



Braskem Case Study



Company location: São Paulo, Brazil

Website: <http://www.braskem.com.br/home-en>

Company Description

Braskem is the largest producer of thermoplastic resins in the Americas and world leader in the production of biopolymer. Our comprehensive portfolio includes polyethylene, polypropylene and polyvinylchloride resins, as well as basic chemicals such as ethylene, propylene, butadiene, benzene, toluene, chlorine, soda, and solvents.

As a part of the chemical industry, which has a significant share across value chains and is essential for economic development, Braskem is committed to the creation of sustainable chemistry and plastics solutions that improve the lives of people, in sectors such as housing, food, and mobility.

Company Challenge

Braskem believes that its products can contribute significantly to improving agribusiness performance. Five percent of our current revenue comes from applications for the sector, representing almost US\$ 1 billion in sales for the company. Examples of applications include: mulching, a plastic film which covers soil and reduces the need for agrochemicals and manual weeding; plastic silos, which significantly reduce storage costs, and produce waste resulting from lack of appropriate storage; and drip irrigation hoses, used to ensure appropriate watering and optimized use of fertilizers.

Our challenge is to scale up the use of these applications, which have the potential to drastically reduce the inputs used by the sector whilst significantly increasing productivity and product quality, increasing farmer incomes as well as availability and accessibility of high quality produce.

The obstacles related to the increased use of these applications in Brazil include lack of information about the benefits of each type of product for the myriad combination of factors which impact results, low risk appetite by small farmers, low skilled workers, and many others, compounded by the vast distances of a continental –sized country with very pulverized production.

Our hope is that solving this challenge through open innovation tools will help move the company towards the use of more results-oriented innovation and business development, at greater scale at a faster pace.



Sustainable Development Goals Addressed



PRME Student Case Questions

Context:

- Family-run farms produce 70% of all food consumed in Brazil.
- According to the most recent agricultural census of Brazil (IBGE, 2006), there are 4.3 million family-run farms in Brazil. They farm 32% of all cultivated land in the country, with 13 million ha in the South and 12.8 million ha in the Southeast region.

What we know about the sub-sector we are focusing on (family-run fruit and vegetable farms of up to 5 ha):

- They have very limited financial resources. One crop failure is enough to bankrupt them.
- They farm manually, often only having one old tractor.
- They use agrochemicals, often in excessive doses, sometimes leading to unsafe levels for human consumption.
- Many sell their produce themselves, in farmers markets in large cities. Some form small associations and sell to distributors.
- They don't keep track of the resources they use, for example, not knowing how many times they applied herbicides during a crop cycle.
- There are financing options available to them, but the paperwork is so complex it is hard for them to complete it and access these resources.
- Being in such constrained financial situations, they are reluctant to take risks and try new technologies.
- Insurance products are very limited and typically only cover crop failure due to unforeseen natural disasters.

Question:

- What are the most promising business models to help us get mulching and drip irrigation in large-scale use by family-run vegetable and fruit farms of up to 5 hectares in Brazil? (Please note that we have focused on these 2 technologies as we believe they are the ones with best cost-benefit for these farmers.)



Team Member Information



Ediane Gomes Monteggia
Social Impact Lead
Sustainable Development

Ediane has worked across a number of sectors and subject matters as a consultant for KPMG UK and as part of Braskem's Sustainable Development team, where she currently leads the corporate community investment program.



André Leonel Leal
Market Development Manager
Polyethylene Business Unit

André holds a degree in Mechanical Engineering (USP), Specialization in Business Administration (INSPER) and Sustainability (FIA). He has developed his career working with Kyoto Protocol, Social Responsibility and Market and Business Development.



Bárbara Iria Silva Mano
Polymer Sciences Researcher
Innovation and Technology

Bárbara holds a degree in Chemistry and a MSc Degree in Materials Science. Developed her career in polymers R&D, with experience on project management, partnerships with universities and intellectual property. Currently, works in Braskem R&D Center.

Submission Directions

Please submit either a 1 page response in .pdf form providing an answer to the question presented or a presentation deck of no more than 10 slides to BICChallenge@unglobalcompact.org with the subject line [BIC] YourTeamName Braskem Response.