Developing a dense snack with sustainable packaging

SUMMARY
Xinova worked with PepsiCo to develop a new snacking product platform, creating a savory snack experience with an interactive “break and bite” component. The product should also be stackable for dense packing and thus reduce carbon footprint during distribution.

THE PROBLEM: PACKAGING DEFICIENCY
Randomly packed, gas-filled, flexible packages are widely used because it enables high-speed production. However, the irregular shapes of many snacks inhibit dense packaging and thus require more material usage. The pain points include:

→ Dead space
→ Settling of snacks over time
→ Damaged product
→ Inefficient transportation and storage

In addition to the improvement of packaging efficiency, our client is also seeking a new snack experience, which is to create a uniformly shaped savory snack that consumers can break into bite-sized portions and enjoy alone or share with others. The overall challenge is to identify a suitable product and production method for a savory snack that creates a break-and-bite experience while improving packaging efficiency.

SOLUTION: PEPSI TAPS INTO THE NETWORK
Xinova worked with PepsiCo to formulate the problem into the “Request for Invention”, and released it to our innovator network.

→ Snack Densification
→ Break & Bite

THE RESULTS: PATENTED SOLUTIONS
Xinova recommended solutions sourced from our innovator network. Concept development partners rapidly produced functional prototypes for consumer tests, managed by PepsiCo. Based on positive consumer feedback and collaboration with PepsiCo’s Discovery team, Xinova is leading next-stage development of these snack platforms to identify and mitigate technical and manufacturing risks towards commercialization.

Patent applications were filed as an early positive result from this partnership. The targeted annual revenue for this new snack product is estimated at USD $100 millions.

“The partnership we have with Xinova has focused on timeless key problems to deliver on trend solutions. We are focused on delivering technical unlocks to sharply prioritized and clearly defined R&D problems that have eluded solutions via usual ecosystems. The partnership has enabled us to tap into thinking from very different industries, to find novel approaches to these evergreen opportunities and then adapt them for our applications.”

– VR Basker
Nutrition Category VP, PepsiCo