

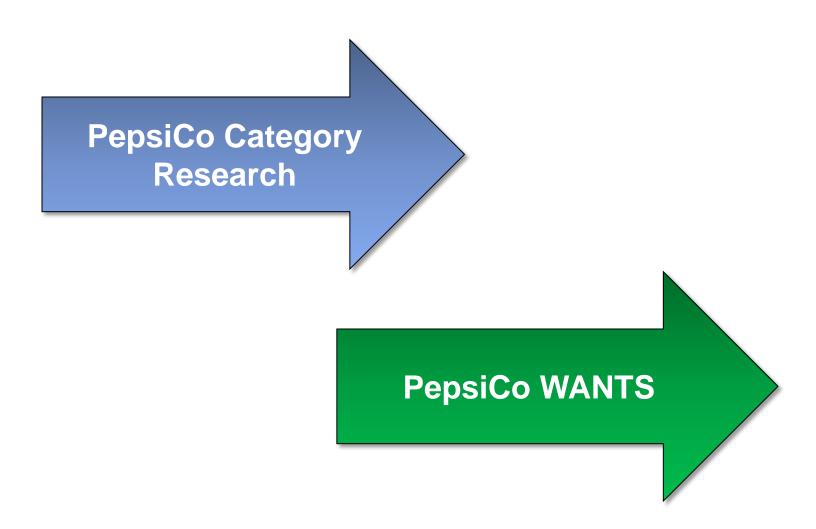
PepsiCo Research & Development

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Manager – External Innovation

Agenda





Who We Are?

PepsiCo is a global food and beverage powerhouse.

Our broad range of more than 3,000 delicious products offers consumers convenient, nutritious and affordable options in nearly every country around the world.



Global Beverages



Global Snacks



Global Nutrition

Performance



~\$63 billion revenue

Brands



Scale



>**200** countries & territories

People





We have a strong portfolio of iconic brands......

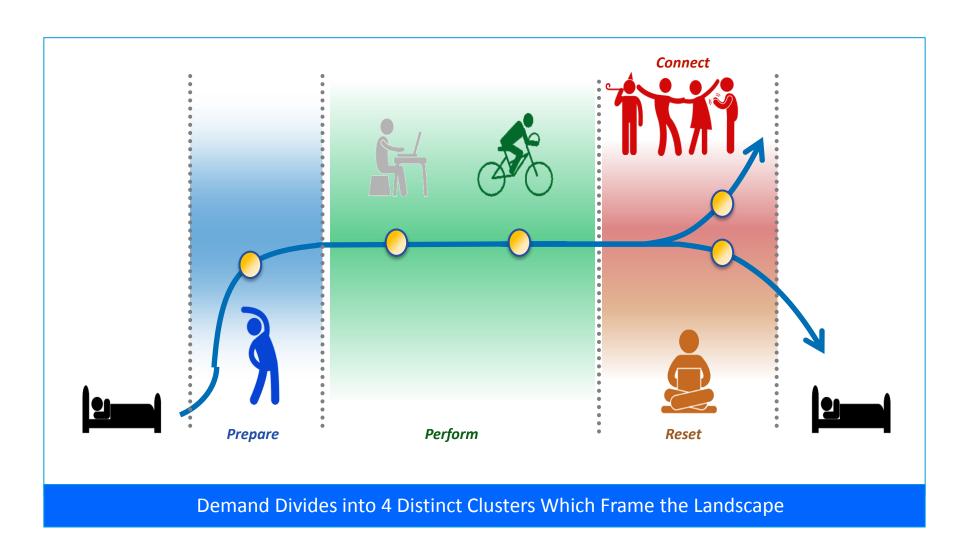


Our Brands have leading global positions in attractive categories





Linking Consumer Drivers leads to Demand Driven Growth

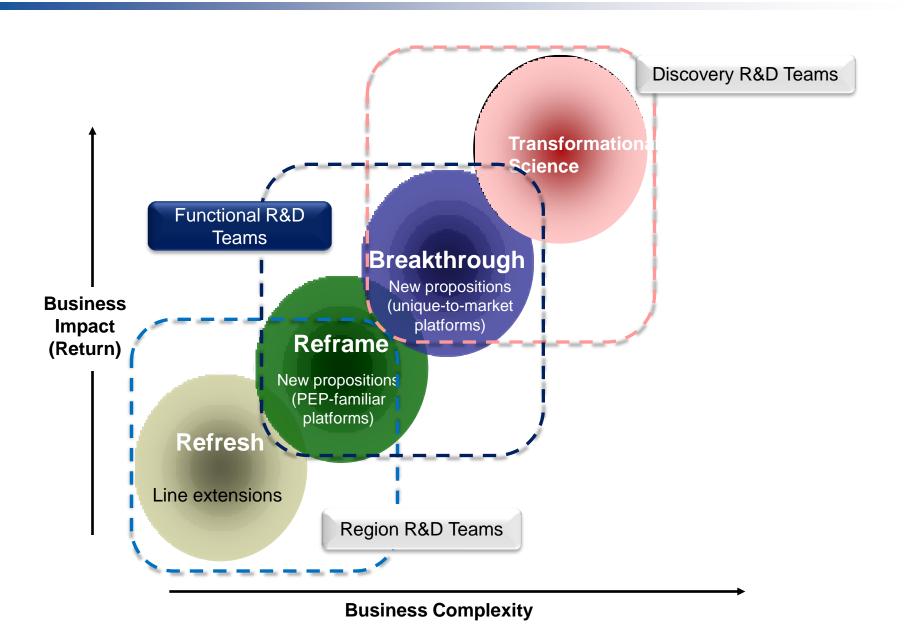


Global R&D

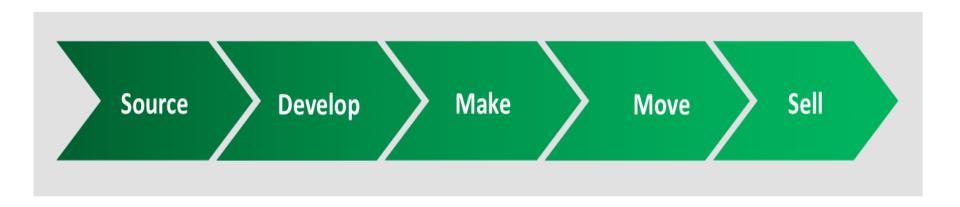




R&D Operating Model



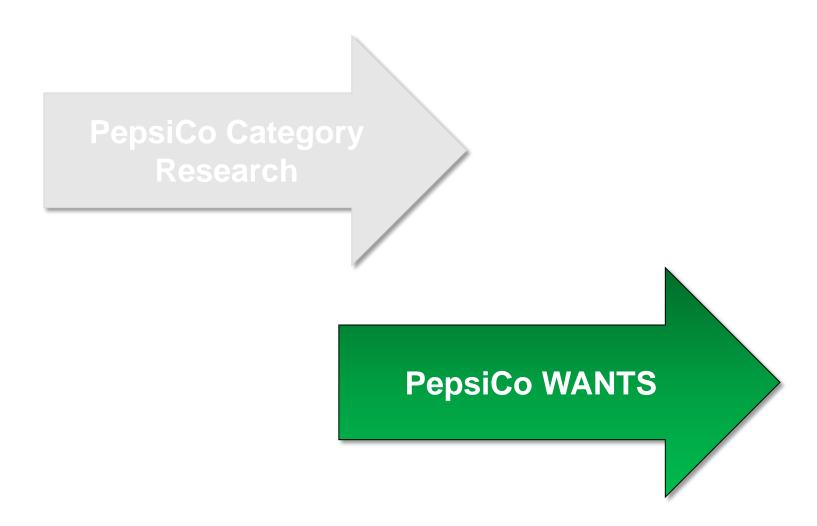
R&D impacts productivity across Supply Chain





Agenda





Focus on BIG Ideas





Group Ideas into Opportunity Spaces







Better Built:

- Built for Appearance
- Built for Texture
- Built for Taste & Flavor
- Built for Permissibility



Transform Distribution:

- Point of Sale
- At Home Applications
- Flexible Equipment
- Localization



Holistic Sourcing:

- Managing Inputs (Ingredients)
- •Repurpose and Reuse
- Robust Process



Digital Efficiencies:

- Mass Customization
- Information Value Chain
- Operational Execution

Some Food WANTS



- Differentiated packaging (new format, digital print, functionality, recyclability, etc.)
- Advantaged plant protein (sourcing, solubility, taste/texture, bioavailability, quality – PDCAAS, etc.)
- New natural preservatives, colors, and functional ingredients
- Bio-fermentation, Chemical, enzymatic modification, etc.
- New/unique dehydration technologies (other than baking, frying, etc.)
- New Food Industry Manufacturing Processes (e.g. Injection Molding of Food)
- Noninvasive potato defect and content characterization
- Non-Oil Frying (alternative food grade fluid that has a flash point ≥ 450 to 500°F)
- Edible adhesives and coatings that are activated with a low energy source or temperature

Some Beverage WANTS



- Next generation of plastic packaging what is the next PET, cheaper, more sustainable and with better barrier properties? Better Renewable plastics.
- Recyclable / Biodegradable Pods
- Economical packaging barrier
- Alternative sweeteners (new ingredients, improved stevia extracts, aftertaste mitigation, mouthfeel modification, etc.)
- Unlocking use of "source" water (improved RO, ZLD, inexpensive filtration)
- Uniform ingredient dispersion and repeatable, accurate micro scale ingredient handling
- Advantaged and novel sterilization technologies
- Economical vending solutions including cooler / chilling technology





Unarticulated Needs (WANTS)



"If I'd asked people what they wanted, they'd would have asked for a better horse." Henry Ford

"It's really hard to design products by focus groups. A lot of times, people don't know what they want until you show it to them." Steve Jobs



Internal PepsiCo Capabilities







Culinary



Sensory



Clinical Science



Packaging



Metabolomics



Engineering



Food Safety, Quality



Chemistry/Physics



Regulatory



Statistics



Agro



Biology



Nutrition



Flavors

Questions?

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