Altria is looking for new approaches and technologies that can help address certain business and technology challenges/opportunities. The following Innovation Opportunity Brief provides a high-level overview of specific business and technology interests, as well as a high-level overview of what Altria is looking for in a proposal.

Brief Submission Period: Ongoing

Brand or Department: Product Development

Opportunity for Innovation Partner(s): Sustainability in Products or Technology

Process Overview:

- You must submit your proposal through Altria's submit your idea portal Submit Your Idea Altria
- Our innovation partner reviews all responses and will notify you about whether your response is accepted for further consideration.
- If accepted for further consideration, you will be contacted by a Research Analyst to schedule a
 meeting to present additional detail on your company and your response submission. In some
 situations, we will ask you to provide a demonstration of your product or technology.
- If contacted for next steps, we will provide additional detail about Altria's interests as well as additional information on the review, selection, and award process.



Innovation Opportunity Brief

Call for Partner Submissions

Brief Name: Sustainability Initiative for Disposable Vape Devices

Purpose Statement:

Electronic and plastic waste are growing environmental concerns in the US and globally and will be important to address within the e-vapor market, particularly for disposable (single use) vapor products. Currently, most disposal vapor products end up in landfills, and those that are collected for disposal must be incinerated. While the scale of the environmental impact of disposable vapes in the United States is difficult to quantify precisely, their increasing popularity suggests that the impact is significant and growing. The environmental impact of disposable vapes also extends beyond just the number of devices in landfills. The extraction of resources, manufacturing processes, plastic packaging, and battery disposal all contribute to the overall environmental footprint of disposable vapes. Accordingly, a significant opportunity exists for environmentally sustainable, widely available, and cost-effective means of collecting, destroying and/or recycling disposable vapor products or their electronic components.

Business and Technology Challenge / Opportunity Definition:

How can Altria create a new industry standard to address this growing and hazardous issue using disruptive and innovative methods for reducing the environmental impact of disposable vape devices?

Relevant technology domains may include, but are not limited to:

- New materials or design principles that can be incorporated into the development and manufacturing of disposable vape devices to reduce their environmental impact.
- Novel methods for the disassembly of disposable vape devices that allows the user to separate hazardous components easily and safely for proper disposal, recycling and/or return.
- Innovative solutions that focus on cost effective methods for collecting disposable vape devices on a nationwide scale and which also offers minimal friction and hassle for the consumer and retailer.
- New technologies or methods for recycling and/or re-use of disposable vapor products (in whole and/or for key components)
- Strategies for raising awareness and providing consumer education that motivate more sustainable choices to reduce the environmental impact of disposable vapes. The strategies should be cost-effective and demonstrate consumer behavior change by an effective call to action.



Call for Partners:

As a first step, we are looking for you to share your non-confidential ideas and proposals. A mutual confidentiality agreement may be put in place after our team conducts an initial assessment and if there is an initial fit. Proposed technologies and proposed solutions should offer a technology or solution that can be produced at scale or have a path to scale.

If you have non-confidential ideas and supporting technologies that you believe can deliver disruptive services and solutions to this challenge, we want to hear from you or partner with you. Where there is a good fit, we will look to quickly integrate your proposal into new or existing study designs. All ideas and submissions will be fully reviewed by our external innovation partner and the ones that are of most interest will be evaluated by our team.

Partner/Solution Maturity:

We are open to a range of global partnerships or technology transfers for proposals in this space that can include traditional service agreements through joint development programs. Ideal partners will have their proposed core solutions implemented in existing marketed products. Early-stage innovation will be strongly considered with organizations that have a track record of commercializing technology. All others will be considered on a case-by-case basis.