

SPECIALTY BEER INNOVATION

**ADVANCING SPECIALTY
BREWING WITH TECH &
LOCAL VALUE CREATION**



KMITL
สถาบันเทคโนโลยี
พระจอมเกล้า
เจ้าคุณทหารลาดกระบัง

School of
**Food
Industry**
KMITL
คณะอุตสาหกรรมอาหาร
สถาบันเทคโนโลยีพระจอมเกล้าเจ้าคุณทหารลาดกระบัง

FOOD *focus*
Thailand

ASST.PROF. PUTTHAPONG PHUMSOMBAT
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04 AUG 2026

BIOGRAPHY

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 - Post Doc (Department of Food Technology) Chulalongkorn University
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 - B. Sc. (Veterinary Technology) Kasetsart University
- Field of interest: Biotechnology, Microbiology, Molecular Genetic, Prebiotic, Probiotic, Postbiotic, Synbiotic, Healthy Food, Functional Food

**SYNBIOTIC FERMENTATION
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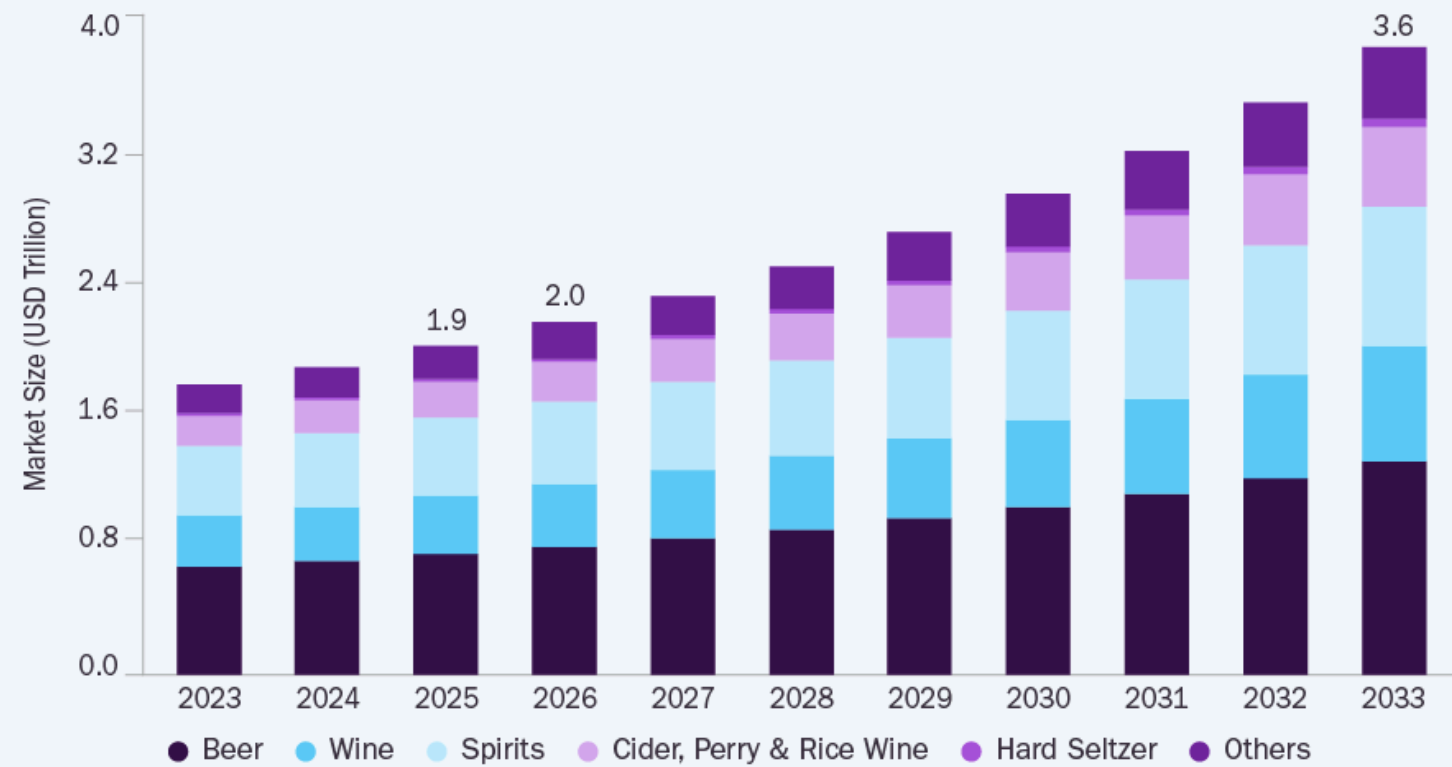




**BEER IS NOT JUST A BEVERAGE.
IT IS PART OF CULTURE.**

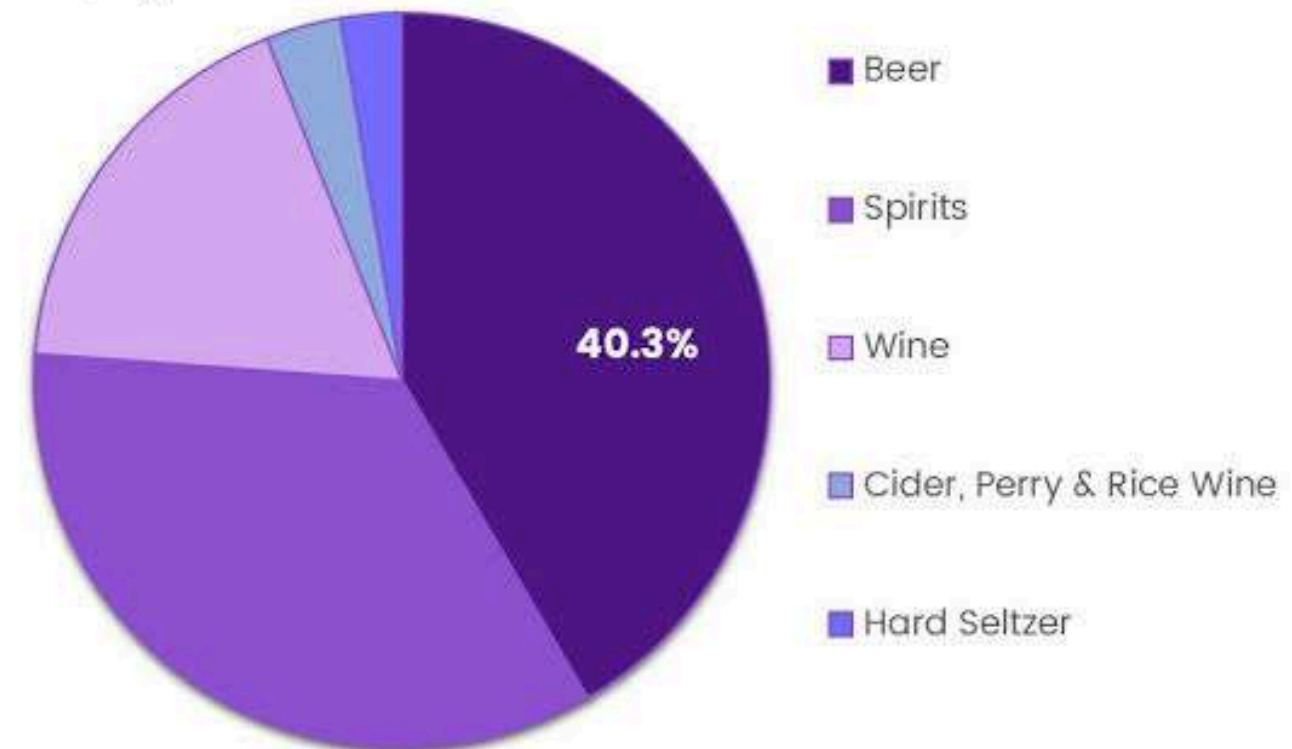
Alcoholic Drinks Market

Size, by Type, 2023 - 2033 (USD Trillion)



Global Alcoholic Drinks Market

Share, by Type, 2025 (%)



1,893.5 B

Total Market Size
(USD Billion), 2025

8.7%

CAGR
2026-2035







WHAT HAS CHANGED IN THE BEER MARKET?

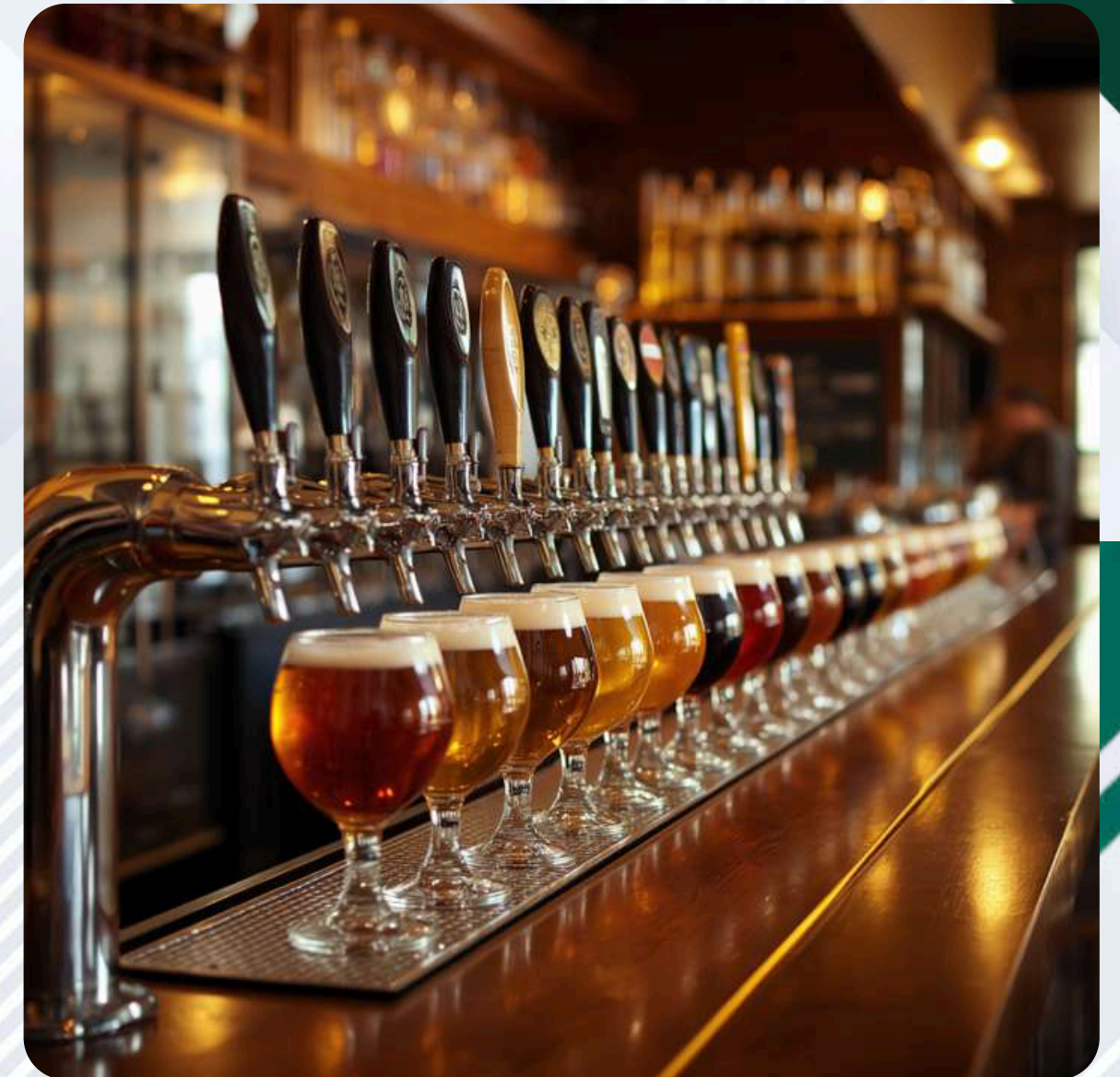
WHAT HAS CHANGED IN THE BEER MARKET



Mass-market era → Focus on volume & consistency
Craft beer movement → Demand for variety and authenticity
Premiumization → Consumers drink less, but choose better
Today → Innovation, local identity, and experience drive growth

WHY SPECIALTY BEER MATTERS NOW

Consumers no longer buy beer for alcohol alone. They seek experience, authenticity, and value. Specialty beer combines innovation, local identity, and premiumization, making it one of the fastest-evolving segments in the beverage industry.



FROM CRAFT BEER TO NEXT-GENERATION BEER

- Craft beer changed how people define quality and creativity.
- Next-generation beer goes beyond style through science and technology.
- Innovation is driven by novel ingredients, advanced fermentation, and digital brewing.
- New opportunities include alcohol-free, functional, and hybrid beer.



KEY CONSUMER SHIFTS

Experience Seeking

- Unique flavors
- Storytelling
- Memorable drinking experiences

Health Consciousness

- Lower alcohol & 0% options
- Better-for-you choices
- Clean-label ingredients

Authenticity

- Local identity
- Transparency
- Craftsmanship & provenance



PREMIUMIZATION: LESS BUT BETTER

Consumers are drinking less but choosing better

- Quality over quantity
- Unique flavors & craftsmanship
- Storytelling creates value
- Consumers pay for experience, not just beer



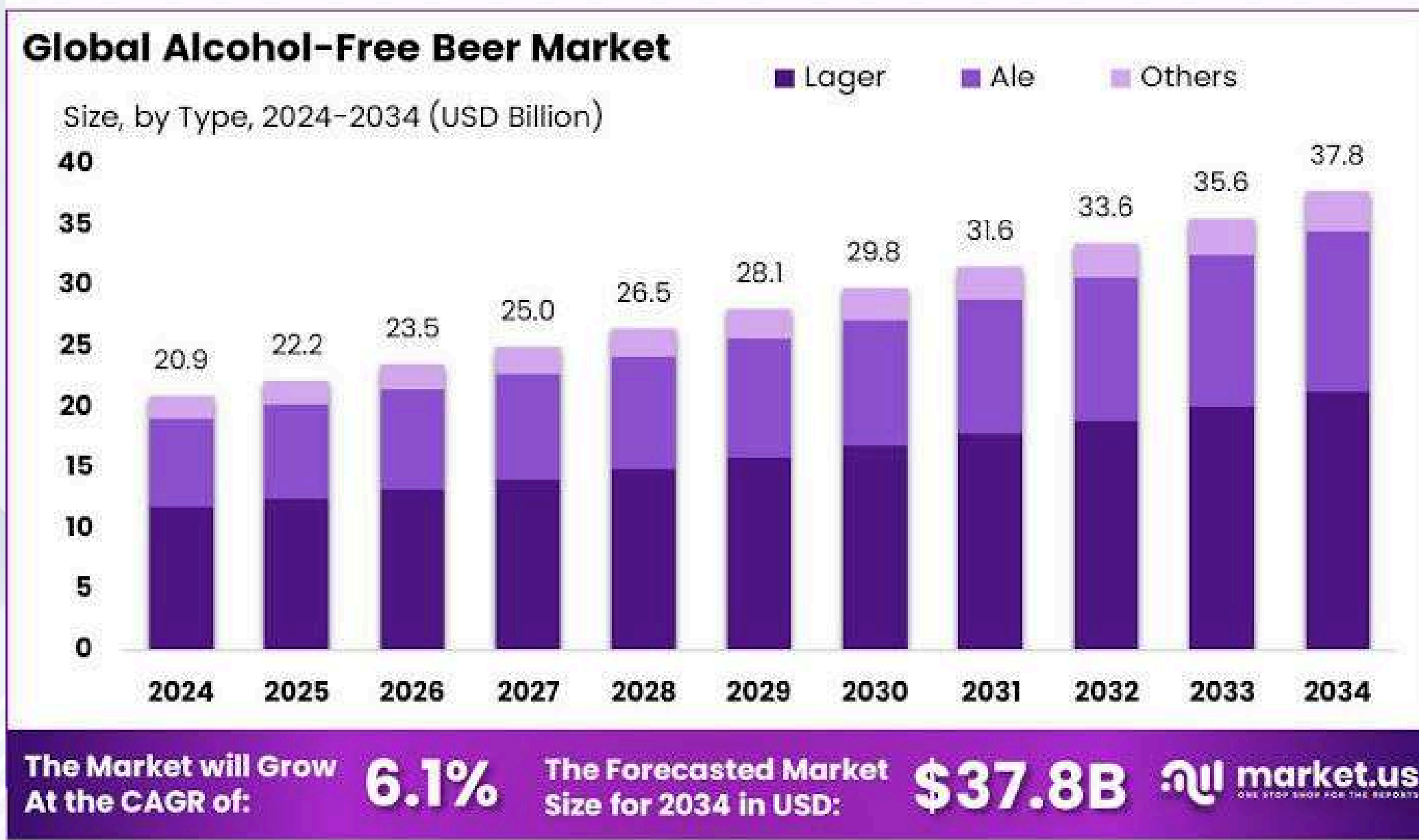


0% BEER AS A NEW CATEGORY

0% beer is no longer a substitute.
It is a category of its own.

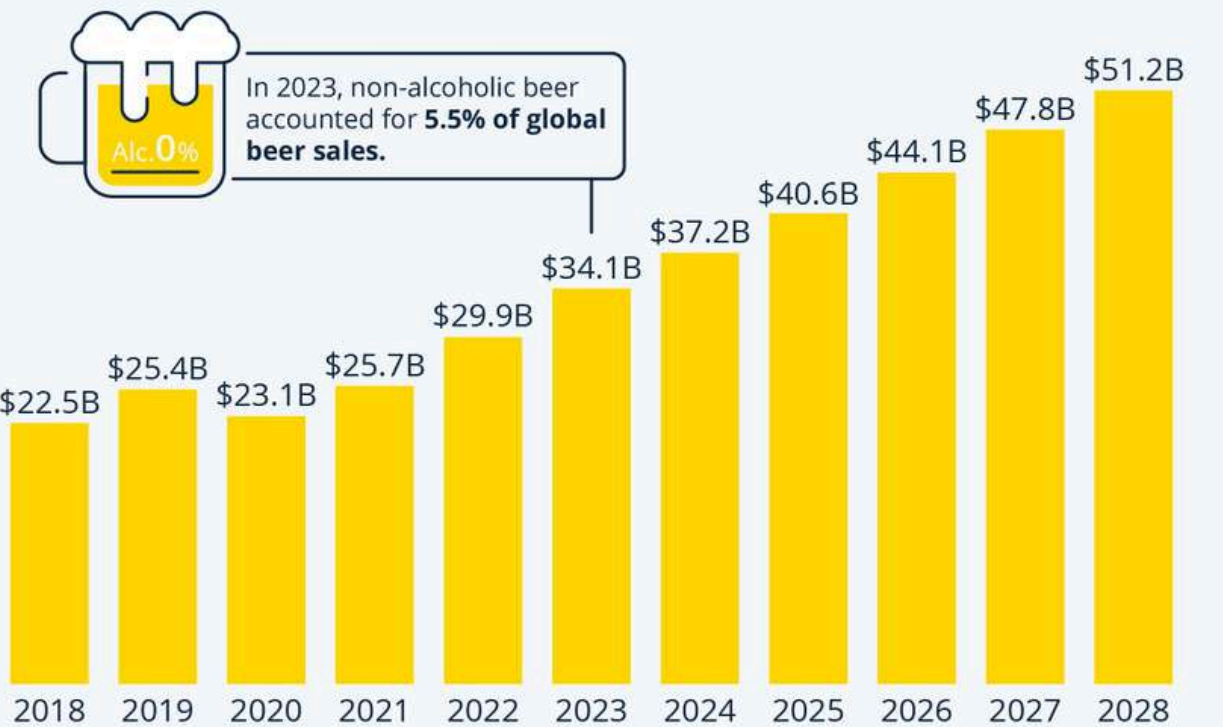
- One of the fastest-growing beer segments
- Driven by health & mindful drinking
- Expanding drinking occasions
- Attracting new consumer groups





Buzz-Free Drinking? The Rise of Non-Alcoholic Beer

Estimated global sales of non-alcoholic beer



Source: Statista Market Insights



statista



WHY CONSUMERS CHOOSE 0% BEER

Health & Wellness

- Mindful drinking
- Better-for-you lifestyle

More Drinking Occasions

- Inclusive social occasions
- Drive, work & family-friendly

Better Taste

- Advanced brewing technology
- Improved flavor & mouthfeel



**CONSUMERS ARE NOT
REPLACING BEER.**

**THEY ARE EXPANDING
THEIR CHOICES.**



TASTE & EXPERIENCE IN 0% BEER

The Challenge

- Deliver a true beer experience without alcohol
- Preserve aroma, body, and flavor complexity

The Innovation

- Advanced brewing & dealcoholization technologies
- Better ingredient and flavor management

The Result

- Improved taste and mouthfeel
- Premium 0% beer is now a consumer choice

FUNCTIONAL BEER: MORE THAN JUST ALCOHOL

Beer is evolving from an alcoholic beverage to a platform for innovation.

- Health-conscious consumers
- Active lifestyle
- Premium experiences
- Better-for-you choices



TYPES OF FUNCTIONAL BEER

1. Gut Health
2. Botanical & Natural Bioactives
3. Nutrition Enhancement
4. Cognitive & Wellness
5. Sports & Recovery



TYPES OF FUNCTIONAL BEER

Gut Health

- Prebiotic
- Probiotic
- Postbiotic



TYPES OF FUNCTIONAL BEER

Botanical & Natural Bioactives

- Polyphenols
- Herbal extracts
- Adaptogens



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TYPES OF FUNCTIONAL BEER

Nutrition Enhancement

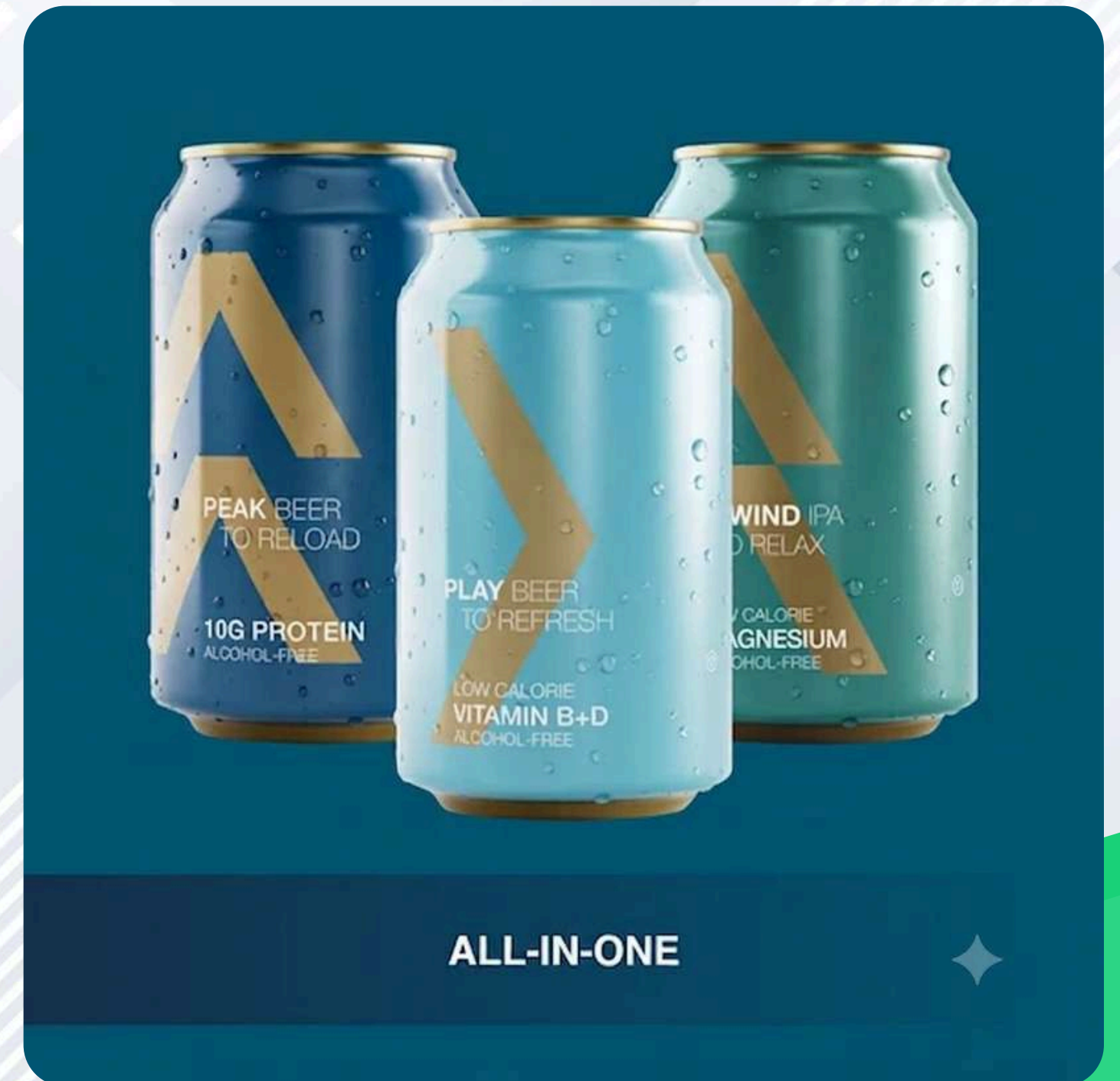
- Vitamins
- Minerals
- Protein
- Fiber



TYPES OF FUNCTIONAL BEER

Nutrition Enhancement

- Vitamins
- Minerals
- Protein
- Fiber



TYPES OF FUNCTIONAL BEER

Cognitive & Wellness

- Relaxation
- Mood
- Focus



TYPES OF FUNCTIONAL BEER

Sports & Recovery

- Electrolytes
- Isotonic concept
- Low-calorie



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WHERE FUNCTIONAL BEER FITS

Wellness

- Better-for-you lifestyle
- Botanicals & probiotics
- Mindful drinking



Active Lifestyle

- Recovery & hydration
- Protein & electrolytes
- Post-workout occasions



Relaxation

- Wind-down moments
- Stress relief positioning
- Evening rituals



INNOVATION WITHOUT LOSING BEER IDENTITY

Innovation should enhance beer, not redefine it.

Preserve the Core

- Flavor, aroma & brewing character

Create Meaningful Innovation

- Local ingredients with a clear purpose

Respect Tradition

- Heritage inspires innovation

Earn Consumer Trust

- Familiar enough to enjoy, different enough to remember

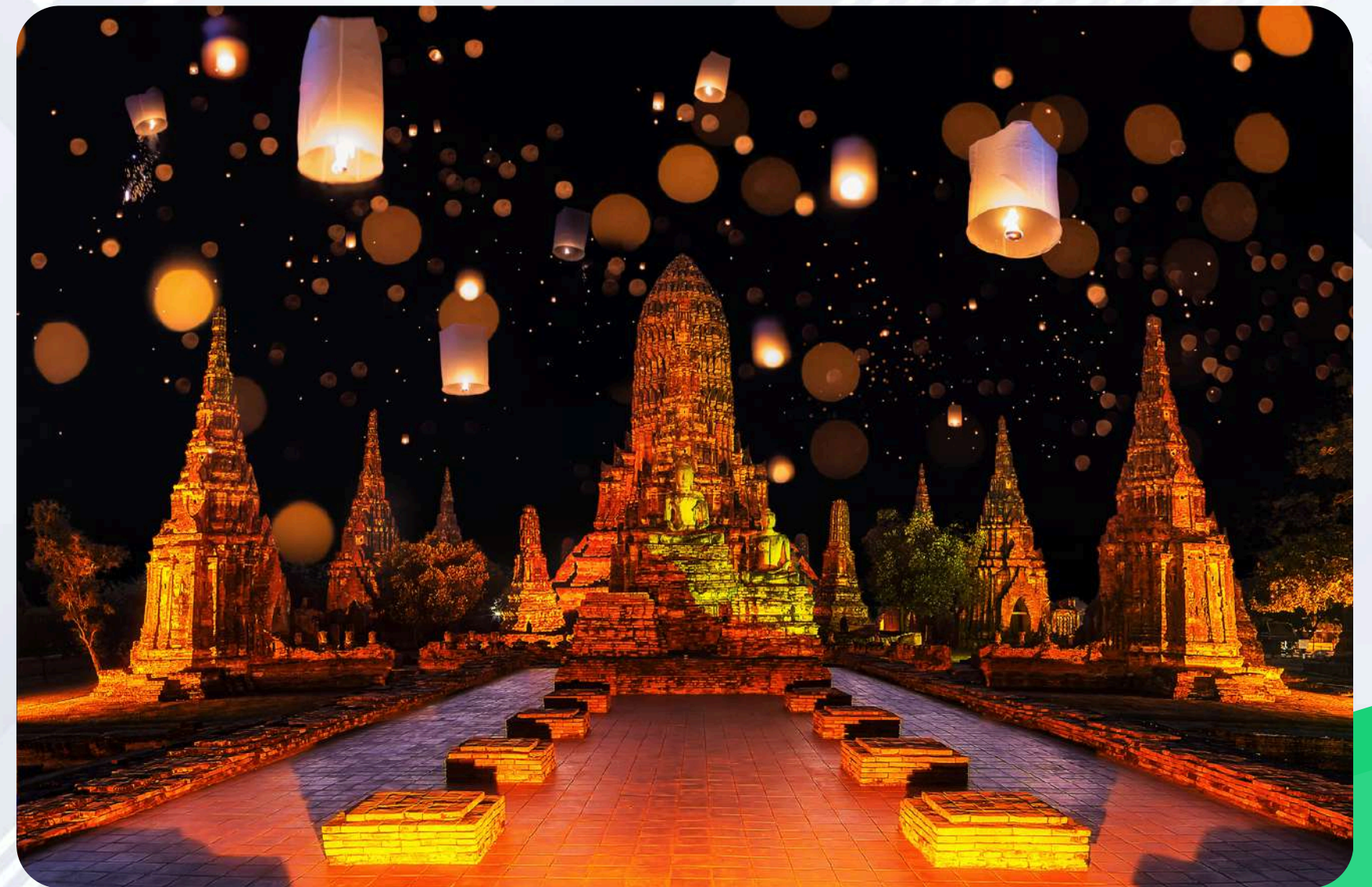




**DON'T INNOVATE TO BE DIFFERENT.
INNOVATE TO BE MEANINGFUL.**

THAILAND'S OPPORTUNITY IN SPECIALTY BEER

1. Unique Ingredients
2. Rich Food Culture
3. Tourism & Storytelling



THAILAND'S OPPORTUNITY IN SPECIALTY BEER

Unique Ingredients

- Tropical fruits
- Herbs & botanicals
- Local rice



THAILAND'S OPPORTUNITY IN SPECIALTY BEER

Rich Food Culture

- Thai cuisine
- Fermentation heritage
- Culinary creativity



THAILAND'S OPPORTUNITY IN SPECIALTY BEER

Tourism & Storytelling

- Local experiences
- Destination products
- Premium identity



WHY LOCAL INGREDIENTS CREATE PREMIUM VALUE

Authenticity & Origin

- A unique sense of place
- Provenance builds trust
- Consumers pay for authenticity

Storytelling

- Every ingredient has a story
- Creates emotional connection
- Adds value beyond taste

Differentiation

- Difficult to replicate
- Distinctive regional identity
- Long-term competitive advantage



INGREDIENT-STORY-EXPERIENCE FRAMEWORK

INGREDIENT

- Unique local ingredients
- Authentic origin
- Impossible to replicate



STORY

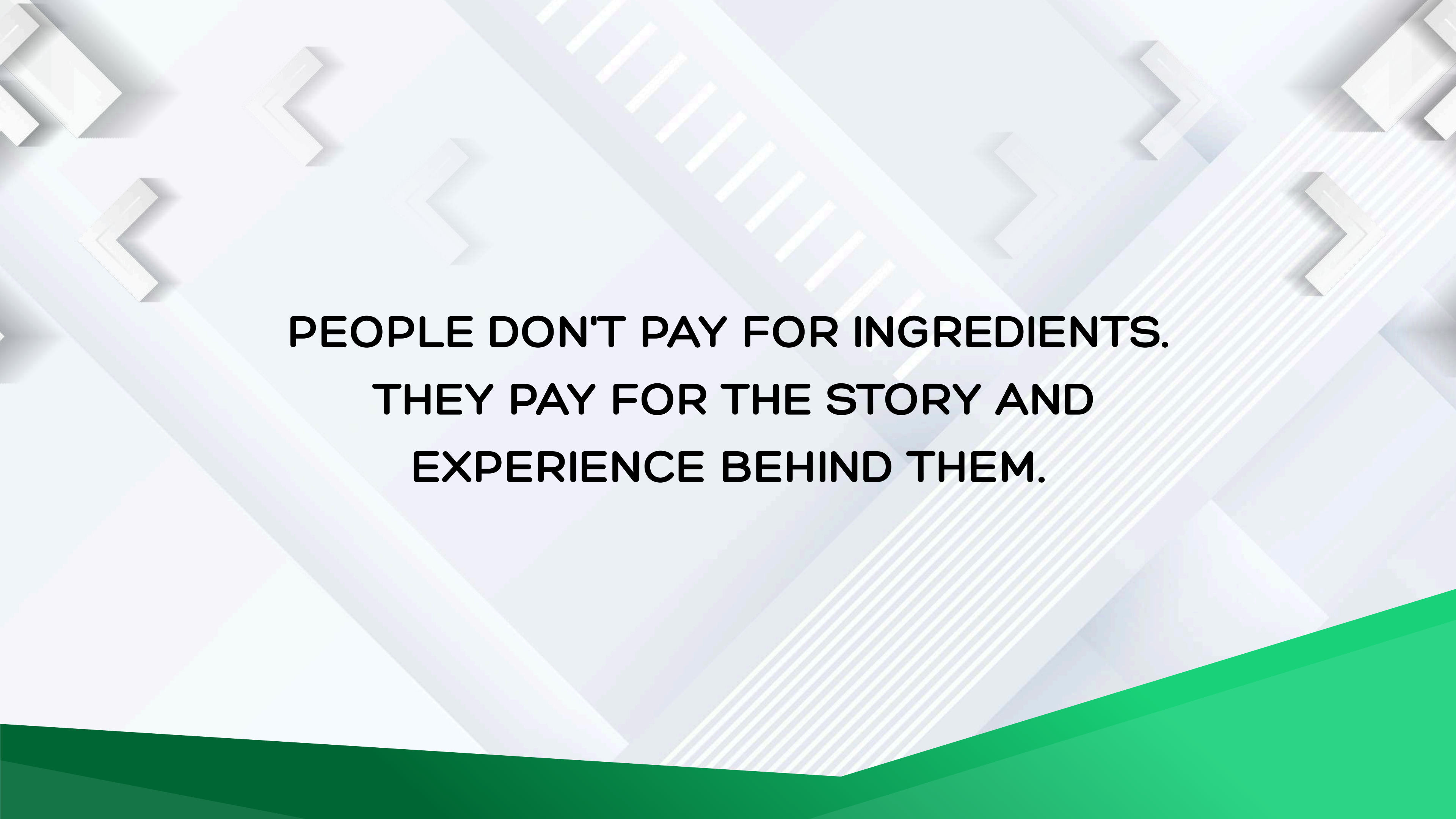
- Farmer & community
- Culture & tradition
- Emotional connection



EXPERIENCE

- Aroma & flavor
- Memorable occasions
- Brand loyalty



The background features a light blue and white geometric pattern with various shapes, including chevrons and a series of parallel lines. A solid green wavy line runs along the bottom edge of the image.

**PEOPLE DON'T PAY FOR INGREDIENTS.
THEY PAY FOR THE STORY AND
EXPERIENCE BEHIND THEM.**

TROPICAL FRUITS IN BEER CONCEPTS

Thailand's tropical fruits can create unique beer experiences.

- Distinctive aroma & flavor
- Strong local identity
- Seasonal innovation
- Premium storytelling



FROM FRUIT TO BRAND

Thai Fruit



Unique Flavor



Local Story



Premium Beer



HERBS, BOTANICALS & THAI IDENTITY

Thai botanicals create flavors that cannot be replicated elsewhere.

- Distinctive aroma & flavor
- Strong Thai identity
- Premium differentiation
- Authentic storytelling



BOTANICALS CREATE IDENTITY

- Lemongrass
- Butterfly pea
- Kaffir lime
- Pandan



RICE, GRAINS & FERMENTATION HERITAGE

Rice is more than an ingredient, it is part of Thailand's fermentation heritage.

Unique Grains

- Jasmine rice
- Sticky rice
- Indigenous rice varieties



RICE, GRAINS & FERMENTATION HERITAGE

Rice is more than an ingredient, it is part of Thailand's fermentation heritage.

Fermentation Heritage

- Traditional fermentation knowledge
- Unique flavor development
- Cultural identity



RICE, GRAINS & FERMENTATION HERITAGE

Rice is more than an ingredient, it is part of Thailand's fermentation heritage.

Global Opportunity

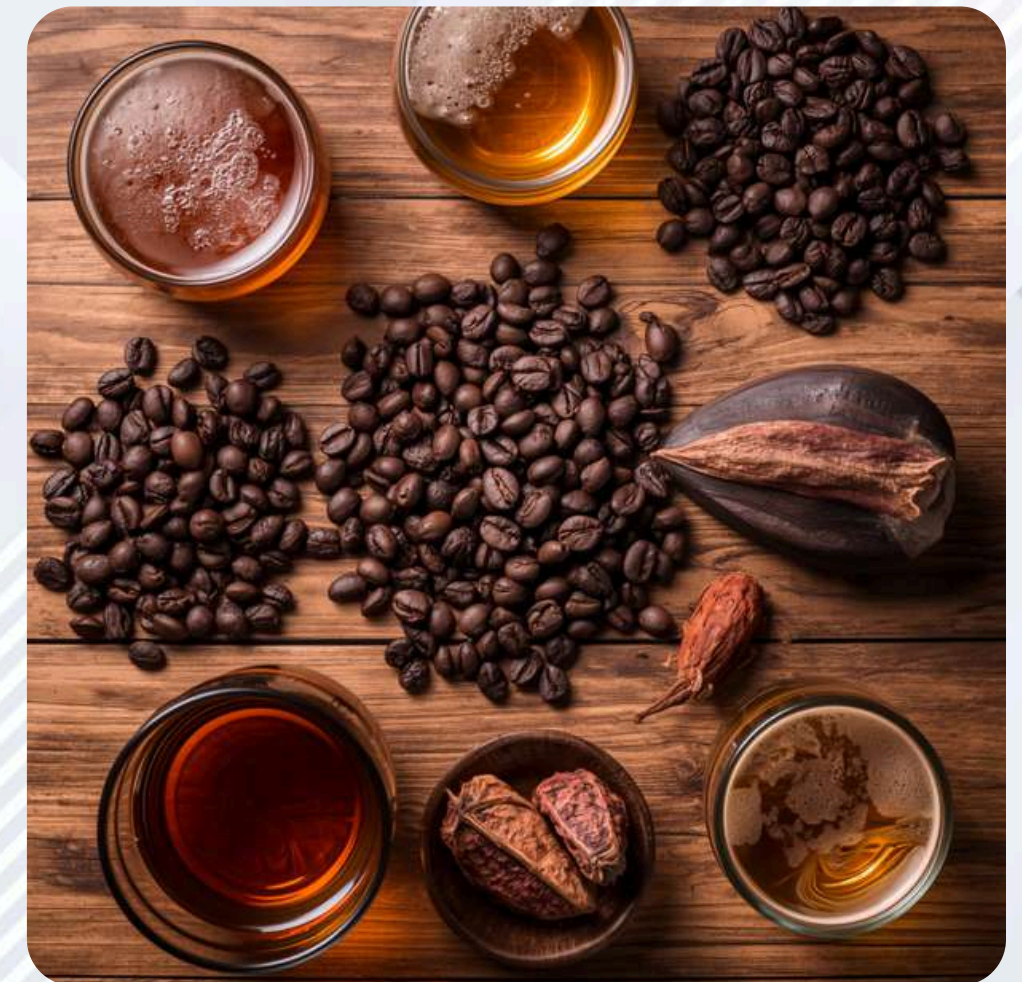
- Distinctive beer concepts
- Premium positioning
- Authentic Thai story



TEA, COFFEE & COCOA: FROM LOCAL CROPS TO SPECIALTY BEER

Thailand's premium crops offer exciting opportunities for specialty beer innovation.

- Single-origin coffee
- Thai cocoa
- Local tea
- Collaboration with local producers



SINGLE-ORIGIN COFFEE

Coffee adds origin, complexity, and premium identity to specialty beer.

- Distinctive regional flavor profiles
- Single-origin storytelling
- Strong premium positioning

Opportunity

- Coffee Stout
- Coffee Porter



THAI COCOA

Thai cocoa brings a new dimension to dark beer innovation.

- Rich chocolate aroma
- Unique tropical terroir
- Supports local cocoa producers

Opportunity

- Cocoa Stout
- Chocolate Porter



LOCAL TEA

Tea offers elegant aroma and cultural identity beyond traditional beer ingredients.

- Floral & herbal complexity
- Regional tea identity
- Strong cultural story

Opportunity

- Tea IPA
- Botanical Ale



THREE WAYS TO KEEP BEER EXCITING

Seasonal

- Right ingredient, right season.

Local

- Celebrate local harvests.

Collaborative

- Create together, tell together.



PRODUCT INNOVATION

Product Innovation

- New flavors & formats
- Seasonal & limited editions
- Different drinking experiences



Technical Innovation

- 0% & low-ABV beer
- Novel fermentation
- Functional ingredients



Brand Innovation

- Strong origin story
- Clear consumer purpose
- Premium positioning



PACKAGING INNOVATION

Design

- Reflect local identity
- Premium visual appeal
- Memorable shelf presence



Sustainability

- Recyclable materials
- Lightweight packaging
- Consumer value alignment



Consumer Experience

- QR code storytelling
- Limited editions
- Collectible packaging



PROCESS & TECHNOLOGY

Precision Brewing

- Better process control
- Consistent quality
- Scalable production



Smart Brewing

- Digital monitoring
- Data-driven decisions
- Improved efficiency



Faster Innovation

- Pilot-scale brewing
- Rapid prototyping
- Faster product development



DIGITAL STORYTELLING

A great beer deserves a great story.

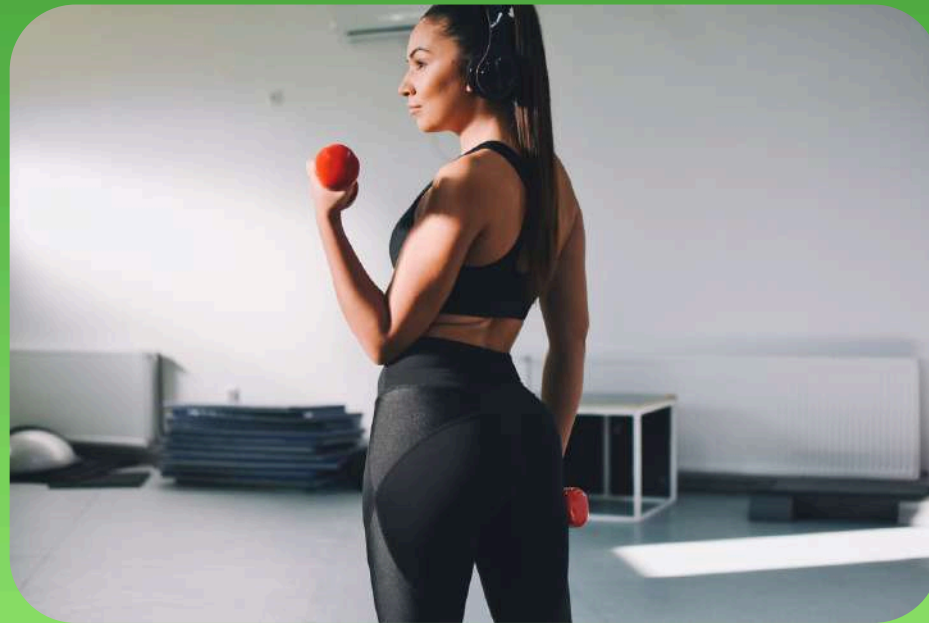
- Share the Journey
- Build Community
- Extend the Experience



NEW DRINKING OCCASIONS

Everyday & Wellness

- Morning & daytime
- Post-workout
- Mindful lifestyle



Social & Inclusive

- Designated drivers
- Mixed-group gatherings
- Professional events



Premium Experiences

- Food pairing
- Brewery tourism
- Seasonal celebrations



WHAT CONSUMERS ACTUALLY PAY FOR

Experience

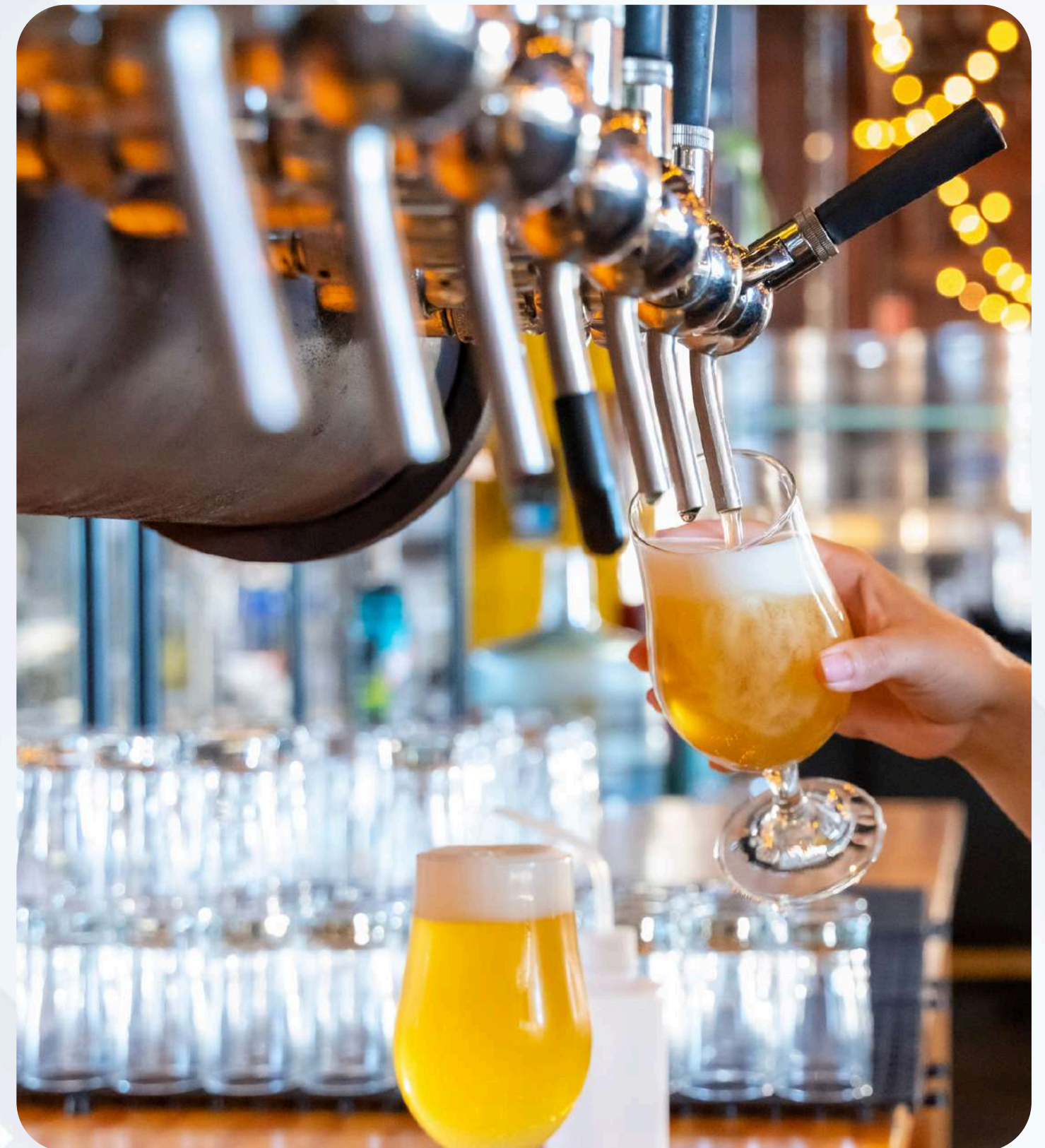
- Memorable drinking moments
- Sensory journey
- Food pairing & occasion

Craftsmanship

- Small-batch quality
- Local ingredients
- Brewing expertise

Story

- Authentic origin
- People & culture
- Meaning behind the beer



ROADMAP FOR THAI PRODUCERS

1. Start with one unique local ingredient
2. Validate with consumers
3. Build the story & brand
4. Scale with technology
5. Grow through partnerships



KEY TAKEAWAYS

- Beer is evolving beyond alcohol.
- Local ingredients create global value.
- Technology enables innovation.
- Story transforms products into premium brands.



**DON'T COMPETE BY COPYING THE WORLD.
COMPETE BY SHOWING THE WORLD
WHAT ONLY THAILAND CAN OFFER.**





**THANK YOU
FOR YOUR
KIND ATTENTION**