The client

We are working with an **established manufacturer of electronic and consumer devices** seeking to improve the performance of their products and provide an enhanced experience for their users. Some products are required to allow the flow of gases and liquids internally and there is currently an issue controlling this movement. Specifically, the **device needs to allow the flow of gases in one direction and prevent the movement of liquids in the opposite direction**. Solutions already exist in the apparel and other industries for this purpose, but typically employ fluorinated textiles to achieve the breathable and hydrophobic functionality, or require significant gas/air pressure to operate. The client is not able to use such fluorinated materials in its devices and air flow can't be impacted, therefore the client is actively searching for alternative and next generation solutions.

The search

The client is interested to identify potential solutions that could selectively control the passage of gases and liquids. **Solutions could include materials, coatings and/or one-way valve or venting technologies** and be sourced from the following: -

Industries / Applications

- Textiles - Materials for waterproof/breathable apparel – selective control of liquids/gases/vapours
- H&S - Respiratory / safety masks
- Medical - Ventilator components
- Breathalyser components
- Packaging - Humidity control
- Automotive / Construction - Pressure equalisation venting solutions
- Industrial - Filtration
- Life sciences - Gas permeable coverings for cell culture containers
- Medical - Breathable wound protection / dressings
- Personal care/hygiene – Microporous fabric/laminate

Solutions should satisfy (or have expectation to) the following requirements in the next 18 months: -

- **Prevent the passage of water-like liquid through the resulting component**
- **Allow the passage of air / gases and not impact pressure drop (ΔP ≤ 9mmWg)**
- **Be free of fluorinated or halogenated compounds**
- **Fit within a small device (less than 10mm in diameter)**
- **Allow the mass production and further assembly into small devices**

Solutions suitable for use in medical, pharma and/or consumer devices with applicable REACH / RoHS / FDA / GRAS approvals are preferred (e.g. materials such as silicone and PEEK)

What the client can offer

The client is a well-established, large manufacturing business with excellent market access. They are searching for technology partners and suppliers to meet their current and future product demands, and so this represents an excellent business opportunity for a new and ongoing commercial relationship. The client is also open to working with potential suppliers / technology owners to develop a solution using their combined in-house R&D capabilities. Please provide details of any potential technology or partner to Diane Kolonko via diane@strategicallies.co.uk