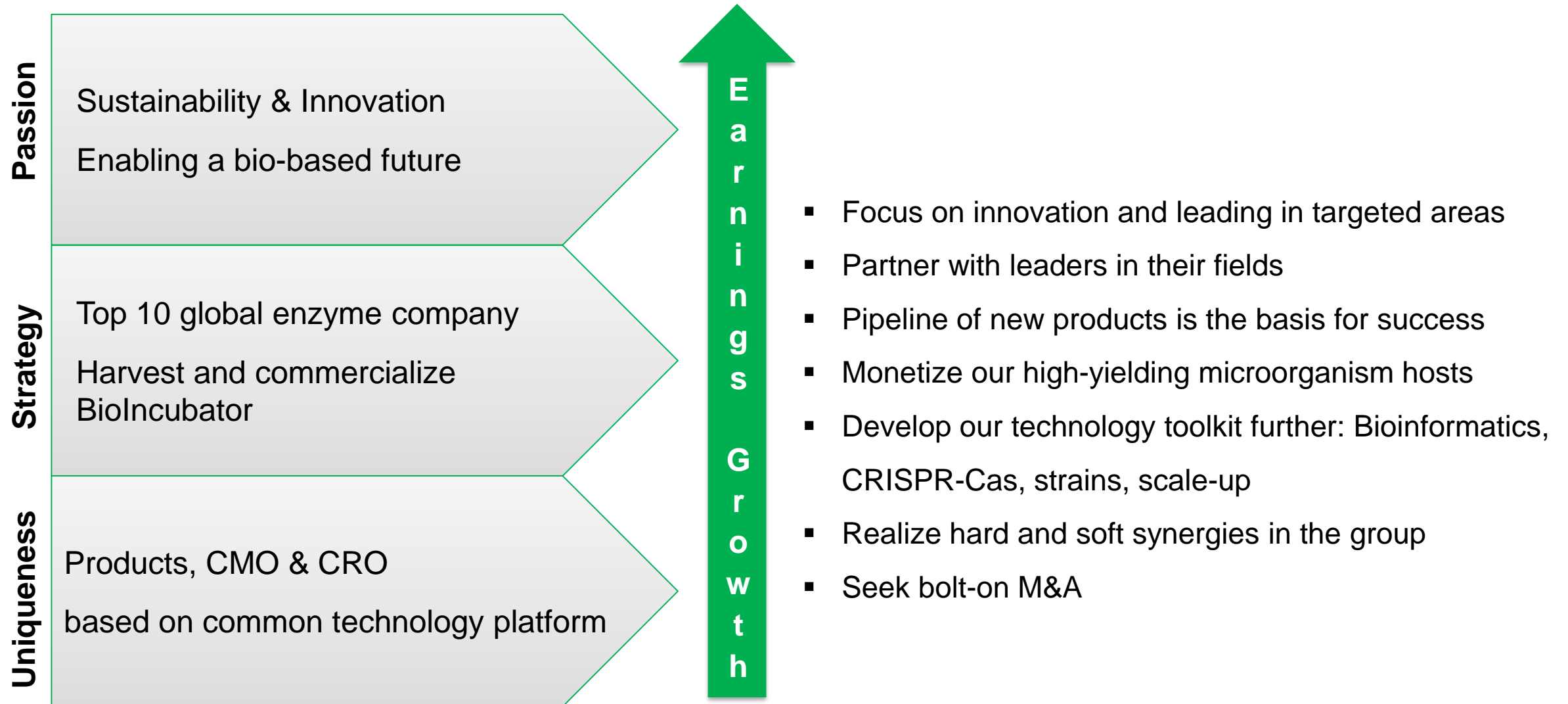
# BRAIN Biotech Is Unique: the Only Integrated Biosolutions & Bioproducts Company

with our customer offering, no single company competes directly with us

| Wide Capability White Biotech Leaders  | Targeted Enzyme Specialists   | Focused Biotechnology  | Contract Manufacturing   | BioEconomy Companies   |
|--|---|--|--|--|
| <p>novonosis</p>  | <p>dsm-firmenich </p>   <p>AMANO<br/>Amano Enzyme</p>  <p>AB Enzymes<br/>an ABF Ingredients company</p> |  <p>GINKGO<br/>BIOWORKS</p>  <p>CODEXIS®</p>  <p>ArcticZymes<br/>Technologies</p> |  <p>olon</p>  <p>fermic</p>  <p>Bio Base Europe<br/>Pilot Plant</p> |  <p>Better<br/>Dairy</p>  <p>Formo</p>  <p>bonumose</p> |
| "Products"   |   | "CRO"  | "CMO"  | "end-use"  |

# Summary

BRAIN is well positioned for earnings growth





# Thank you very much for your interest.



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