



# Effect of E-beam irradiation on mechanical properties of PLA fibers

Radiation trials conducted by NTT during the experimental campaign of the project showed excellent results.

- Different PLA filaments were produced adding crosslinking agents and exposed to electron beam irradiation.
- Electron beam processing effectively and efficiently creates useful changes (thanks to polymer crosslinking) in material properties and mechanical performance.
- Radiation treatment to increase the stiffness of PLA filaments was successful: the modulus could be elevated from ca 8-9 GPa to ca. 13-14 GPa.

