

January 2004



Breaking news



Cannes, France, 23rd-26th February 2004

World Premiere at 3GSM World Congress 2004 :

Varioptic to unveil the first liquid lenses for camera modules. This technological breakthrough enables the next generation mass market mobile devices to integrate miniature autofocus lenses.

Varioptic

Sofinnova

We invite you to see our demo on board Mai-Mai 2, Sofinnova's boat. If you are interested to discover this unique technology, please contact us at info@varioptic.com

Edito of Etienne Paillard

First of all, I want to wish you a wonderful new year, and I take the opportunity of this first issue of the Varioptic e-newsletter, to do so !

Our first event this year, is our participation to 3GSM World Congress, the most famous exhibitions in the mobile world, and **we invite you to visit us in Cannes on Mai-Mai2 boat and to attend a cocktail party on the Chantella, Esmertec's Boat, from 18:30 onwards on 23 February.**

With this newsletter, our goal is to create a monthly appointment with you, to keep you informed and give you the latest news about technological advances, market evolution and perspectives, product innovations...

Since Varioptic was created in 2002 by Bruno Berge, the company has highly contributed to improve electrowetting, the technology we have pioneered in. In 2003, Varioptic which was granted a 2 million euros loan by Sofinnova Partners to develop its first products generation and to prepare the next one, had launched the first adaptable lens based on the principle of electro-wetting. It will be shown on the Sofinnova's Boat, Mai-Mai 2, at the next 3GSM World Congress which will take place in Cannes (France) from 23 to 26 of February.

Be sure that 2004 will be a great year and that we will have a lot to tell you ! Looking forward to seeing you soon at Cannes,
Etienne Paillard



Esmertec

Varioptic

Sofinnova
3GSM

A new Focus for Optic

Since the 1940s, optical engineers have attempted to design a lens that could focus without moving parts. Avoiding the need to precisely shift delicate glass elements would provide substantial improvements in durability, simplicity, speed, and cost, and would make such lenses invaluable for a wide range of applications. The inventions of

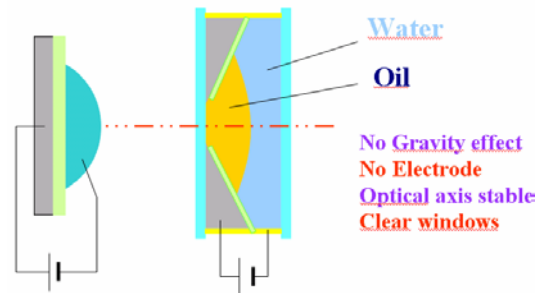
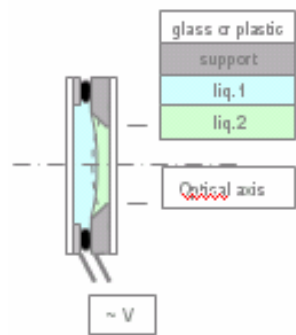
the auto-focus lens in 1977 and the proliferation of zoom lens in 1980's and 1990s made mechanical lenses more expensive, complex and delicate, and heightened the relative advantages of a single element solution.

Varioptic has solved this problem. The company holds the international patents on the only feasible single-element focusing lens in existence or currently under development. The Varioptic approach is to sandwich two immiscible, liquids, one of them conductive, between transparent panes, attach contacts, and control the shape of the border between liquids through current, using electro-wetting principles. The resulting product, called the vLens, is two to three times cheaper to produce than comparable conventional lenses; one hundred times more durable, ten times faster, and uses substantially less power.

Liquid lenses are fully adapted to the next generation of mobile devices which integrate imaging features : phones, PDA's, digital camera and video...

**For these devices,
Varioptic's technology
brings potent advantages
:**

- Extremely small scale (external diameter 8mm, thickness 2 mm)
- Easy setup
- Fast response (less than 2/100e s)
- Low electrical consumption



Increasing Use of the vLens through Technology Assessment Programs

To allow its prospects to evaluate tunable lenses based on the electrowetting technology, Varioptic set up a Technology Assessment Programme (TAP).

Once a non disclosure agreement has been signed between both parties, Varioptic commits to deliver samples of tunable lenses according to specifications based on information provided by the customer on the applications needed, the technical performance, the volumes of production associated with the application and the schedule, plus one power supply.

To enhance performance of the lenses on an on-going basis, the customer accepts to share technical results (Electrical and Optical data, schedule of potential usage, performance needed in the application) with Varioptic every month. The cost of the Technology Assessment Programme depends on the type of lenses, the support chosen (through Hot-Line or at customer's premises), and the possibility to replace non functional samples.