

Case Study

**Not just
nylon...**

**fibre-to-fibre
recycling
in polyester
is possible too!**





In 2023, RadiciGroup carried out a research and development project on **fibre-to-fibre recycling** in the polyester sector in collaboration with Sportstex, a company specialising in sportswear, and **Pure Loop**, an expert in recycling machinery, who helped to identify the optimal technology for obtaining new textile fibres.

The three teams, coordinated by Radici InNova, obtained an initial result using a **mixed recovery technique**, in other words by “dosing” variable percentages of polyester granules from the recovery of bottles to granules from recovered fabrics, gradually fine-tuning the processes to obtain a **yarn made entirely from recovered textile waste**.

Once industrialised, this system will mean that recycled polyester garments can be produced and

then **recovered again at the end of their life cycle**.

One company, **Shimano**, immediately embraced this initiative, putting its own brand on the first t-shirts to result from the collaboration, presented during the Itma fair in Milan.

The research project has highlighted a new form of recycling for a **textile-on-textile Closed Loop with no effect on the quality and technical performance** of the products.