VTT Presentation Title: **Novel PGA Barrier Polymer**

We present a novel polyglycolic acid (PGA) barrier polymer offering exceptional oxygen and CO_2 barrier performance for packaging applications. This gives a recyclable and biodegradable alternative to current barrier polymer structures using EVOH and Polyamide. Produced via a patented pre-polymer polycondensation and chain-extension process, the PGA material enables cost-efficient manufacturing while delivering a transparent yet crystalline polyester structure. The polymer is prone to hydrolysis and biodegradable and compatible with standard polyester recycling, where caustic washing removes the PGA layer. It supports co-injection molding and co-extrusion, with future potential for bio-based monomer sourcing. Key applications include bottles, jars, and multilayer films, with additional opportunities in medical sutures and industrial uses. IPR provides possibility to freedom for operation through licensing.