

# **AW**Sensors**Dx**

REVOLUTIONARY DIAGNOSTIC TOOLS

# Company history

## Biosensors Lab-Greece

- 2004-2007: HFSP **grant**
  - 2008: **Patent** 1 (granted)
  - 2012-2015: FP7-ICT EC **grant**
  - 2015: **Patent** 2 (PCT)
  - 2016-2019: Horizon2020–Two Innovation **grants**
    - 2017: **Patent** 3 (UK application)
  - 2017-2020: Horizon2020
  - 2017-2020: FET-OPEN **grant**
- E. Gizi & G. Papadakis (Founders)  
A. Tsortos

2017

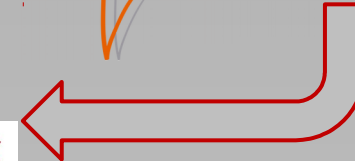


Property Development  
Management Company



## AWSensors-Spain

- 2010: **Spin off**, Polytechnic University of Valencia
- 2010: **Patent** 1 (granted)
- 2017: **Patent** 2 (granted)

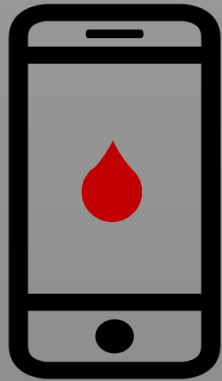


# OBJECTIVE

“ The development of systems based on **acoustic wave devices** and corresponding electronic units for **molecular diagnostics** and specifically for **point-of-care** applications, including the development of acoustic devices, hardware, firmware, protocols and/or integrated platforms, as well as their related services and their marketing.”

# IMAGINE A WORLD...

Your smartphone



can look  
into your  
blood

Your doctor



is immediately  
notified  
when your health  
is at risk

You can act



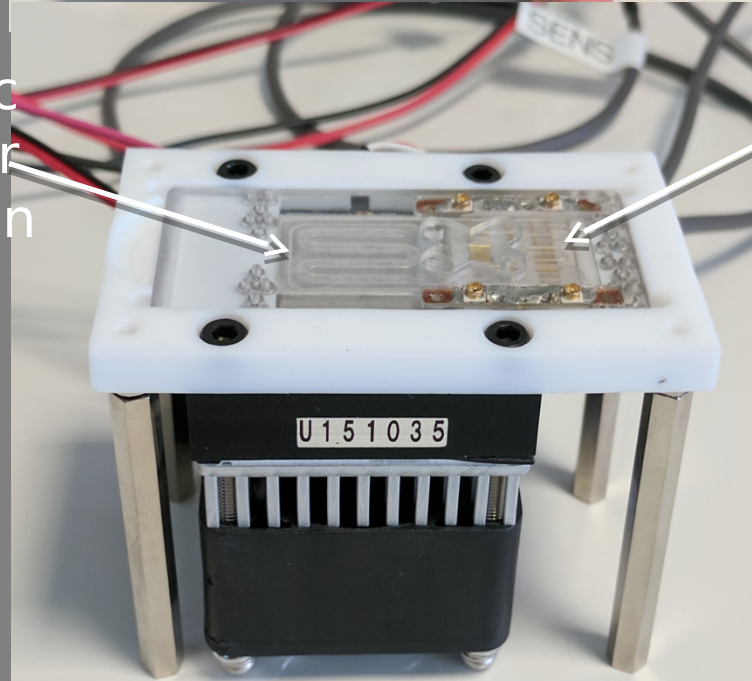
before  
the symptoms  
of a disease  
appear

# BIOSENSORS LAB PROTOTYPE

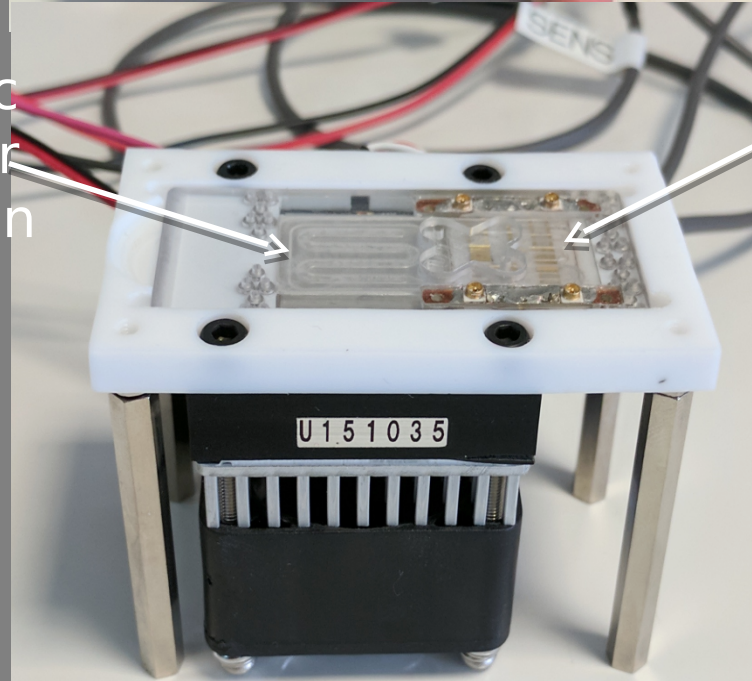
Data monitoring  
and analysis  
application



Plastic microfluidic  
channel for  
DNA amplification



Acoustic chip for  
DNA detection



# COMPETITIVE ADVANTAGES

- Low production cost
  - Smartphone operation and data transmission through the cloud
- Small and easy to operate system
  - Point-of-care operation
- High sensitivity- Good detection limit- Fast analysis time

# COMPETING PRODUCTS

## Cell cultures

- Simple
- Time-consuming
- Lab-based



## Optical systems

- Fluorescence-based
- Accurate/sensitive/
- Lab-based
- Trained personnel
- Expensive



## Alere i

- DNA based point-of-care
- Targets: influenza & streptococcus

## Abbott i-Stat

- Protein biomarkers



## DNA Sequencing

Sensitive  
Expensive  
Time consuming



**SIEMENS**  
Healthcare

## Cepheid GeneXpert Omni

- Integrated DNA detection
- Lab-based



## Paper analysis

- Inexpensive
- Portable
- Low sensitivity



# AWSENSORS DX UNIQUE SOLUTION

Sensitive DNA detection technology (patented)

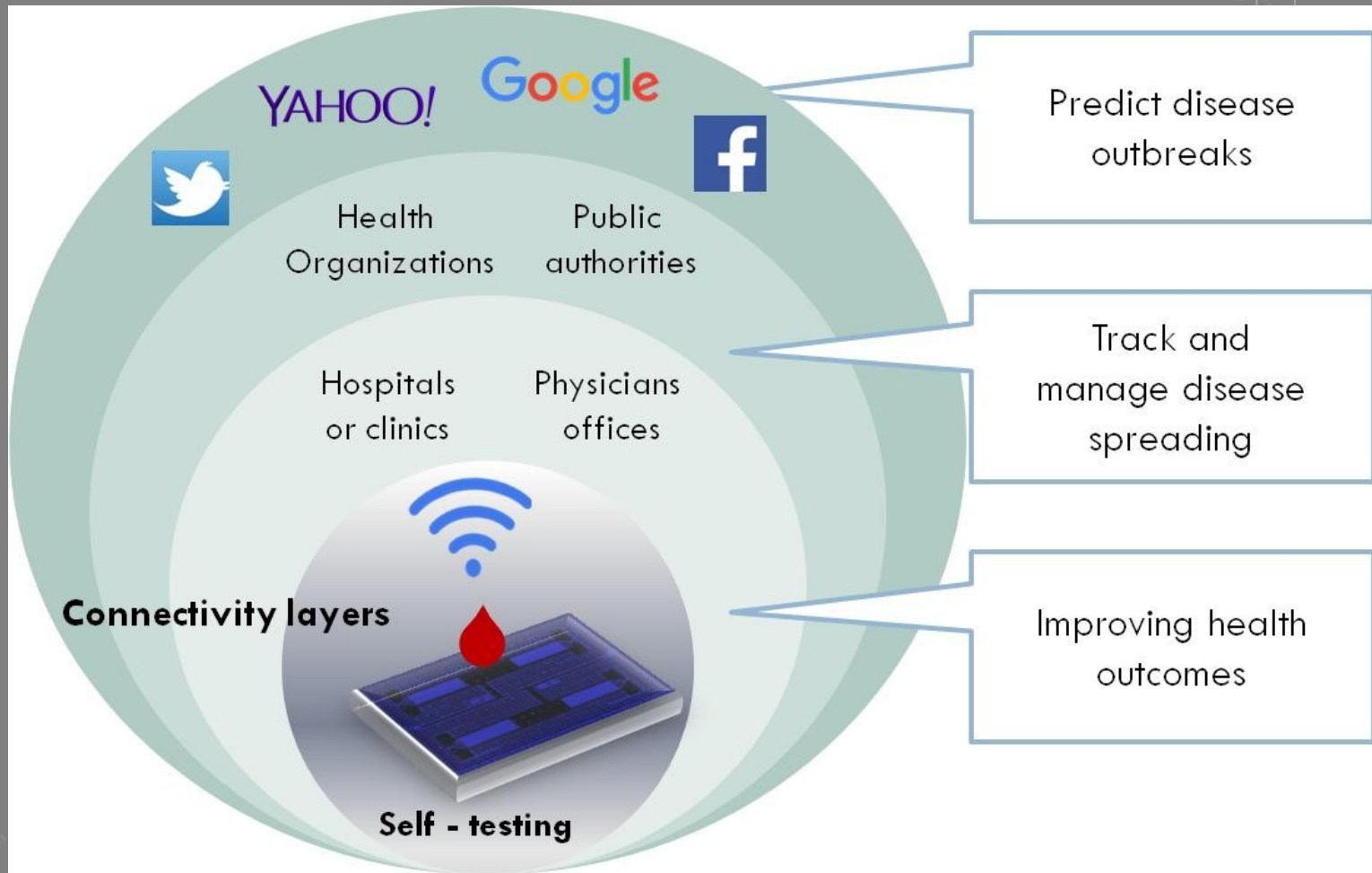


2. Acoustic  
wave  
devices  
(<\$1)

3. Connectivity with smartphones  
and networks



# THE FUTURE



# MARKET VALUE

## THE NEXT BIG THING

6 billion active mobile phones

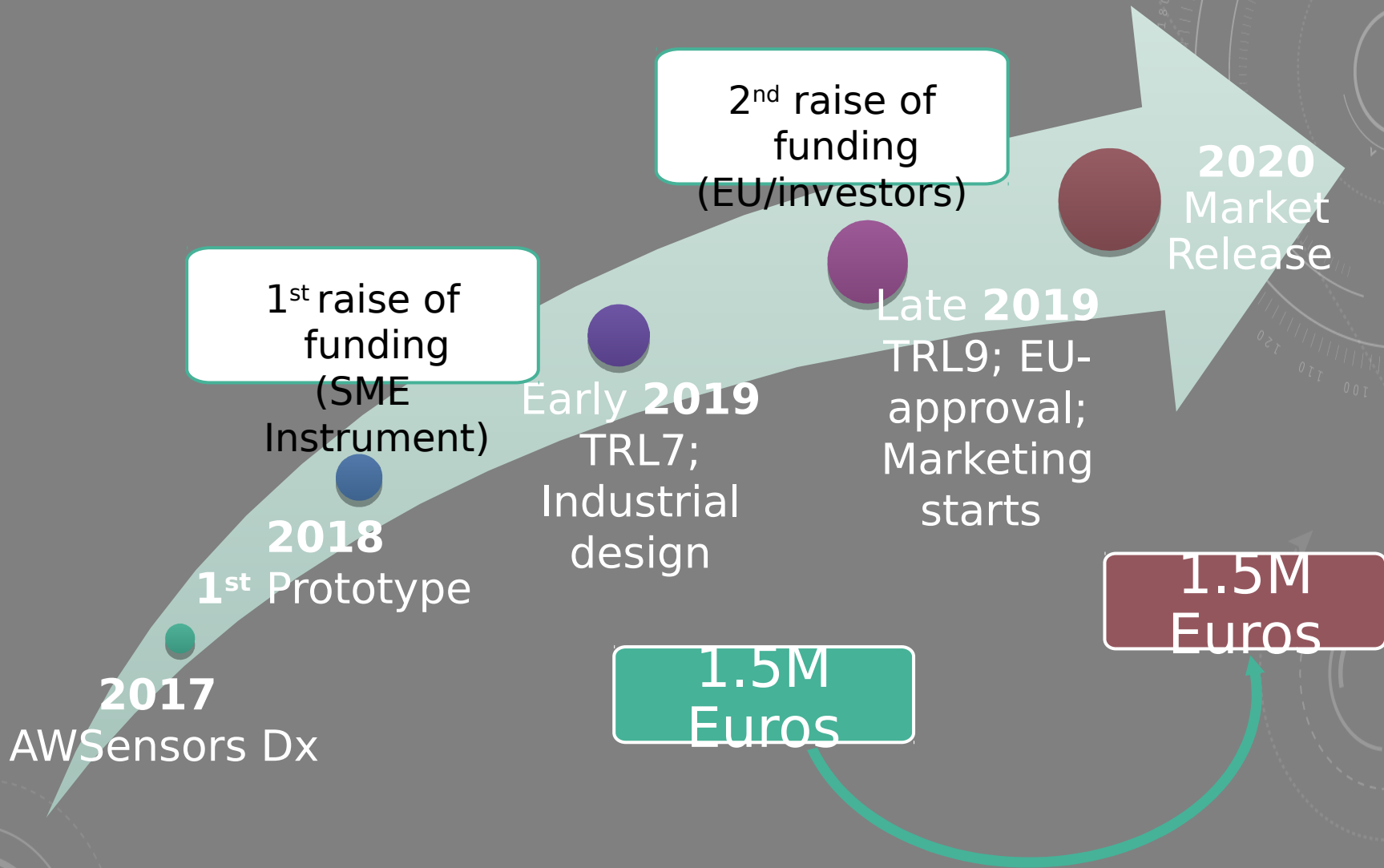
500 million users of health app.

Internet of Things  
in the health market:  
**\$117 billion until 2020**

Diagnostics at the point-of-care:  
**\$9 billion in 2019**

Growth rate  
8 & 22%

# TIMEFRAME UNTIL MARKET RELEASE



# POTENTIAL SOURCES OF INCOME/END USERS



■ Home

■ Doctors

■ Hospitals

■ Mobile network operators

■ Medical instrumentation

■ Collaborations



<https://awsensorsdx.com>