



Innovation action

Workshop

Get ready to be part of the medicine digital revolution from drug discovery to e-health

Project ID: 644856

H2020-ICT-2014-1

6 July 2016





Innovation action

INITIATE THE INNOVATION CYCLE WITH SMEs

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Big Data

Cloud

Smart cities

Autonomous vehicles

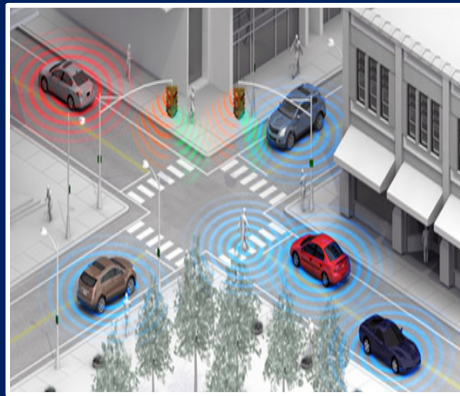
Robotics

Smart buildings

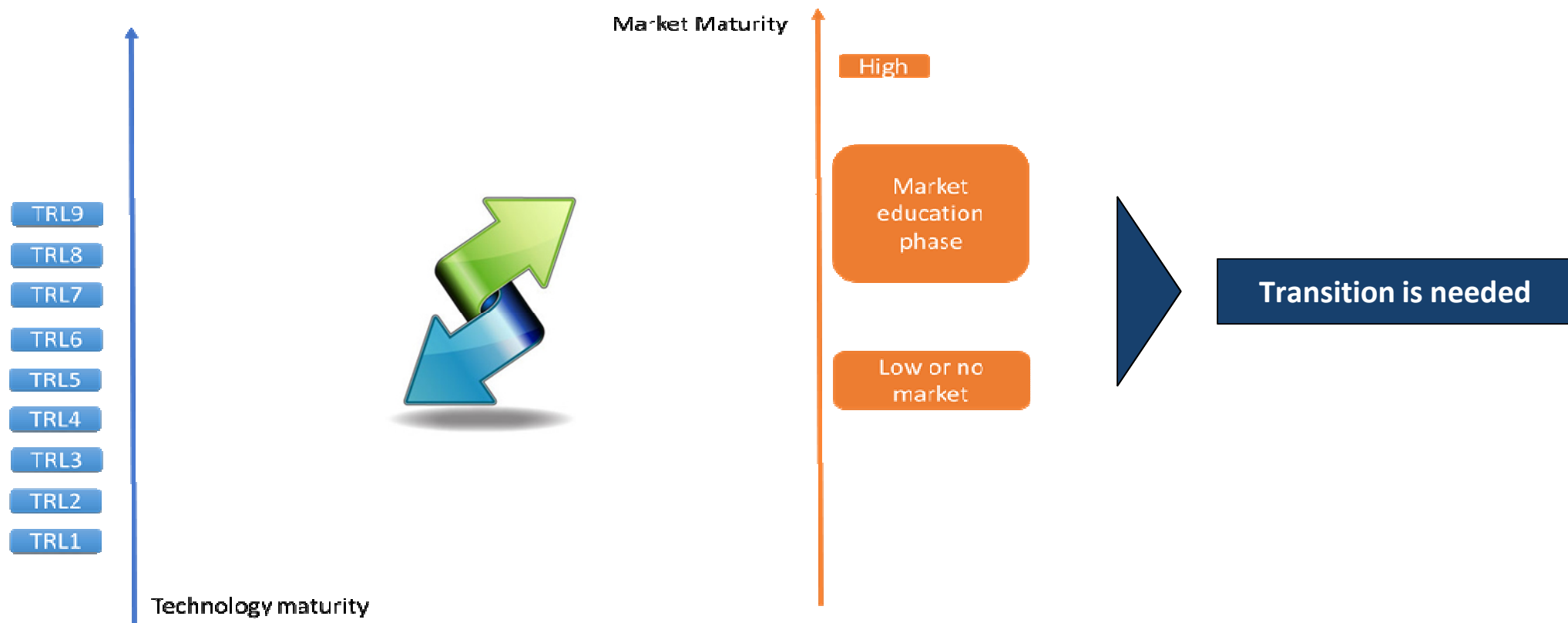
Quantified self

”Smartization is in progress. It is a 54B€ innovation opportunity in 2020 for connected devices.

Source: Yole Développement

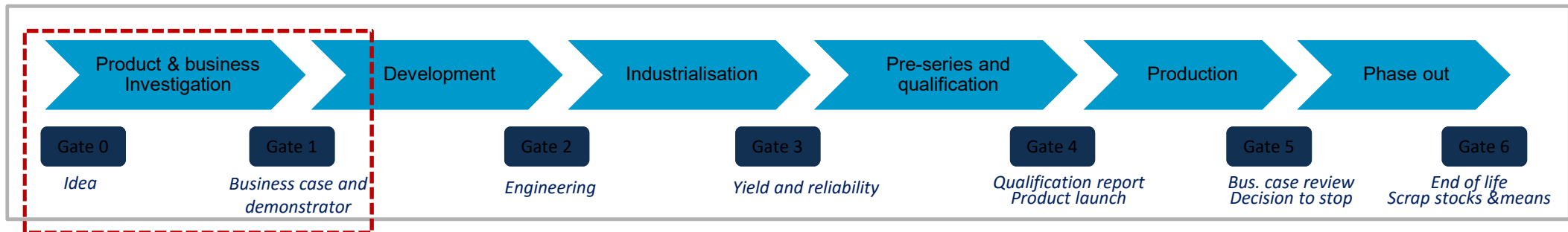


Smart innovation and NPI process



Smart innovation and NPI process

Gateone-project adapt a NPI process



MISSION



Smart System is a huge innovation opportunity for SMEs.

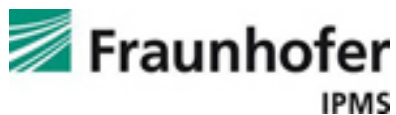
Gateone-project ambition is to generate a sustainable “venturi effect” for smart systems solutions adoption by European SMEs.

Gateone-project initiate the innovation cycle



RTOs and SMEs work together to design new products representing breakthrough or radical innovation

Makers

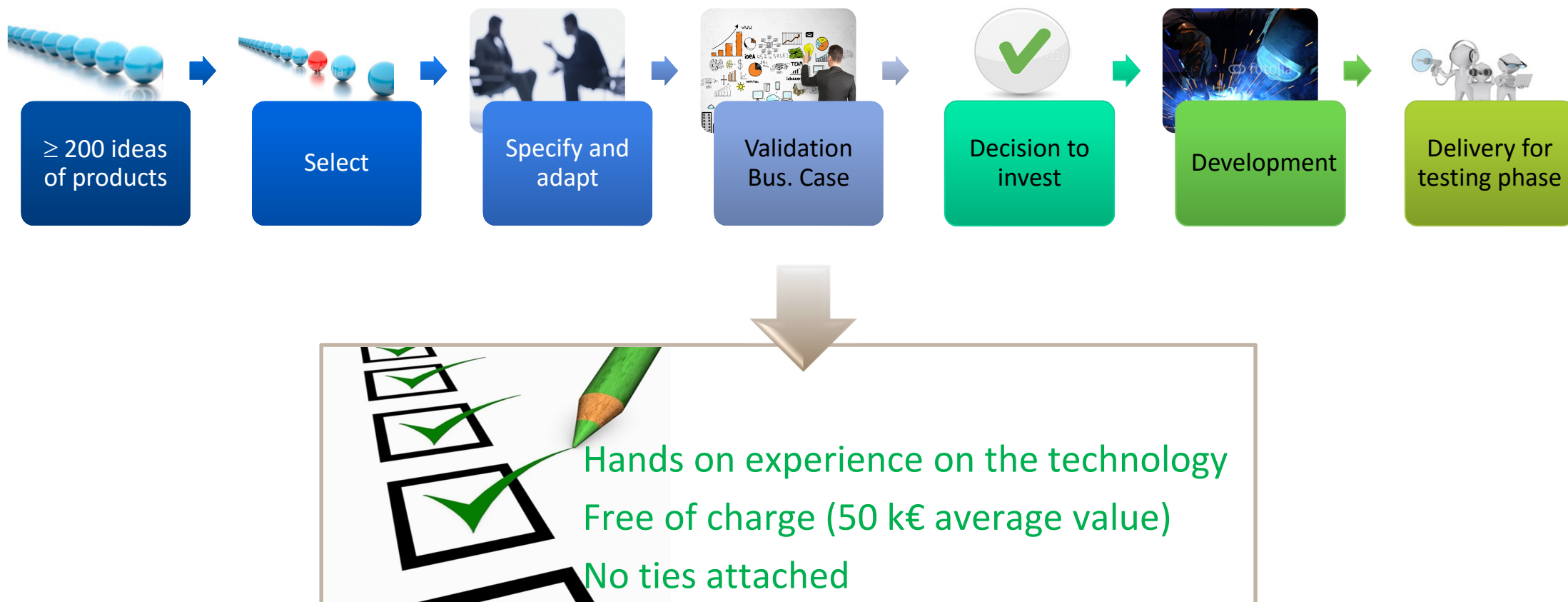


European Investment in Smart System Innovation Actions

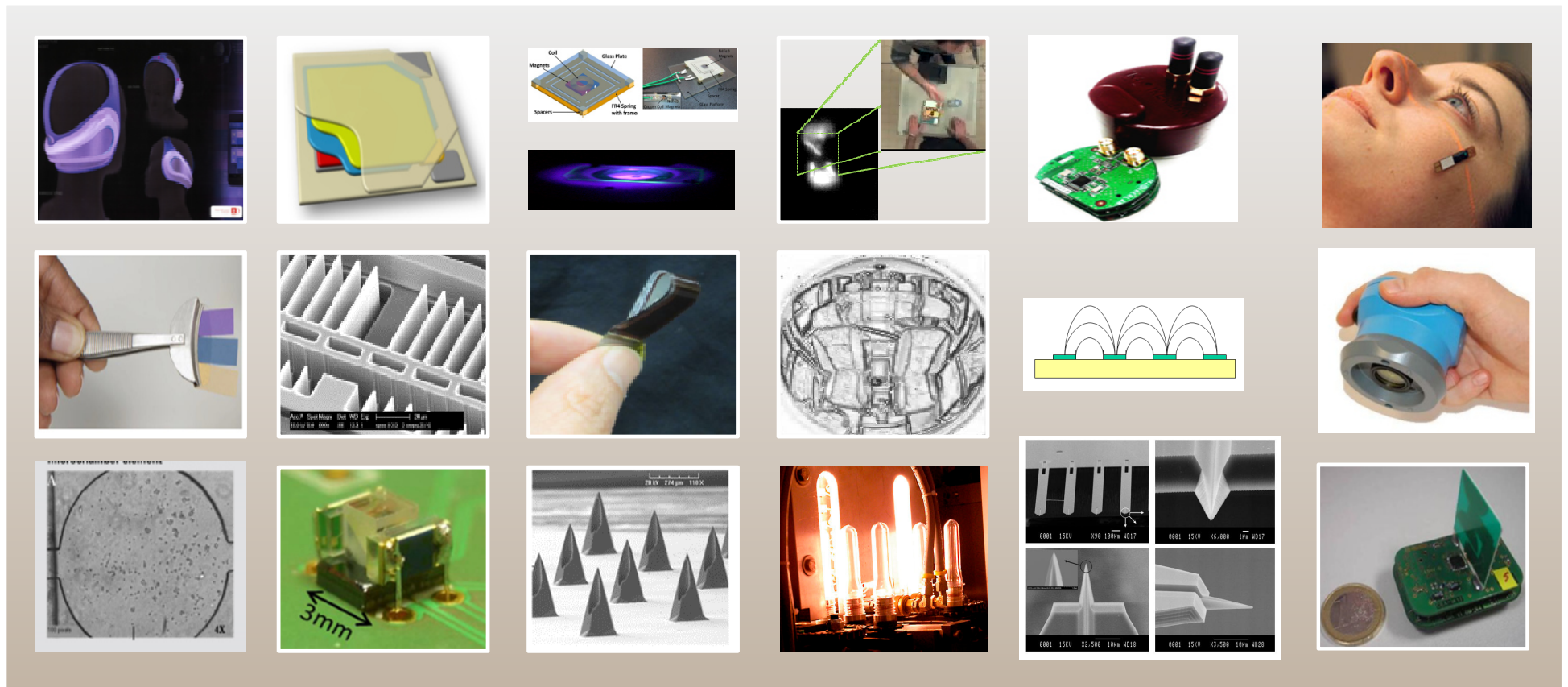


4 Innovation Actions, 25 M€ with 11 member states

A simple process to engage SME into innovation



More than 200 ideas of products



OBJECTIVES:

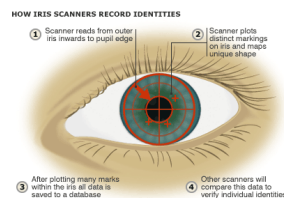
- 50 demonstrators in 3 years
- 50% must deal with companies not in the smart systems.
- Cover multiple industrial fields (minimum 7)
- 25% of demonstrators are SMEs in biorelated markets
- Demonstrate cross border partnerships between SMEs and RTOs (SAE vision)



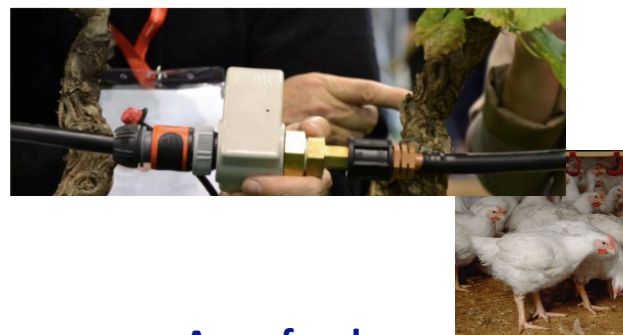
COVER MULTIPLE INDUSTRIAL FIELDS



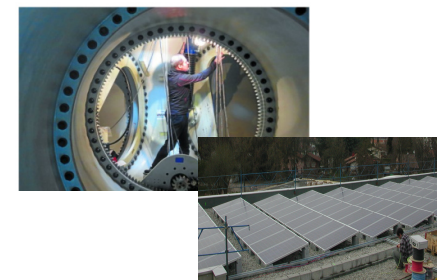
Medical



Safety and security



Agro-food



Energy



Instrumentation



Process control



Consumer/sport



Smart cities

Foreseen IMPACT of gateone-project



New products

New features in an existing product

Differentiation

Support the emergence of new markets

WHY SMEs like Gateone-project

No Financial investment

Access to state of the art technology

A fast decision process

A risk release on a short timeframe

Support access to new customers for SMEs



Success stories

LETI-ALPRIDE

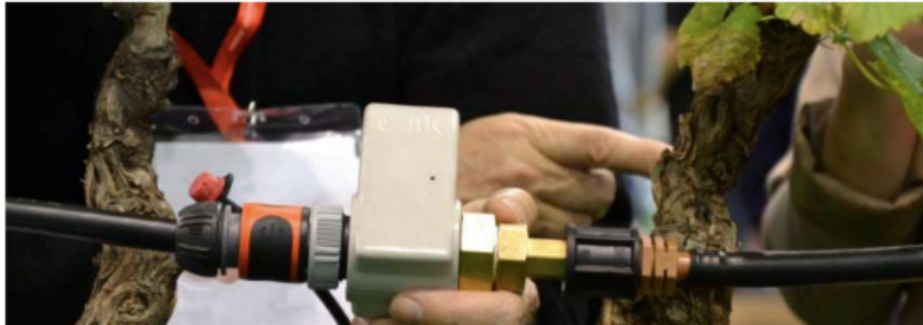


- **The Total Additional Adressable Market for Alpride is 8M€**

« Thanks to the gateone-project, we made the demonstration of a brand new product concept to our lead customers, this is an important market feedback before we make a decision to launch a product development »

Marc-Antoine Schaer - CEO

LETI – ITK



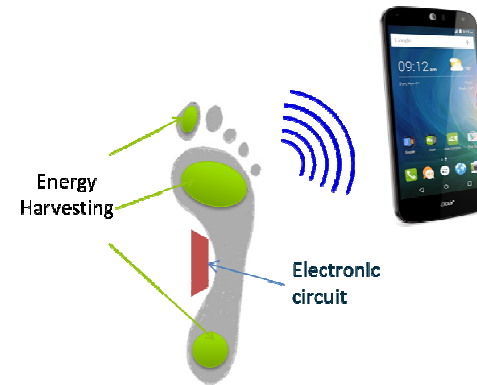
- **Ambition : 20M€ of revenue on the IoT offer in 2020**

- **Value Proposition:** Autonomous sensor which measure and transmit water flow information being powered

« The gateone-project supported our hardware transition to the Internet of Things. The acquisition of knowledge during the demonstrator evaluation was of great help during our discussions with our customers. »

Eric Jallas- CEO

LETI – Rcup



- **Objective : Test on the first customer site (gas pressure factory)**

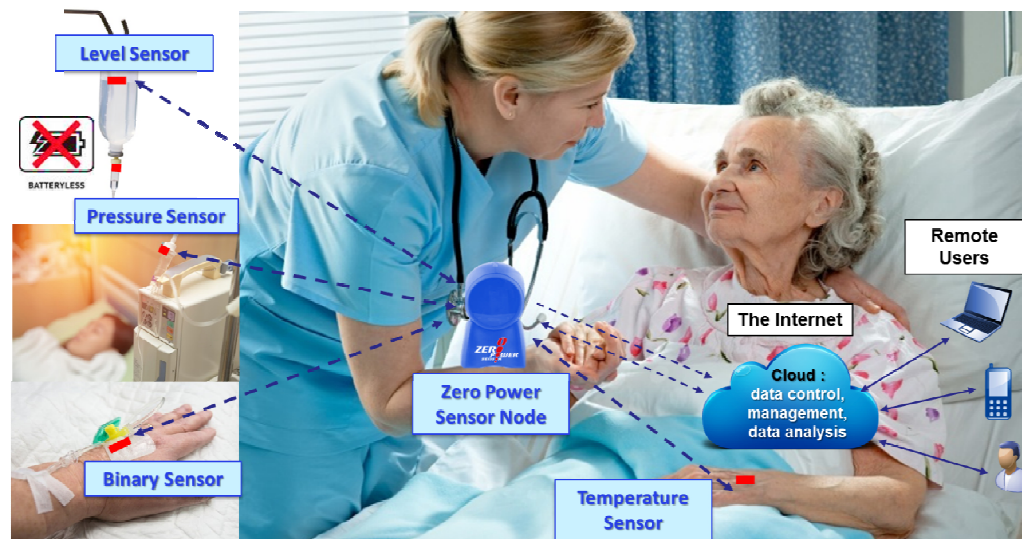
« The gateone-project became a tool for our business development and an accelerator of our roadmap. »

Frédéric Lassara- CEO

Demonstrators

Medicine digital revolution

Personal Medical Equipment for patient monitoring



Unique value proposition

- ✓ Remote read out system
- ✓ Multiple wireless and batteryless sensors
- ✓ Unique ID
- ✓ High accuracy for continuous monitoring
- ✓ Complete offer: reader station + cloud + tags of sensors + commercial sensors

What it does

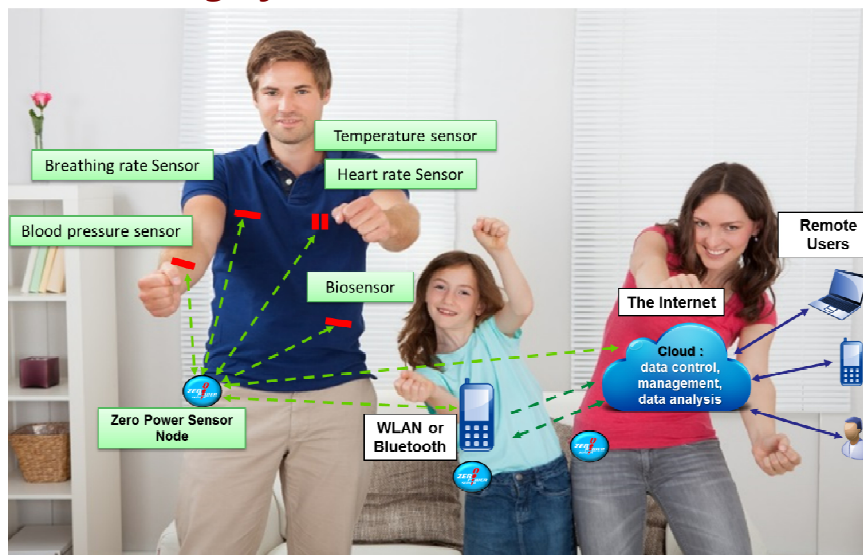
- ✓ Network of sensors collecting data from different intelligent medical devices
- ✓ Monitor condition parameters of the patient and proper functioning of medical equipment

Benefits for users

- ✓ Suitable for home patient monitoring
- ✓ No risk related to battery management
- ✓ Increased patient safety



Daily monitoring of Chronic conditions



What it does

- ✓ Network of sensors collecting data from different sensors
- ✓ Monitor condition parameters of the patient or user and proper functioning of sensors

Benefits for users

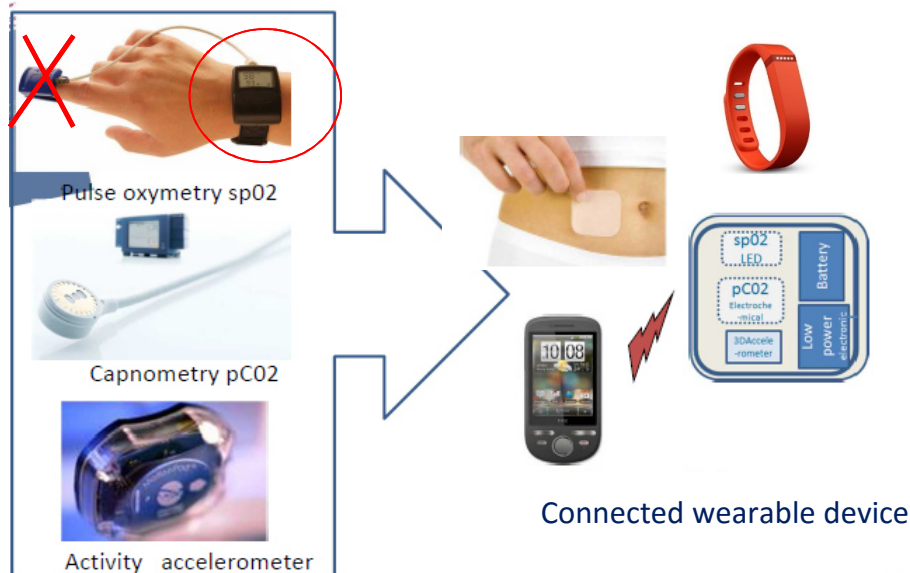
- ✓ Monitor vital parameters for people with chronic conditions and presenting risk of stroke, heart failure etc...
- ✓ Suitable for prevention and patient monitoring for rehabilitation

Unique value proposition

- ✓ Wearable device including remote read out system
- ✓ Batterlyless sensors
- ✓ High accuracy for continuous monitoring
- ✓ Data available on the cloud for monitoring and control by physicians and medical teams
- ✓ Complete offer: reader station + cloud + tags of sensors + commercial sensors



Continuous biometrics data monitoring



Unique value proposition

- ✓ High level of sensors integration
- ✓ Measure of medical parameters like spO2
- ✓ Data fusion for relevant information
- ✓ Validation of the correct conditions to perform the measurement
- ✓ No constraint for the users – just has to use it.

What it does

- ✓ Continuous monitoring of vital parameters: spO2, pCO2
- ✓ Continuous monitoring of blood pressure...

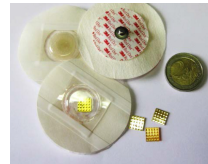
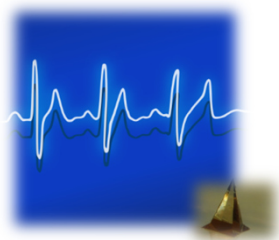
Benefits for users

- ✓ Multifunction integration
- ✓ High accuracy and sensitivity
- ✓ Large autonomy for real use and benefits



Continuous ECG monitoring

MicroTIPS – PS *Physiological sensing*



Examples of possible products
integration

Unique value proposition

- ✓ Allows enhanced measurement accuracy as contact is made to the highly conducting epidermal layers under the skin surface

What it does

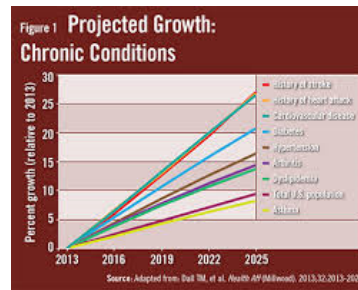
- ✓ Physiological sensing: ECG and respiration rate monitoring

Benefits for users

- ✓ Eliminates need for skin abrasion and/ or gel application prior to electrodes attachment

Continuous control of chronic diseases

Smartphone bio - electrochemical diagnostics



What it does

- ✓ Multiplexed electrochemical detection for ligand-receptor binding
- ✓ Able to handle saliva samples

Benefits for users

- ✓ Little training requirement and reduced measurement errors
- ✓ Allows early diagnosis at low cost

Unique value proposition

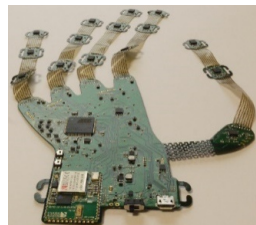
- ✓ Multiplex sensing using a six element array of biomarkers
- ✓ Incorporate combination of impedimetric, voltammetric and potentiometric sensing
- ✓ Saliva sample
- ✓ Quantitative and higher accuracy than existing tests



Hand rehabilitation at home
Assessment of treatment efficiency

Unique value proposition

Smart Glove



What it does

- ✓ Monitor the correct hand movement in a defined exercise
- ✓ Enable efficient hand rehabilitation practices at home

Benefits for users

- ✓ Accurate control of the hand movement
- ✓ Custom rehabilitation program and monitoring of process for adaption of therapy if required.

- ✓ Contains multiple strategically placed Wireless Inertial Measurement Units (WIMU's)
- ✓ Provides highly accurate 3-dimensional positional data for each finger joint and overall positioning of the hand.



Orthopedic therapy at home

Smart Knee



Unique value proposition

- ✓ Contains multiple strategically placed Wireless Inertial Measurement Units (WIMU's)
- ✓ Wireless data communication for better medical monitoring

What it does

- ✓ Provide real time wireless measurement of knee movement

Benefits for users

- ✓ Accurate tracking of patient progress
- ✓ Possibility of 'In-home' patient monitoring



Contact



Innovation as a Service for SMEs
Cost : 6,71 M€ - Max. Grant : 5,37 M€

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