

Fluigent provides laboratories with effective and reliable precision analyses techniques at the micron and the nanometre length-scale

To gain a larger share of such very dynamic market and increase competitiveness, Fluigent, a pioneer of microfluidics, features the algorithms developed by the M.I.N.E.S Carnot Institute in terms of innovation.

Supporting Innovation

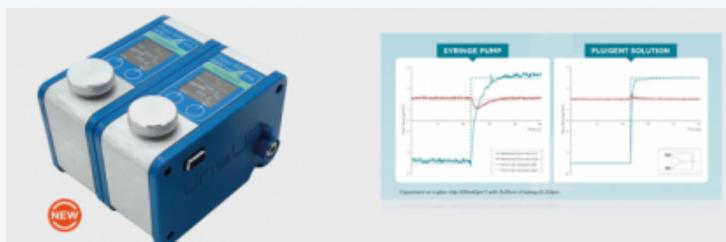
Microfluidics ensures that vast numbers of samples can be processed very quickly to the benefit of the many laboratories involved in various fields such as biology, medicine, pharmacology...

Due to the techniques used, the automated manipulation and the quantities applied are helping to lower the cost of the undertaken laboratory analysis.

On the one hand, Fluigent stands out by its own disruptive technology which incorporates powerful algorithms. On the other hand, by its dedication to integrating solutions ensuring a steady microfluidic flow and a sophisticated management of complex fluidic systems.

FRCM* products and EZ™ Flow developed in partnership with the [M.I.N.E.S Carnot Institute](#) are much appreciated by their users and forecast the efficient, reliable, economical with-a-strong-adaptation-capacity laboratory of the future.

*Flow rate control module



The client needs

As of 2006, Fluigent has verified that the analysis of micro samples of fluids circulating in channels etched on a glass or plastic plate opens up a new era of instrumentation.

Yet, this technology dictates a complete mastery of the fluid circulation through the channels. Fluigent is then primarily driven by reliability and miniaturisation considerations. Its teams think out flow control systems that may be put together to build upon request tools able to be rapidly operational readiness without requiring a long calibration step.

The French-based SME has been partnering from 2012 onwards with the Centre for Systems and Control (CAS-MINES ParisTech) of the Carnot M.I.N.E.S institute.

This partnership materialises very quickly with the launch of the FRCM software (2013), then the Flow EZTM (2017) modules, which significantly contribute to the steady revenue growth providing a strong competitive edge over the competitors.

Partnership

The [M.I.N.E.S Carnot Institute](#)** aims to eliminate scientific barriers to allow for innovative technology development with a strong socio-economic impact.

The teams have taken advantage of their 15 years of work in control theory and succeeded in improving performance significantly. The contribution involves optimising the control of miniature valves thanks to embedded algorithms continuously monitoring flows in real time.

The partnership has staunchly upheld the solid principles of independence while safeguarding Fluigent industrial property rights, as well as its closeness to end-users' applications.

Being involved in the design of the Flow EZTM module architecture since the beginning, the team led by Nicolas PETIT has contributed to the strengthened leadership of the French firm of 30. Fluigent pursues its strong growth and global expansion in more than 40 countries.

**Innovative Methods for Business and Society