

# PepsiCo R&D: External Innovation & Partnerships

PepsiCo R+D

eXternal innovation 

# ABOUT PEPSICO



PepsiCo products are enjoyed by consumers more than one billion times a day in more than 200 countries and territories around the world. PepsiCo’s product portfolio includes a wide range of enjoyable convenient foods and beverages, including many iconic brands that generate more than \$1 billion each in estimated annual retail sales.

## GLOBAL BEVERAGES



### PERFORMANCE



Nearly  
**\$92 billion**  
net revenue in 2024

### BRANDS



Many iconic  
**billion-dollar**  
brands

## GLOBAL CONVENIENT FOODS



### SCALE



More than **200**  
countries  
& territories

### PEOPLE



Approximately  
**319,000**  
employees\*

\*As of December 28, 2024

# OUR HISTORY



Pepsi-Cola created by Caleb Bradham 1898



Creation of Frito-Lay through the merger of the Frito Company and H.W. Lay Company 1961



be more tea  
Formed Pepsi Lipton Tea Partnership, joint venture between Pepsi-Cola and Unilever 1991



Merger with Quaker Oats, which also brought sports drink Gatorade into the portfolio 2001



Strategic beverage alliance with Master Kong Beverage, one of the leading food and beverage companies in China 2012

Acquisition of CytoSport, a leading provider of protein products, including Muscle Milk 2019



Launch of pep+ (PepsiCo Positive) 2021



PepsiCo acquires full ownership of Sabra & Obela 2024

1932  
First recipe for Fritos Corn Chips and establishment of H.W. Lay & Company



1965  
PepsiCo founded through the merger of Pepsi-Cola and Frito-Lay, creating a competitive advantage fueled by complementary snacks and beverages



1994  
Partnered with Starbucks to jointly develop ready-to-drink coffee beverages



2009  
PepsiCo's Food for Good launches



2018  
Acquisition of SodaStream



2020  
Acquisition of Pioneer Foods, BFY Brands, Be & Cheery, and Rockstar Energy Beverages



2023  
Pepsi launches new logo  
Starry debut



2025  
Acquisition of Siete and poppi



## MISSION

**Create more smiles with every sip and every bite**

## VISION

**Be the global leader in beverages and convenient foods  
by winning with **

## THE PEPSICO WAY

### FASTER

**Winning in the marketplace,  
being more consumer-centric  
and accelerating investment  
for topline growth**

### STRONGER

**Transforming our capabilities, cost,  
and culture by operating as one  
PepsiCo, leveraging technology,  
winning locally and globally enabled**

### BETTER

**Creating growth and value by  
operating within planetary  
boundaries and inspiring positive  
change for the planet and people**



**BE  
CONSUMER  
CENTRIC**



**ACT AS  
OWNERS**



**FOCUS &  
GET THINGS  
DONE FAST**



**VOICE  
OPINIONS  
FEARLESSLY**



**RAISE THE BAR  
ON TALENT  
& DIVERSITY**



**CELEBRATE  
SUCCESS**



**ACT  
WITH  
INTEGRITY**

# STRONG PORTFOLIO OF ICONIC BRANDS

PEPSICO



# Introducing pep+

# pep+ overview

Our vision is to **Be the Global Leader in Convenient Foods and Drinks**  
by **Winning with PepsiCo Positive (pep+)**.

pep+ is our strategic end-to-end transformation that places sustainability at the center of how we will create growth and value by operating within planetary boundaries and inspiring positive change for the **planet and people**.

**pep+ HAS 3 INTERCONNECTED PILLARS:**



## POSITIVE AGRICULTURE

We are working to source our crops and ingredients in ways that restore the earth and strengthen farming communities.



## POSITIVE VALUE CHAIN

We are helping to build a circular and inclusive value chain.



## POSITIVE CHOICES

We are inspiring people through our brands to make choices that create more smiles for them and the planet.



# pep+ KEY Pillars



## POSITIVE AGRICULTURE

Spread regenerative agriculture across

**7 million acres by 2030**



Sustainably source\*

**100%** of our key crops + ingredients by 2030



Improve the livelihoods of more than

**250,000**

people in our agricultural supply chain and communities by 2030



## POSITIVE VALUE CHAIN

Achieve

**NET-ZERO EMISSIONS** by 2040



**NET WATER POSITIVE**

Reduce use + replenish more than we use by 2030



Cut virgin plastic per serving by

**50%**

across our global beverages & convenient foods portfolio by 2030 against a 2020 baseline



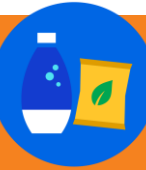
Execute our DE&I agenda, invest

**\$570+** million by 2030



## POSITIVE CHOICES

Evolve our portfolio of products so they are better for the planet + people, by:



- ✓ Diversifying ingredients
- ✓ Expanding position in nuts & seeds category
- ✓ Accelerating science-based targets
- ✓ Scaling little to no single-use packaging platforms



**Leverage our iconic brands to inspire positive choices**

Lay's will support farmers moving to regenerative practices



\*For grower-sourced crops, sustainably sourced refers to meeting the independently verified environmental, social and economic principles of PepsiCo's Sustainable Farming Program (SFP). For supplier-sourced crops, sustainably sourced is achieved through a third-party standard that has been benchmarked as equivalent to the SFP or, in limited regions, a continuous improvement program addressing the main environmental and social risks with growing the relevant crop.



# 2022 Sustainability Progress Highlights



## Positive Agriculture

**900K+**

acres farmed with regenerative farming practices toward goal of 7 million by 2030



**11K+**

people positively impacted in our agricultural supply chain and communities



## Positive Value Chain



**22%**

improvement of our operational water-use efficiency in high water- risk areas (versus a 2015 baseline)

**23%**

reduction in Scope 1 and 2 emissions, toward our goal of 75% by 2030 (versus a 2015 baseline)



**~8.7B**

liters of water replenished into local watersheds in 2022

## Positive Value Chain



**22%**

improvement of our operational water-use efficiency in high water- risk areas (versus a 2015 baseline)

Women and men continued to earn within 1% of each other, and women hold

**44%**

of our manager positions worldwide

In the U.S., we increased our Black managerial representation to

**9.0%**

making progress toward our goal of 10% by 2025

and we increased our Hispanic managerial representation to

**10.1%**

meeting our 2025 goal of 10% three years early

**>80MM**

people reached since 2006 with safe water access, toward 100 million goal by 2030



## Positive Choices



**75%**

of our convenient foods portfolio volume in our top 23 convenient foods markets met our saturated fat reduction target, maintaining our goal of ≥75% by 2025

**56%**

As of 2022, of our beverages portfolio volume in our top 26 beverage markets contained no more than 100 Calories from added sugars per 12 oz. serving, progress toward our goal of ≥67% by 2025



# Introduction to External Innovation & Partnerships

Connecting External Innovators with Internal  
R&D Opportunities

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# Open Innovation: Powering PepsiCo's Future



Open Innovation strategy keeps PepsiCo at the forefront of the Food & Beverage industry.

**We can't do it alone—disruption is everywhere**



**External partnerships help us:**

- Accelerate discovery
- De-risk innovation
- Access bold ideas

**Xi** exists to help PepsiCo R&D find and nurture those partnerships



# Who We Are: XI (External Innovation & Partnerships)



**Our Goal: Leveraging global ecosystems & partner networks to identify and bring 'outside' influences and technology into the R&D agenda through innovation, pep+, or productivity.**

## The XI Team

XI is PepsiCo's only external-facing R&D team

We connect global capabilities to internal priorities

Our diverse, distributed team scouts, evaluates, and enables strategic partnerships



# XI Core Capabilities



**Our mission is to unlock innovation by connecting bold ideas from the outside with PepsiCo's global R&D capabilities**

## TECHNICAL SCOUTING & EVALUATION

We identify promising technologies and evaluate how they could fit within PepsiCo's R&D ecosystem

## OUTSIDE-IN STRATEGY

We spot trends, analyze landscapes, and shape strategy using insights from outside PepsiCo



## STRATEGIC PARTNERSHIPS

We build multi-year collaborations with startups, universities, and suppliers to co-create what's next

## ECOSYSTEM ENGAGEMENT

We activate innovation ecosystems globally—connecting you to the right team, geography, and opportunity inside PepsiCo

# Where Your Innovation Can Plug In

PepsiCo's R&D system covers every step from concept to consumer. We connect external ideas into these critical areas to accelerate impact.



INNOVATION  
MANAGEMENT



SUSTAINABILITY



CULINARY



EQUIPMENT  
DEVELOPMENT



CLINICAL SCIENCE



SENSORY



AGRICULTURE



FOOD SCIENCE



PROCESS  
ENGINEERING



NUTRITION  
SCIENCE



PACKAGING



FOOD SAFETY  
& QUALITY



REGULATORY

FLAVORS



WATER  
TECHNOLOGY



SPORTS SCIENCE



DATA SCIENCE





# XI Builds a Broad Network to Unlock Innovation



## How we Engage

Government	Start-ups	Suppliers	Innovation Networks	Industry players	Academia
Incentives, public-private partnerships (Consortia)	Venture partnerships with early-stage, high-risk tech	Long-term capability partnerships	Tech scouting platforms, Open Innovation Challenges	Co-development, JVs, scaling partnerships	Sponsored research, talent development, academic alliances

Wherever you come from, XI helps connect the right ideas to the right teams inside PepsiCo.

# Focus Areas for PepsiCo R&D



## Process & Equipment



Bioprocessing technologies

Low/no-fat dehydration technologies for foods

Rapid & novel food safety & quality testing

Individual monitoring sensors & equipment

Processing GHG & water reduction technologies

## Ingredients & Flavors



Natural sweeteners, colors & preservatives

Sodium reduction technologies

Botanical & functional ingredients

Advantaged proteins

Virtual-first development technologies

Data analytics on public + proprietary data sets

## Packaging & Materials



Barrier materials and coatings

Plastic alternatives

Packaging lightweighting

Packaging circularity

GHG reduction for pkg materials

## Sustainability & Agriculture



Regenerative agriculture

Digital agriculture

GHG & water reduction technologies

Soil health, field measurement

Trait discovery

# PepsiCo Open Innovation Portal



The **External Innovation (XI)** team within PepsiCo R&D provides seamless **external partnering** capability to accelerate PepsiCo's **innovation** agenda, **mitigates development risk**, and uncovers unique **new business opportunities**.



## SPOTLIGHT



About External Innovation >



Operating Model >

**External Innovation (XI)** is part of PepsiCo R&D comprised of 15-person **Global** team of Technology Scouts and Analysts that leverages the **Want/Find/Get/Manage** open innovation Framework



## WAYS OF WORKING



### Want

XI works with internal R&D stakeholders to define high priority technology needs.



### Find

Leveraging our vast external partner network, XI determines the best method to source solutions.



### Get

Work with R&D and external partners to deliver solutions.



### Manage

Coordinate to finish XI mission on behalf of the team.

## PARTNER ECOSYSTEM



### Academic

Universities, Research Organizations



### Commercial

Strategic Suppliers, Customers and Peer Companies



### Venture

Startups, Funds, Accelerators, etc.

## About XI

PepsiCo's External Innovation (XI) team, part of the company's Global Research & Development (R&D) organization, actively scouts for, identifies and develops strategic partnerships with external collaborators. The goal is to locate key external insights, business models, technical unlocks and new capabilities that, when partnered with our robust R&D expertise, will yield disruptive innovation in our core products and new and emerging products. We are currently exploring novel technologies that have the potential to dramatically impact our food and beverage portfolio. We are interested in improving all facets of our value chain - from raw material inputs all the way to the consumer experience - and identifying global efficiencies in areas including crop science, ingredients, processing, packaging, equipment, distribution/fleet, retail and eCommerce.

## MISSION

Provide a seamless external partnering capability to accelerate PepsiCo's innovation agenda, mitigate development risk and uncover unique new business opportunities



"PepsiCo R&D is committed to being at the forefront of innovation, which is why we created the Open Innovation Portal to be a central hub for R&D's external innovation efforts. By unlocking new capabilities and leveraging the value of external partnerships, the portal allows the R&D organization to become Faster, Stronger and Better and deliver breakthrough innovation for PepsiCo."

**Rene Lammerz**

Executive Vice President and Chief Medical Officer, PepsiCo



Submit your solutions to PepsiCo R&D's technology needs

<https://externalinnovation.pepsico.com/>

THANK YOU

