

EVENTO DE NETWORKING

HEALTHCARE & PHOTONICS

TECNOLOGIAS FOTÓNICAS APLICADAS AL SECTOR HEALTHCARE

26 MARZO/14

09.45h-17.00h
Parc Audiovisual
de Catalunya
Carretera BV-1274,
Km.1, 08225 Terrassa
(Barcelona)



ascamm

Member of

centre tecnològic

TECNIO

Be tech. Be competitive

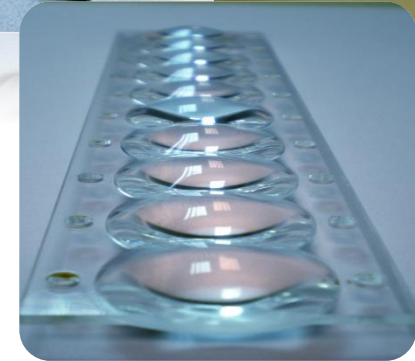
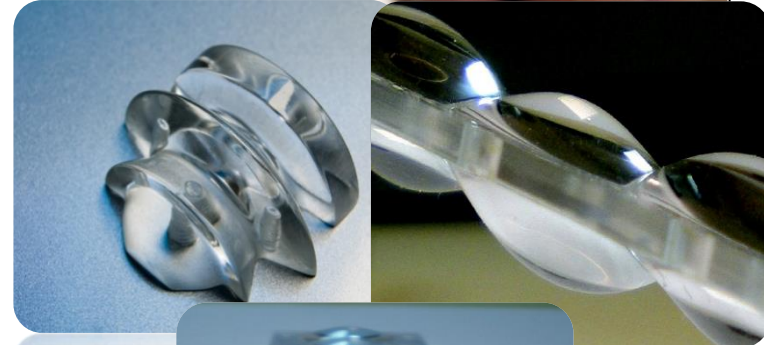
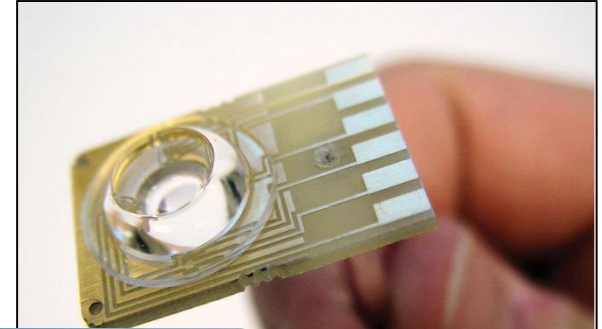
**Guiando la luz para la salud:
el potencial de las ópticas
plásticas**

Why Polymers optics?

Optical Polymers have very relevant advantages over mineral glass

- Lightweight (half the density)
- High resistance to mechanical shock
- Cheap raw material
- Cheap high-volume production
- Cheap non-spherical features (aspheric, free-forms, diffractive)
- Integral mounting (no thermal expansion issues)

So optical plastics are (much) better than optical glasses for non-imaging applications!



Design & Manufacturing technology

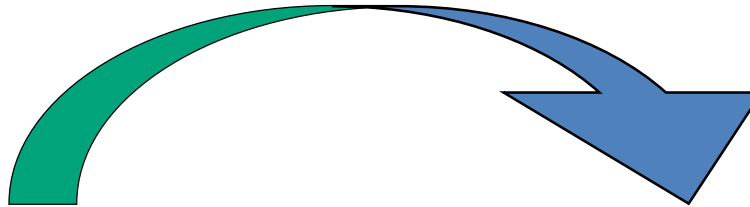
- 1.- Client specification
- 2.- Simulation & prototyping
- 3.- Manufacturing & functional test

Optical Design + Physiological Optics & Color

Mechanical & other constraints

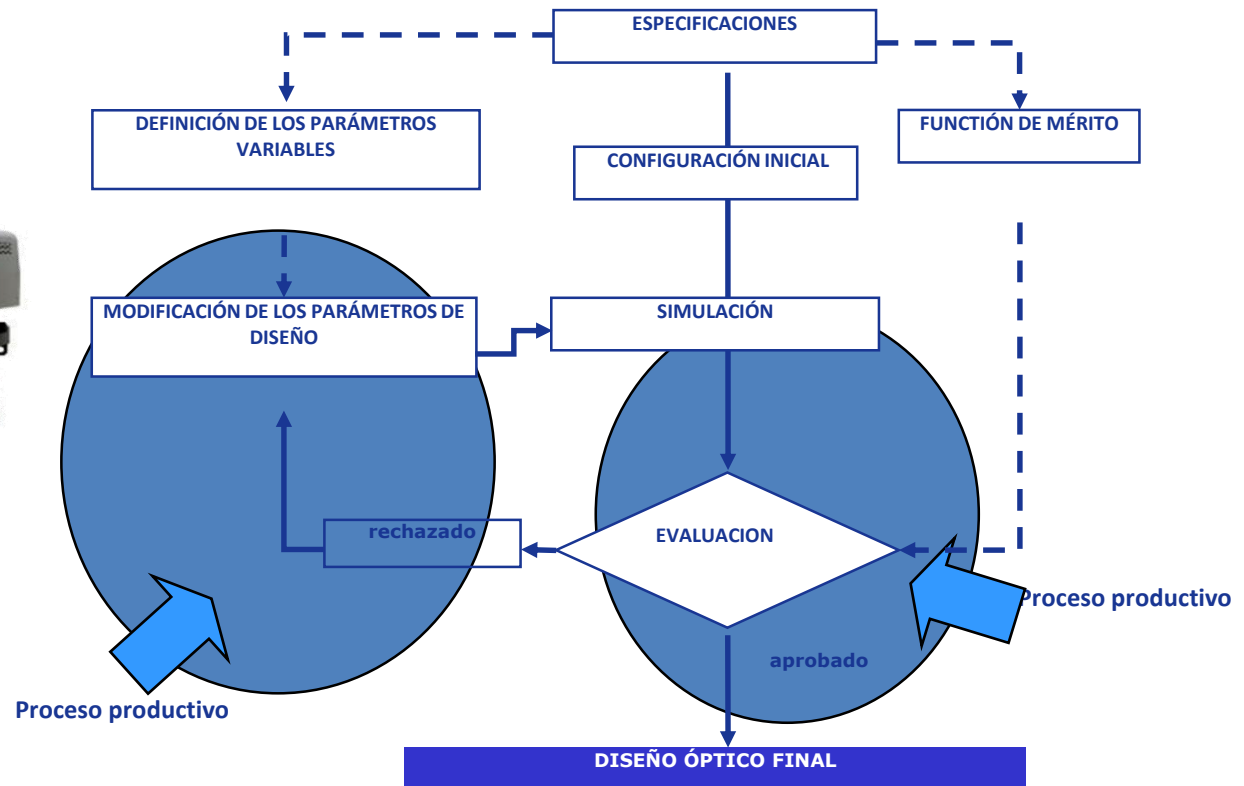
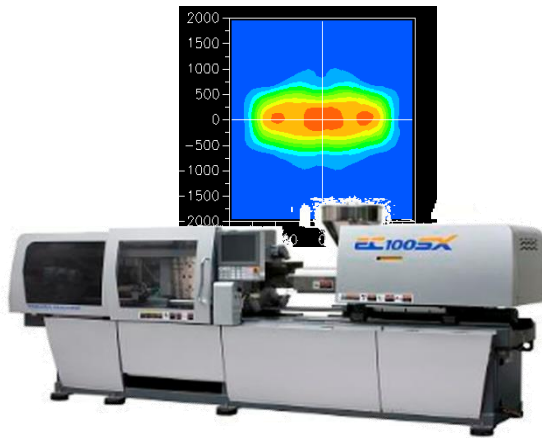
Illumination distribution,
color, standards, space
sensation,....

Client specifications are
defined in collaboration



Design & Manufacturing technology

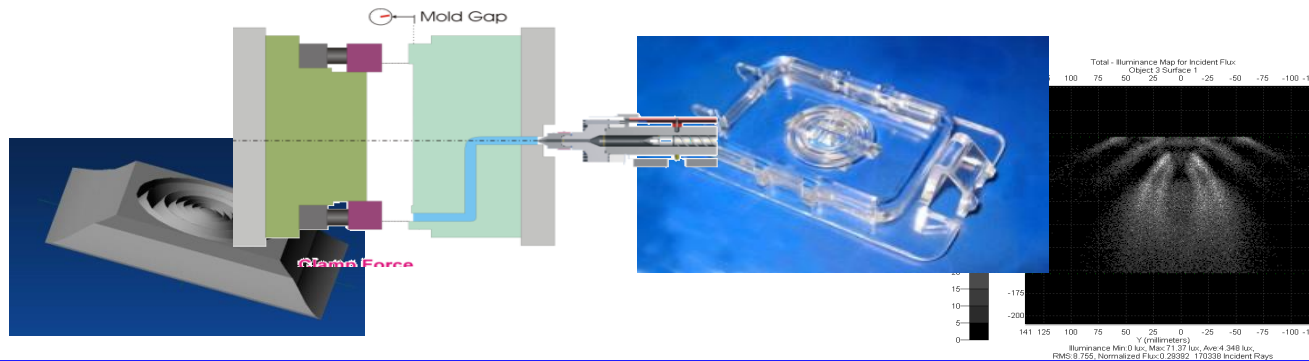
Introduction of manufacturing tolerances at the optical design stage.



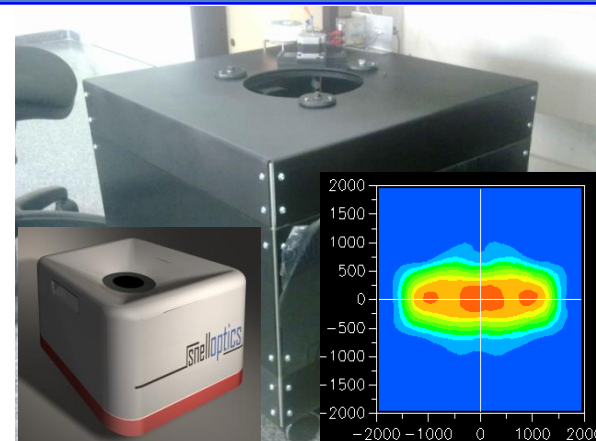
New interaction with the client, software packages' output. A prototype is build. Discrepancies between simulation and product are removed.

Design & Manufacturing technology

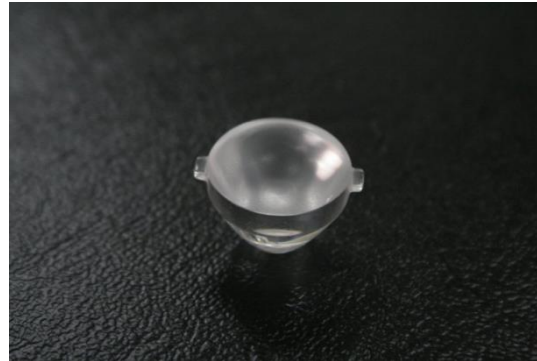
Manufacturing & functional test



- We perform a full optical test in real working conditions, with measurement equipment especially developed for this functional control: **in-line quality control**



Individual lenses



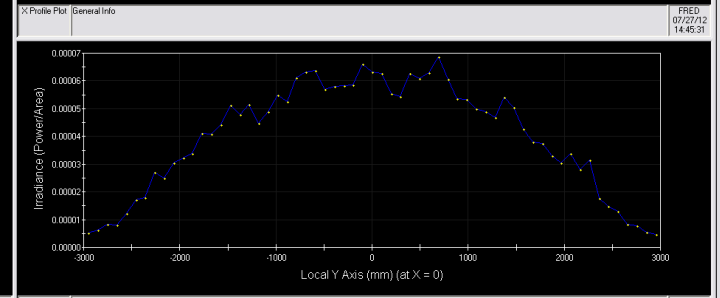
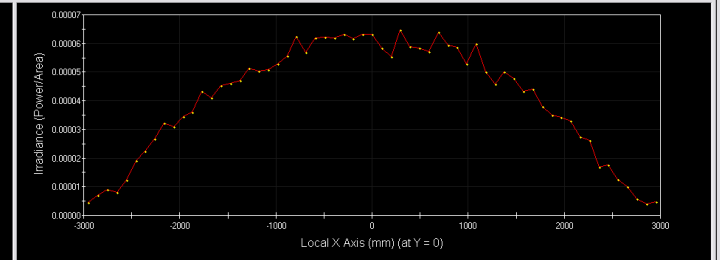
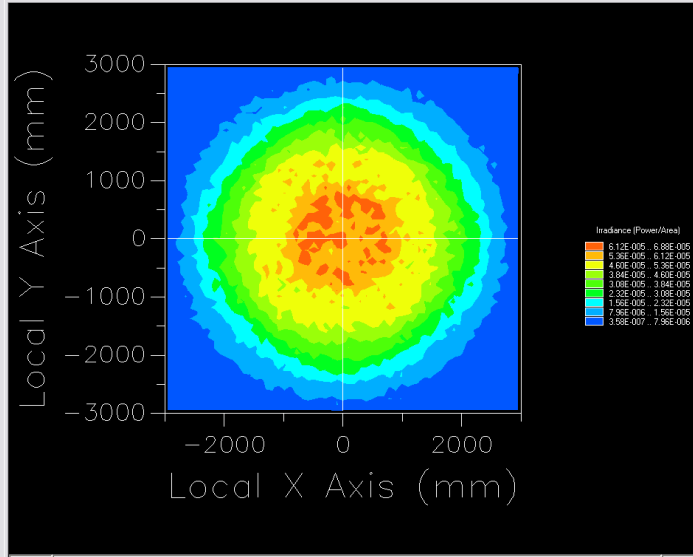
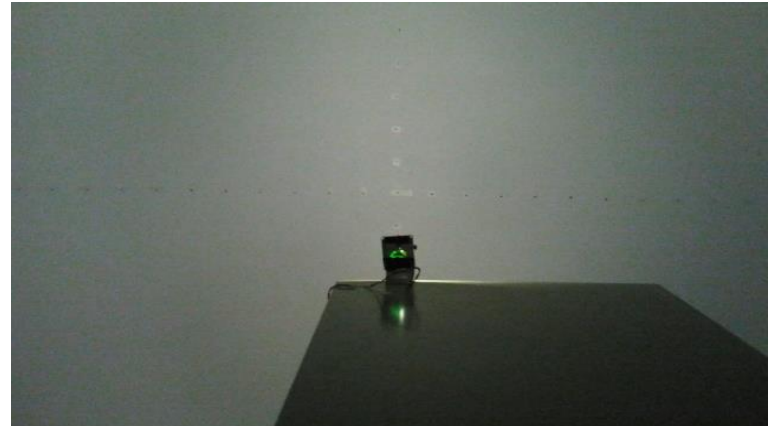
Non-imaging Examples

Array lenses



Non-imaging Examples

We measure the light distribution achieved with our own equipment and prepare a **subjective sensation test** for the client.



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 07/27/12
 14:45:31

Medical instruments, lighting applications



Healthcare environmental lighting, special effects

Color Kinetics



Catharina Hospital



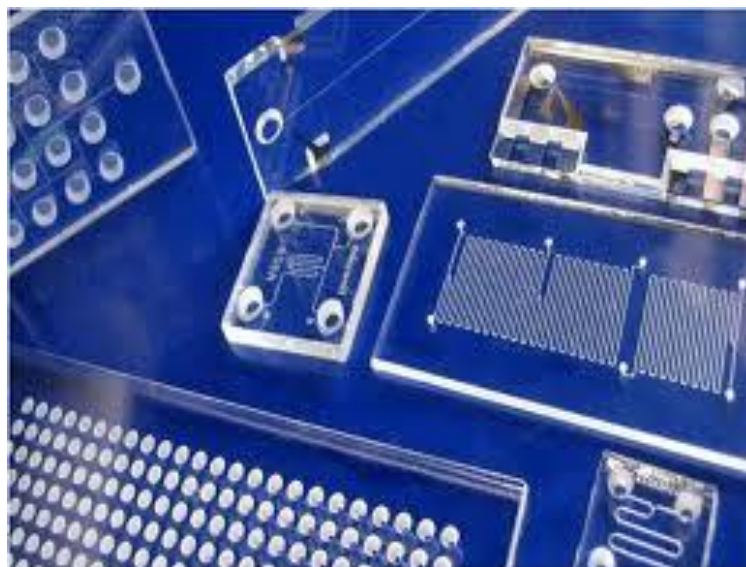
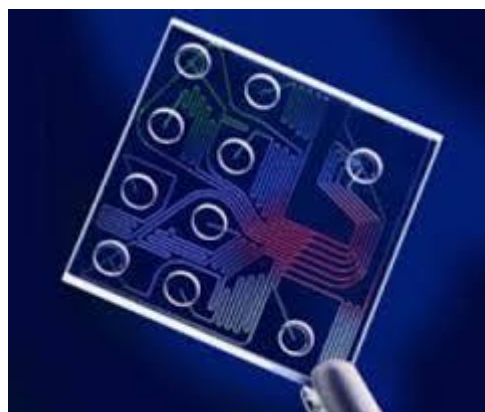
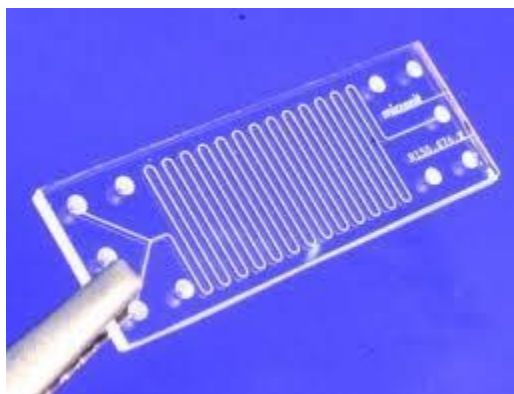
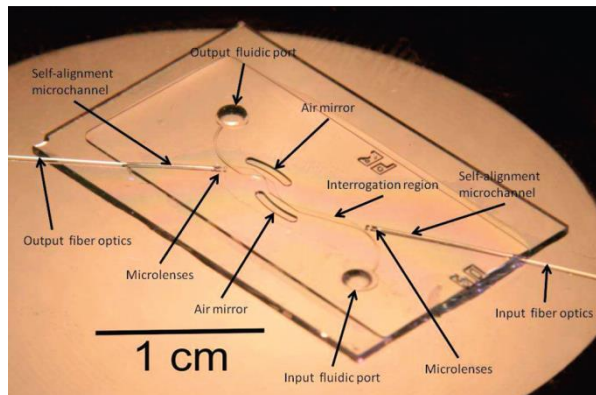
Royal Bradford Infirmary



Phoenix Children's Hospital



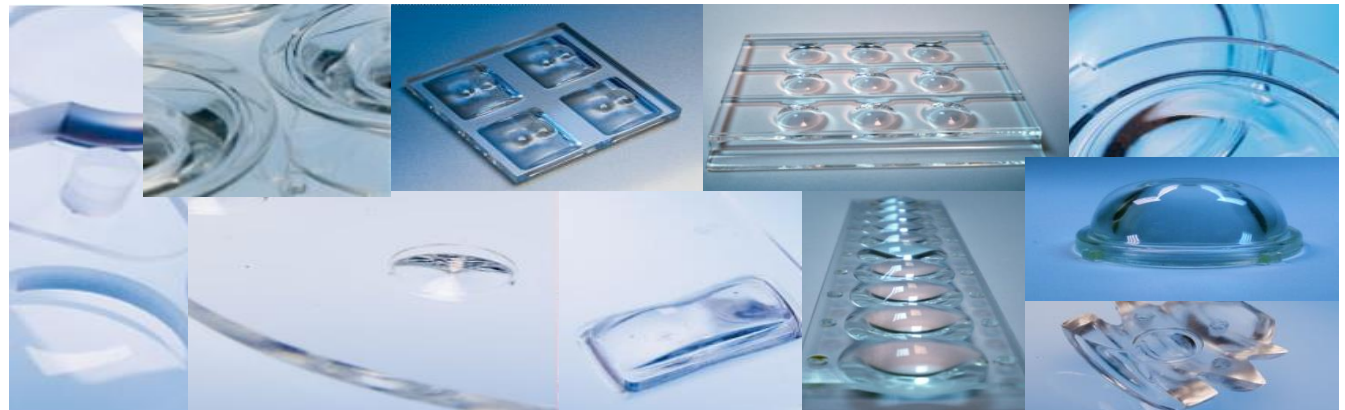
Biotechnology: Lab on chip components



QPO LENSES S.L SME founded (2013)



Manufacture of Optical Polymer Components for Photonics Devices



ASCAMM, Processos industrials pel sector Salut:

Desenvolupament de dispositius, instrumentació i equips.

- Desenvolupament d'implants, òrtesis i pròtesis
- Desenvolupament d'instrumental quirúrgic i material hospitalari
- Estudis de fabricabilitat, viabilitat tecnològica i econòmica
- Selecció de materials: polímers, metall, compostos
- Fabricació de prototips funcionals, validació tècnica
- Tecnologies de processat, micro-fabricació i industrialització
- Automatització i robòtica

Solucions personalitzades en Sistemes intel.ligents

- Sistemes experts TiC per suport a presa decisions, planificació recursos
- Tecnologia posicionament indoor/outdoor

Moltes gràcies !!



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