inpart Industry Call for Opportunities

Seeking Continuous Stiffening Methods for Braided and Knitted Polymer Tubes



A global company is seeking **continuous treatment methods** that **stiffen braided thermoplastic tubes without melting the bulk structure**. Solutions should apply **localized treatment** applicable in a continuous roll-to-roll treatment fashion, e.g. in the form of bands, lines or other geometries around the tube perimeter, rather than uniform treatment around the full circumference in order to **preserve the porosity of the structure** to the largest possible extent.

Approaches of Interest:

- Processes that result in a **controllable** and **significant stiffening of the porous tube** exhibiting higher bend-force of the tube, **at least by 50%** but preferably 200% or more
- Processes that create **local bonding between the yarns** of the tube while **keeping the surface and internal structure intact** at other areas thus **preserving the porosity of the structure to the largest possible extent (>50%)**
- **Braided structure** is the most relevant form of the tube currently, but alternatives such as knitted or other structures are welcome as well if cost effective
- Technologies applicable to **polyethylene-terephthalate (PET)** tube is the highest priority, other alternative materials can apply only if cost is not higher than PET
- Technologies such as **contact** or **non-contact heating**, **application of chemical binders**, **thin coating or other surface treatment**, should be suitable for tubes of approximately 2 mm outer diameter and 0.2-0.5 mm wall thickness
- The envisaged technology and equipment should be capable of running continuously envisaged as a roll-to-roll treatment fashion of the tube

Out of Scope:

- Non-localized, bulk technologies decreasing the porosity of the structure by more than 50%
- Use of fluorinated compounds

Developmental Stages of Interest:

- Solutions from TRL 3 onwards are of interest. Solutions should have at least a **working prototype**, or a fully worked out design ready for implementation

Submission Information

Submission of one-page, 200–300-word briefs is encouraged, along with any optional supplementary information e.g. relevant publications. This campaign is open to submissions from SMEs and startups. In submitting to this campaign, you confirm that your submission contains only non-confidential information.

Opportunity for Collaboration

Our client is open to a range of collaboration opportunities, with the most appropriate outcome being decided on a case-by-case basis. Example outcomes include exclusive licensing or direct purchase of equipment.

Opportunities sought

- Technologies
- Academics and expertise
- Centres of excellence
- Research projects
- Company profiles

Submissions

Please submit relevant, non-confidential opportunities online here

Deadline: **20th January 2027 - 11:59 pm GMT**

Have any questions?
Contact our team at campaigns@inpart.io

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