

CASE 2 DETAILS: CELLINK

“The CELLINK Green Initiative Challenge”- Create and develop new ways to reduce waste products generated from the biotechnology industry.

The CELLINK Green Initiative is a general initiative with the goal of reducing the use of plastics and other waste generated within the biotechnology sector. This is a way that we, as a company, can contribute to sustainability in the field of biotechnology by reducing waste generated by the industry.

As an example, a benefit to the Green Initiative is a reduction in plastic waste from pipette tips, money is saved through the reduction of a consumable item, time is saved through more efficient processes, and the environment is positively affected. One of our products, the C.WASH, was exclusively designed for this purpose by eliminating the need for pipette tips during plate washing processes. A second product, the I-DOT, performs contactless droplet dispensing, eliminating the need for hand pipetting. This system, in effect, reduces wasteful pipette tip disposal by eliminating their need. There are many areas for improvement in the field of biotechnology where waste could be effectively reduced.



Examples of problems:

- Plastic syringes are widely used and are one of the largest sources of plastic waste in the industry.
 - How else can you dispense biomedical fluids without a syringe and without cross-contamination?
 - What processes can be automated that could eliminate the need for syringes altogether?
- Production of certain biomaterials can generate chemical waste.
 - Can we reuse this waste downstream in other processes?
 - Can we eliminate this waste altogether or find another use for it instead of disposing it?

Solution Requirements:

- The solution should provide **significant** positive environmental **and** business impact.

Response Requirements:

1. Clearly identify a problem related to waste generated in the biotechnology industry.
2. Design a solution or product to solve the identified problem.
3. Prove that the solution is **significantly** beneficial to both the environment **and** has a positive business impact.



About:

Cellink is the first bioink company revolutionizing bioprinting. Bioinks are materials used to produce engineered/artificial live tissue using 3D printing. In 2016, Cellink commercialized the world's first universal bioink--an innovation 8 years in the making. They now have 3 successful acquisitions and several high-profile product launches making them much more than a bioprinting company. In just 4.5 years, Cellink has achieved \$1 billion in market valuation and thus has achieved unicorn status. By combining advances in biology, engineering, big data, and AI, they are now the top bio-convergence company in the world, creating the future of medicine.

Website:

<https://www.cellink.com/>

Social Media:

(Click each logo to view)

