PLUME S.r.l. develops produces and sells **high-tech products and services based on plasma technologies.**

Our main goal is to offer **plasma based surface modification processes** including:

- **Functionalization of flexible materials** like, for example, fabrics, plastic films, polymeric membranes and 3D objects. This technology can include both plasma treatment and **nano-sized coating** deposition;

- **Nanostructured thin film deposition** made of metals or metal oxides for application in sensor and photovoltaic fields;

- **PLUME** can rely on a wide range of equipment at the Milano-Bicocca University, suitable for the **development and validation of plasma processes** from the lab up to industrial scale. A wide experience of the team in the field of **R&D**, operated with and for productive world, completes PLUME profile.

**PRODUCTS & SERVICES**

**Filtration:** PLUME offers an **innovative, cold plasma based process for the surface treatment** of flexible filtration media. A typical application is the separation of oils and water.

**Films and textiles:** Easy to integrate in the productive line, **atmospheric plasma treatment of flexible substrates** can be applied in multiple industrial sectors, such as packaging, medical, textile, electronic.

**Textile industry:** Atmospheric plasma for the functionalization of fabrics, yarns and fibers, both natural and synthetic.

**Advice:** Design of **on-demand solutions for industrial customers**. Development of **cold plasma processes and technologies**. Realization of **prototypes**. Materials and surface analysis facilities (electron and atomic force microscopy, chemical composition, surface tension, adhesion).

**R&D:** We operate in a **dynamic context in relationship** with Italian and foreign Universities. We ideate innovative technological solutions and we realize prototyped systems based on **cold plasma**.