

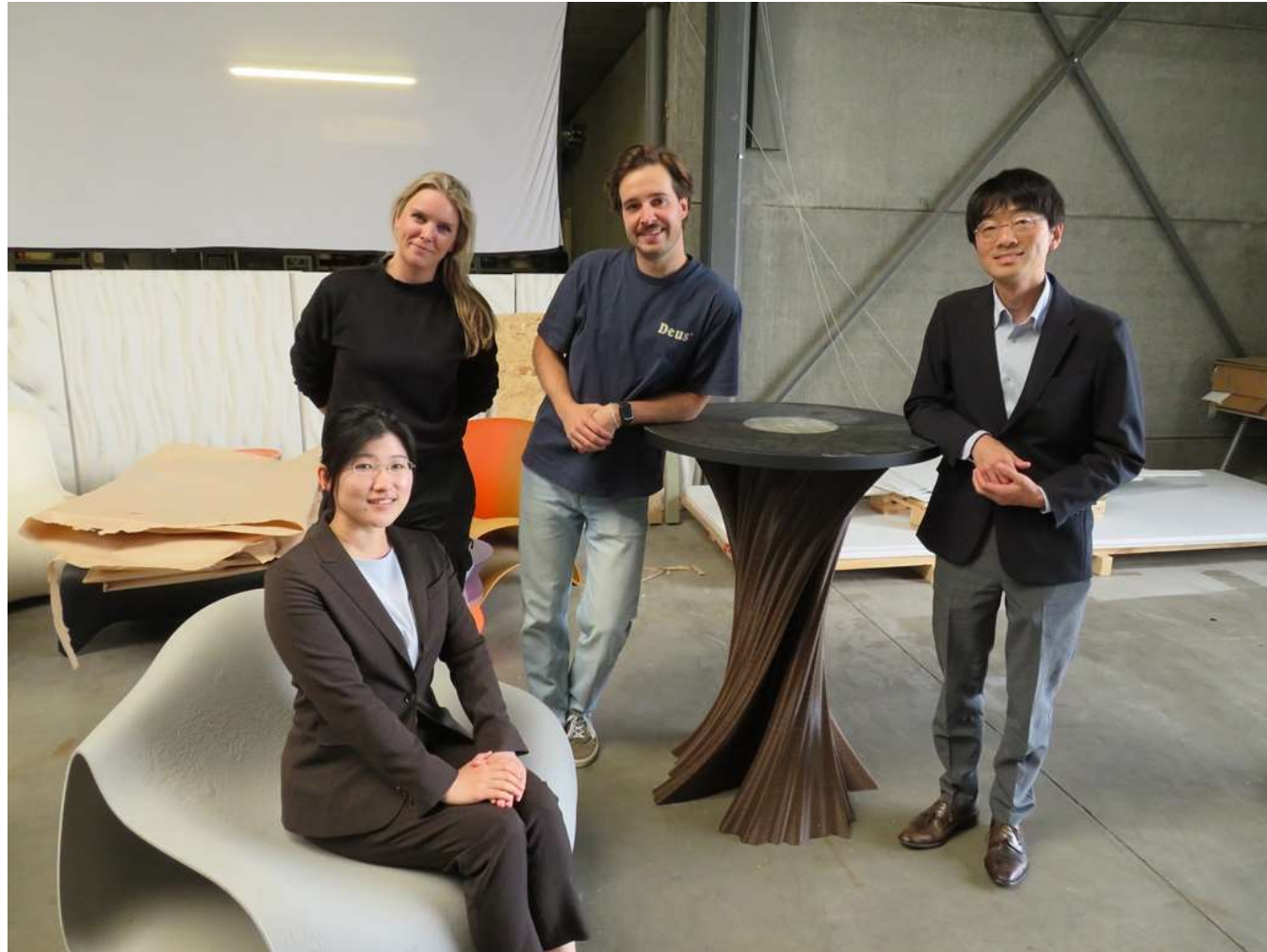
# Survey Report 8

## The One Project (Plastic Recycling Consultant)

## The One Project

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Mr. Takuma Kitadani**

**Visiting location: Oudsbergen, Belgium (Office and factory)**



## Company Profile

- **The business specializes in recycling solutions and ready-to-use upcycling.**
- **Work with groups of experts from different sectors to recycle plastic materials into new, high-value solutions. Innovate recycling methods and opportunities to make recycling economically viable and at the same time protect product quality.**
- **Projects are also implemented in collaboration with global companies.**

# Business History

In 2017, the world's first 100% recycled PET was used at a festival in Belgium

2018, the world's first large-scale 3D printer dedicated to plastic materials.

Developed the first 100% locally recycled APET FILAMENT

世界初の100%リサイクルrPETがベルギーのフェスティバルで使用

1<sup>st</sup> 100% closed loop sorting live on site for plastic packaging (rPET) at PUKKELPOP

のリサイクル素材を使用したFG型プリンターColossusを開発

Partnership with Huthamaki on end-of-life plastics



## Business activities (Consulting and printer business)

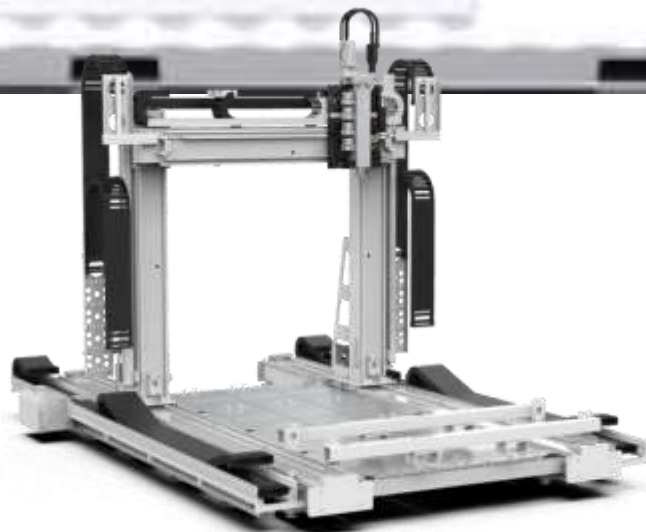
- **Two large 3D printers have been installed in the US, one in Russia, two in the Middle East and several in Europe.**
- **It is priced at approximately JPY 50 million and is sold to customers, including training in the use of the machines and consultancy on their operation.**
- **Test prints are made before equipment is delivered. The key point is what waste is recycled.**
- **Printers can be transported by ship.**

# Business activities (Consulting and printer business)

## 3D Printer



**Second-generation installations with build volume 2700 x 1250 x 1500 mm**



## Business activities (Consulting and printer business)

- **Large-scale 3D printers enable the production of works of art, furniture, etc.**
- **The software is being developed to do the necessary design for manufacturing with a 3D printer.**
- **The company has experience in manufacturing building materials (e.g. wall materials) from waste products such as Nike. Plastic recycling was also promoted at the Nike booth in the 2024 Paris Olympics.**



## Business activities (Consulting and printer business)

### Recycled plastic materials (recycled materials that can be printed)

- (r)PETg natural or including carbon fiber and fiberglass-reinforced products (all colors including transparent and translucent, carbon only in black)
- (r)PETg specials (Foam, stone, terracotta, etc.)
- (r)PP natural or including fiberglass-reinforced products
- (r)PP
- PPL-hollow glass bubbles
- (r)PP specials (Foaming agent, PP/PE cellulose)
- (r)PLA natural or specials (foaming agent, hemp mix, stone mix), etc.





## **Business activities (Portable equipment business)**

- **A mobile portable recycling plant has been developed. The facility has a modular design that can process different types of plastics.**
- **The necessary modules for washing, crushing, etc. are selected for the collected waste and the equipment is installed.**
- **This equipment can be installed at any location and enables waste treatment in areas where small-scale eco-systems are needed. The facility allows for the transport of cleaned flakes instead of waste plastics.**
- **The value of recycled materials continues to increase year after year and this project will help to increase the value of materials within the ecosystem.**

# Business activities (Portable equipment business)

Facility image



## Business activities (Data Traceability Business)

- **In cooperation with packaging manufacturers, information on the weight of cups delivered, the number of cups collected and the weight returned to the manufacturer is registered in an application and the information is used to improve collection and recycling rates.**
- **The sponsor of the event had a need to visualize the recycling rate of waste generated from the event, and it was decided to develop a system.**



## **Business activities (Data Traceability Business)**

- **At the annual event, it is possible to track changes in the recycling rate over time, which is used to improve collection methods.**
- **It collects and analyzes energy and waste data throughout its entire life cycle from the collection of materials to the manufacture of products and vice versa. Clients can track their progress on targets, track CO<sub>2</sub> emissions, enhance material traceability, improve efficiency, and demonstrate their commitment to zero waste.**

## Challenges of Plastic Recycling at Events

- **In the Netherlands, the use of disposable containers is increasingly regulated and a lot of application paperwork is required if PE disposable cups are used at an event**
- **On the other hand, repeated use of hard PP cups uses large amounts of water to clean them. In addition, the cups are marked with the sponsor's logo, but the logo print falls off after repeated use.**
- **The One Project believes that it is better to recycle PE in Europe instead of throwing it away.**