

# THOMAS COLLEGE INNOVATION CHALLENGE 2019

*The identification of viable solutions and creative ideas to help solve the  
World's Plastic Pollution Problem*



Issued: March 14, 2019

Due: April 19, 2019

# Thomas College Innovation Challenge

## Challenge Statement:

*World Creativity and Innovation Week* is being celebrated the week of April 15th to April 21<sup>st</sup>. As part of this week, innovators from around the World reflect on how to solve pressing global problems. Although the World is struggling with many challenges, one of the largest challenges it currently faces is trying to come up with a solution to the global plastic pollution epidemic. Although certainly not an overnight problem, the plastic pollution problem seems to have come in full public view over the past year.

To put a sharper focus on this problem, consider the following:

- The Great Pacific Garbage Patch, consisting of assorted plastics and floating in the Pacific Ocean, is now “Twice” the size of the State of Texas. There are at least two other masses of considerable size floating in other oceans
- Every year, 8 million metric tons of plastic finds its way into the oceans
- The US only recycles 9 percent of its plastic each year

Now clearly plastic has made our lives so much easier to live. In fact, it has revolutionized entire industries such as the automotive and home goods industry. It has made the cost of goods ranging from TVs to cell phones to computers affordable to people throughout the World for the first time. It has even saved human lives through advancements that have been made in the medical device industry. The creation of plastic has definitely had positive impacts.

However, we are now being challenged at a much higher level with how we manage the use and disposal of plastics. How we approach this will have significant and long-term impacts for generations to come, both whether we get it right or not.

Your team’s challenge is to come up with a solution to the problem. Now similar to most problems of its kind and significance, there are probably hundreds of smaller individual problems that in the collective have created the magnitude of the problem that currently exists.

As a result, your team is tasked with picking one plastic product or a grouping of plastic products (ie. water bottles, plastic bags, toiletries, etc.) that is/are part of the “short duration of use and disposal” problem and offering how it can be managed in a way whereby it can be taken out of the end waste stream so that it doesn’t find itself into one of the Earth’s oceans. Your team can also propose a solution that extracts these products out of the Earth’s oceans and waterways and reclaims them once they’re there.

Your innovative solution can be anything including a technological advancement that you propose, an alternative product or material, a creative recycling program, an economic program, a manufacturing method or any other action that would help solve the problem for that product, or grouping of products, not making it into a landfill at the end of its product life or a solution that extracts these products out of the oceans and waterways after they've made it into them.

The solution that you propose can be on a smaller scale, such as something focused to solve the problem at a college campus, at an office building or in a single waterway, or on a larger scale such as on a community, state or global scale.

Your team's solution must provide a **comprehensive** solution; a full cycle "beginning, middle and end" solution that describes each major stage of what is being proposed. As such, it must also address how it proposes to solve the problem and how it is sustainable whether it be a for-profit, non-profit or a social entrepreneurial venture.

#### **Challenge Parameters:**

- Identify the plastic product or groupings of plastic products that your team will be focusing on. Your team must describe why these products currently pose a problem and how they are part of the larger plastic pollution situation. Providing valid data that can be verified back to a reliable source is highly recommended.
- Propose a solution to the problem that your team identified. Your team must describe in detail each important stage or phase of the solution for what is being proposed and how it works. There must be a "beginning, middle and end" to what your team is proposing. As such, there cannot be any "leaps of faith" either in the technology or stages of the proposed solution.
- Any proposed solution must explain how the plastic product or groupings identified will be dealt with and how the solution proposed ultimately eliminates the product(s) from getting into landfills or the waterways or extracts them once they've already made it into them.

#### **Prize:**

- The team that has the highest score will win a \$200 cash prize.
- EACH member of the team **must appear in person** to receive their equal portion of the prize money.

#### **Team Configuration:**

- Each eligible team must consist of at *least* two (2) individuals but no more than four (4).

- All team members must be enrolled at Thomas College, either in the undergraduate or graduate program and considered full-time students in their respective category.

### **Scoring Parameters:**

1. Your team must submit its proposed solution on the 48' x 36' Tri-Fold Display Board that has been officially provided to your team by the Harold Alfond Institute for Business Innovation as part of the Innovation Challenge 'packet'.
2. The entire proposed solution must fit on the 'white' side of the display board only. No other additional documentation will be accepted that is not attached to the white side of the Display Board.
3. Your Tri-Fold Display Board must be completed, without exception, and delivered to staff in the Harold Alfond Institute for Business Innovation in Room AD-125 of the Ayotte Center **by 4:00 PM on April 19, 2019**.
4. Your Display Board must have all of your team members names displayed on it with contact information (email).
5. Your team does not need to use any, nor all, of the materials that have been provided in the packet. The only item that **MUST** be used is the Tri-Fold Display Board.
6. Your Display Board can include other materials not provided in the Challenge Packet such as pictures, infographics, etc. that have been obtained from other sources such as the Internet, magazines, etc.
7. Your team's submitted Tri-Fold Display Board must address all the elements described in the 'Challenge Parameters' herein this document in whatever manner that your team believes solves the problem. The more probable and innovative the solution provided is in addressing the problem, the higher the score.
8. Your team should provide narrative, drawings and or illustrations to describe your proposed solution, either directly on the white side of the Display Board or attached to it.
9. Any and all proposed solutions in their entirety, as well as in their stages/steps, must be self-explanatory. Judges have complete and total discretion to reduce scoring by whatever proportion they believe an individual stage/steps plays in the importance of the overall solution should there be something lacking in its explanation.

### **Scoring Matrix:**

#### **100 points: Aesthetics**

Your team's proposal will be graded on what the presentation looks like and how it is configured on the Display Board. Does the proposed solution have a sequence and flow to it? Does it appear to be in a logical order? Is writing or lettering 'production' quality? Do elements presented look like the actual physical elements they are supposed to represent? What does the overall Display Board look like?

**100 points: Potential Performance**

Based on the solution provided and how it has been explained, along with any diagrams, drawings, illustrations, that may have been provided, what would be the expected performance of the solution in the given conditions where it must perform? Would it be likely for the proposed solution to function as it's being proposed? Does what is being proposed rely on other things, programs, entities having to occur for success? Does the proposed solution function as a complete whole whereby it is a fully integrated solution?

**300 points: Probability of Problem Solution**

Does the solution meet (fit/address/accommodate) all of the Challenge Parameters? Does the solution as proposed reasonably solve the problem(s) identified in the Challenge Statement? Does the solution offer ease of implementation or construction, affordability and design that would actually solve the problem being identified? Is the solution being proposed adequate to solve the problem? Is the proposed solution physically practical with existing technology, as well as within the known laws of physics? Is what is proposed reasonably apt to function and perform in the intended environment?

**To participate in the Innovation Challenge, create  
your team and pick up an  
official Innovation Challenge 'Packet'  
and Display Board in  
Room AD 125 in the Ayotte Center**

**For further information, feel free to contact Mike Duguay of the  
Harold Alfond Institute of Business Development at Thomas College at  
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