

Case study – Dose delivery of a soft and fine mist

Project

Airless mist topical administration on a **sensitive area**
Automatic delivery of small **calibrated doses**
Reusable device with a multiple use disposable cassette
Portable device for **homecare treatment** for chronic disease

Challenges

- **Fine and soft** mist with low impact pressure
- Mist quality maintained during the entire administration time (no transient regime)
- Administration of **30µL maximum in <100ms**
- **No contamination** inside the cassette
- **Miniaturization** for portable device
- Homecare : **easy to use** by a naïve patient



Achievements

 Dose accuracy 16 ± 1µL	 Short delivery < 50ms	 Fine & repeatable mist Mean droplet size 20µm ± 1µL
 Miniaturization Compact and portable	 Customization & Innovation 2 patents on spray nozzle & pump technology	 User friendly First prototype approved by intended users

Benefits

- Proof-Of-Concept of a **innovative & disruptive device** to improve patient compliance
- **Patient centric design**
- New tool to measure very low impact pressure