Rinse & Reuse

SUMMARY

The process of cleaning vegetables and reusing the water is a tiresome task that not only wastes billions of gallons of water, and loads of effort and money. PepsiCo partnered with Xinova to identify more cost-effective methods for cleaning vegetable rinse water for multiple reuses. Solutions would lower microbial loads and meet regulatory concerns while reducing capital and operational costs.

PROBLEM

The current process is costly because of its reliance on multiple filtering and sanitation steps, and the costly disposal of the process’s resulting chemical sludge. Removal of one or more of these steps will decrease costs, allow more reuse of the rinse water and save billions of gallons of water. For instance, before becoming chips, potatoes need serious baths: first they’re washed, then their peels are scrubbed off with a high-pressure spray. The resulting rinse water may be reused for cost and sustainability purposes, but reusing water is expensive and resource-intensive in today’s 4-step process, where the potato pieces are filtered out and the rinse water is treated with anti-microbial agents and UV light.

SOLUTION

Xinova sourced over 30 solutions from its global network of innovators using a Request for Innovation. From this network, Xinova also scouted a handful of existing technologies that could potentially meet PepsiCo’s needs.

RESULTS

→ Xinova engaged PepsiCo in discussions with at least two startups with promising technology, both proposing highly effective methods for sanitizing water with relatively low costs.

→ The overall engagement showed the PepsiCo operations team that many existing technologies may meet their needs more quickly and cheaply than novel solutions, while still presenting patentable solutions for future perusal.