



## Introduction to Minalogic

Labex PRIMES – June 2014  
Fabien Boulanger- Dir Tech



[fabien.boulanger@minalogic.com](mailto:fabien.boulanger@minalogic.com)  
[www.minalogic.com](http://www.minalogic.com)

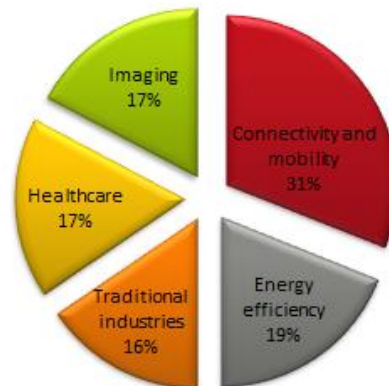
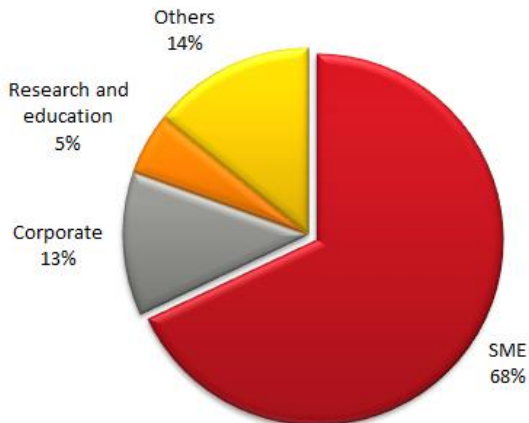
# Minalogic Cluster at a glance

- ▶ Minalogic is a Global Technology cluster (pole de compétitivité), focused on **Micro/nano Electronics** and **Software**, acting **Rhones-Alpes**.
- ▶ Two main roles :
  - **Foster innovation** through collaborative market driven R&D projects between SME's, Large Groups & Research labs
  - Provide support to **accelerate growth** of Innovative SME & start-ups

▶ 225 members, incl **145 SMEs**

▶ **259 projects** launched, **250M€** R&D investment/yr  
**100M€** funding /yr

▶ Ranked Cluster of Excellence **Gold Level** since 2012



# Technologies

## ▶ Micro-nano

- CMOS / FDSOI
- MEMS
- Imaging
- Large area electronics
- Fabless
- Energy harvesting
- LED / OLED
- Electronic Design Automation (EDA) tools

## ▶ Software

- Cloud Computing
- Big Data / Search / Analytics
- High Performance Computing
- Simulation / Modelisation
- Cyber Security / Privacy / Trust
- Safety
- Multimedia Signal Processing
- Geolocalisation
- Protocols & Infrastructure for IoT

# Minalogic offering at a glance

**Find your way!**

Meet the experts to get  
feed-backs vs your startegy & concerns

**Network**

Discover and enrich  
a world of opportunities !

**INNOVATION**

Fostering innovation  
through collaboration

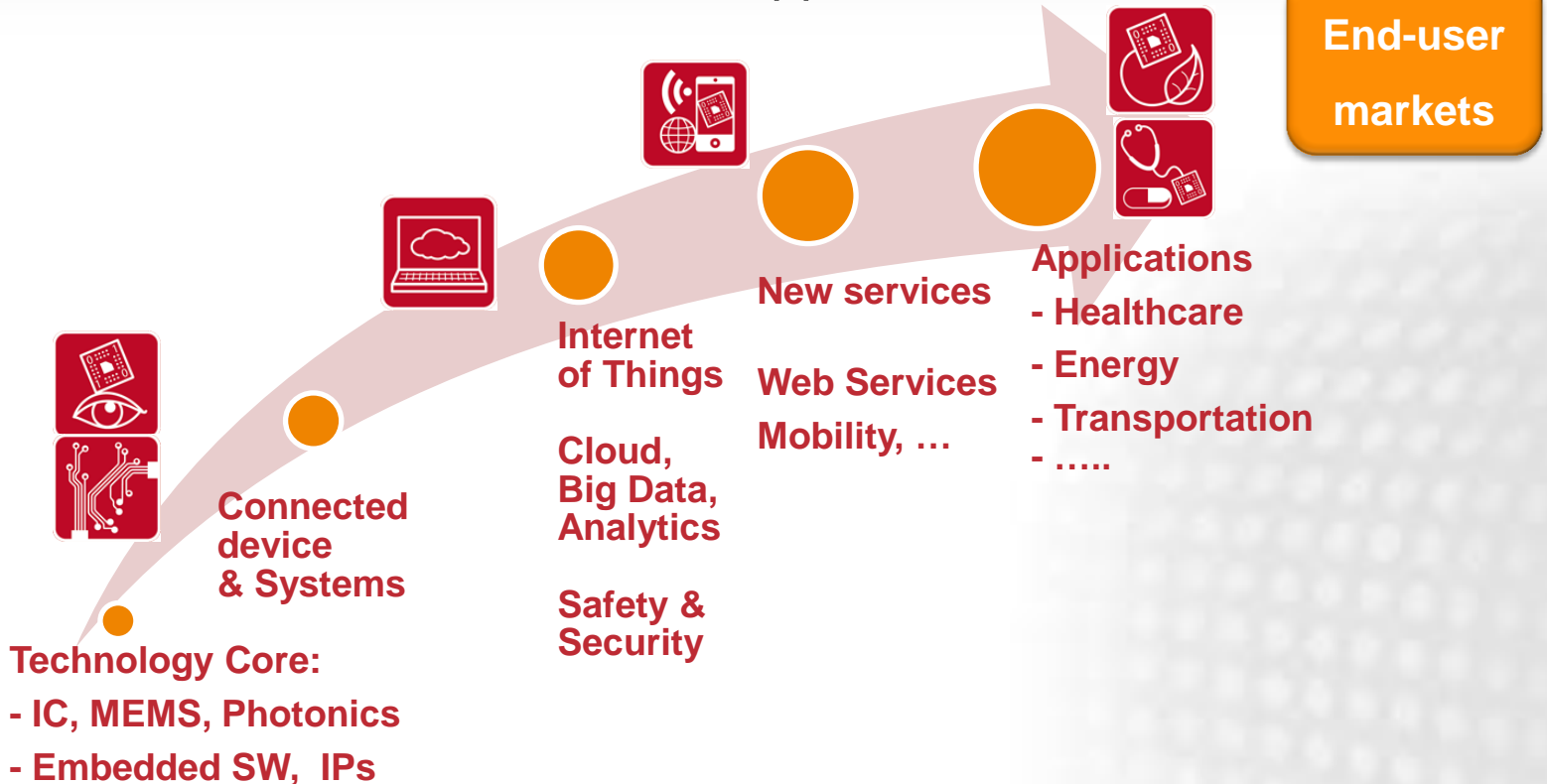
**BUSINESS**

Boost your Growth



# A positioning across the whole Value-Chain

## ► From Core Techno to Software & applications



## ► Targeted markets :

### ▪ **Healthcare :**

- Robot Assisted Surgery
- Medical Devices & imaging
- E-Health / Wellness / Silver Economy

### ▪ **Energy**

### ▪ **Transportation**

### ▪ **ICT**

# Markets

## ▶ Energy

- Smart Grid
- Smart Buildings
- Smart Cities

## ▶ Healthcare

- Robot Assisted Surgery
- Medical Devices & imaging
- E-Health / Wellness / Silver Economy

## ▶ Other Industries

- Smart Factories
- Traditional industries
- ...

## ▶ Transportation

- Smart roads
- Connected & Autonomous Vehicles
- Aerospace & Aeronautics

## ▶ ICT

- Internet of Things
- IT & datacenters
- Telecommunications (fixed and mobile)



# Grenoble : a center of Excellence in ICT

## ...with International recognition !

- ▶ France's **2nd-largest hub** for ICT research
  - 9 national & 4 international research centers



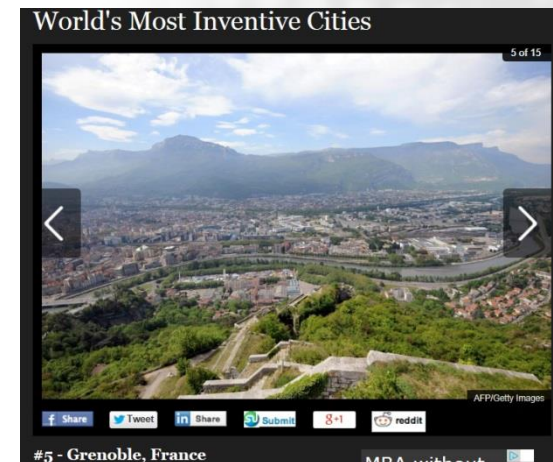
- ▶ **40,000 jobs in ICTs**, with **Global leaders**
  - 25 000 jobs in semiconductor
  - 15 000 jobs in Software



- ▶ 3,000 ICT graduates per year
  - 29 Engineering programs,  
**600 PhD / yr**



- ▶ Forbes Ranking July 2013  
Grenoble, the **5th most inventive city in the World**





# HEALTHCARE MARKETS

Collaboration with LyonBioPole, I-Care, Pole Techno Medicales, Clara, Tasda, Medic@alps & Optique RhoneAlpes.

Project Health2care.



# Cosirix



- ▶ X-ray flat panel digital detectors for the entire radiology imaging industry
- ▶ Very large CMOS circuit : better resolution and speed, for lower patient exposure.

▶ <b>Duration</b>	48 months
<b>Effort</b>	70 man.yr
<b>Budget</b>	12 M€

- ▶ **Partners:**  
Trixell  
CEA, Pyxalis, Lyon university,  
VS Group

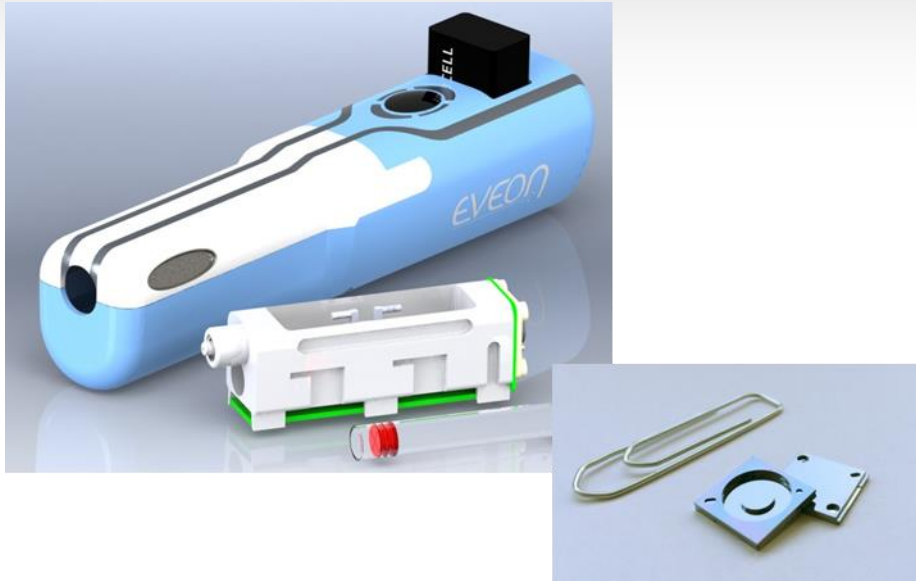
# Fluoromis II



- ▶ Fluorescence and Robotic for minimally invasive surgery
- ▶ Robotic arm and miniaturized fluorescence imaging technology within an endoscope

- ▶ **Duration** 36 months
- ▶ **Effort** 26 man.yr
- ▶ **Budget** 3.2 M€
- ▶ **Partners:**  
Endocontrol  
CEA, Fluoptics, Grenoble University

# Flumin3



- ▶ Drug delivery – a MEMS micro-pump for smart injection.
- ▶ This MEMS outpasses the performance of state-of-the-art micro-pumps and integrate sensors

- ▶ **Duration** 36 months
- ▶ **Effort** 25 man.yr
- ▶ **Budget** 4.6 M€
- ▶ **Partners:**  
Eveon  
ARaymond, CEA, Grenoble  
INP

# Autonom@dom



- ▶ Bundle of services for healthcare and autonomy of elder people
- ▶ E services

▶ **Duration** 24 months

▶ Field test with 600 people planned for 2015-2017

▶ **Partners:**  
Conseil Général Isère, Tasda, local hospitals, local companies, local authorities and associations

▶

# Movea technology in Babolat products



- ▶ **Duration** 45 months
- ▶ **Effort** 34man.yr
- ▶ **Budget** 6,3 M€
- ▶ **Partners: (MAX6 project)**  
Movea (+Babolat), Tronics, thales, CEA

- ▶ Babolat connected racket scrutinizes your every tennis move
- ▶ Sensors tucked into the handle measure power, impact location, number of strokes, spin, and type of stroke
- ▶ Creation of the start-up Movea when the project was launched

