



**NOVEL PACKAGING
SOLUTIONS**



FOLD: ORIGAMI FOLDING FOR PACKAGING PROTECTION



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Protective packaging based on folded cellulose structures offers a lightweight and sustainable alternative to conventional packaging.

A single origami pattern can turn flat paperboard into a strong, lightweight three-dimensional structure — no plastic, no additives, no adhesives. FOLD works with the Miura pattern, devised by Japanese aerospace engineer Koryo Miura and long used to fold solar arrays for spacecraft, because it is simple, scalable and delivers stiffness and ventilation from creases alone. Researchers at Aalto University and VTT, together with eight industrial partners, have taken it to continuous roll-to-roll production, making folded protective packaging fast and affordable at industrial volumes. The technology began within FinnCERES and continues as the Business Finland-funded FOLD2 consortium.

