
Application laboratory for 3D printing of recycled plastic

The project studies the usability of recycled plastic as a 3D printing material and the related business opportunities, starting from enterprises' needs.

The introduction of 3D printers is expected to have an equally great impact in the change of the world as urbanization and the internet having become more common had in their time. The use of recycled materials in 3D printing is a part of the developing circular economy thematic and its utilization contains the opportunity to bring both new business activity to Finland and to strengthen the international competitiveness of existing companies.

The application laboratory for 3D printing of recycled plastic is a joint project of Turku University of Applied Sciences, Arcada University of Applied Sciences and the Finnish Environment Institute (Syke), implemented in close cooperation with enterprises.

New business and developing technologies

The project includes manufacturing and studying 3D printer filament prototypes made of recycled plastic in cooperation with the participating companies. In addition, regenerating recycled 3D printer plastics in powder form and utilizing powdered recycled plastic is studied. At the same time, new methods, technologies, products and business models are developed for the utilization of industrial plastic waste material.

The project yields benefit for SMEs with:

- recycled plastic material to offer for refinery
- ideas about utilizing recycled plastic e.g. through 3D printing (existing/new products)
- interest and need to utilize recycled plastic (powder/filament) in end entity applications (existing/new products).

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Project duration

1.1.2016 - 31.5.2017

Operating sphere

National

Partners

Arcada University of Applied Sciences
Finnish Environment Institute SYKE

Source of funding

Tekes

Total funding

240 000 €

Project website

[http://
resurssitehokkuus.turkuamk.fi/
kierratys-3d/](http://resurssitehokkuus.turkuamk.fi/kierratys-3d/)

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