

FIRST

FIRST TO IMAGINE. FIRST TO INVENT.



“CRM Devices and Telemonitoring:
Where the industry stands today”

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e-health is at the interface of the different healthcare stakeholders, for the benefit of the patient

Medical industry, big pharma labs

- clinical trials
- e-transmission of data
- remote medical check-ups

Medical industry

Insurance companies

- tele-transmission of health sheets
- preventive measures
- smart chips

Payers

e-health

Health professionals

Health professionals

- on-line appointments
- collaborative work
- telemedicine
- emergencies organisations

Hospitals & Clinics

- hospital for tomorrow
- geolocation
- digital medical files
- Electronic medical record (EMR)

Patients

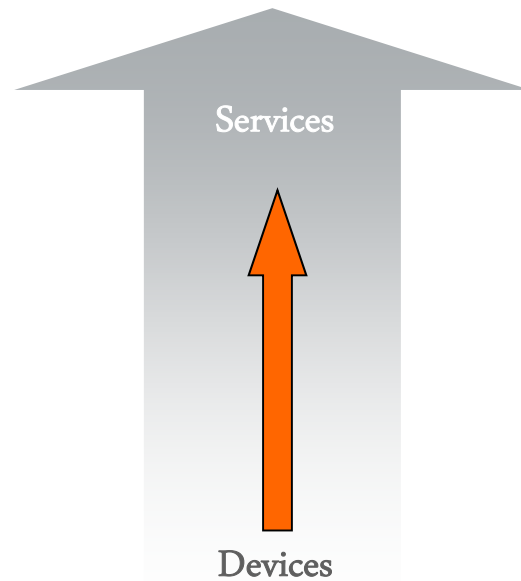
Assistance to patients

- tele-assistance (Alzheimer's disease, elderly..)
- remote diagnoses, follow-up of chronic disease

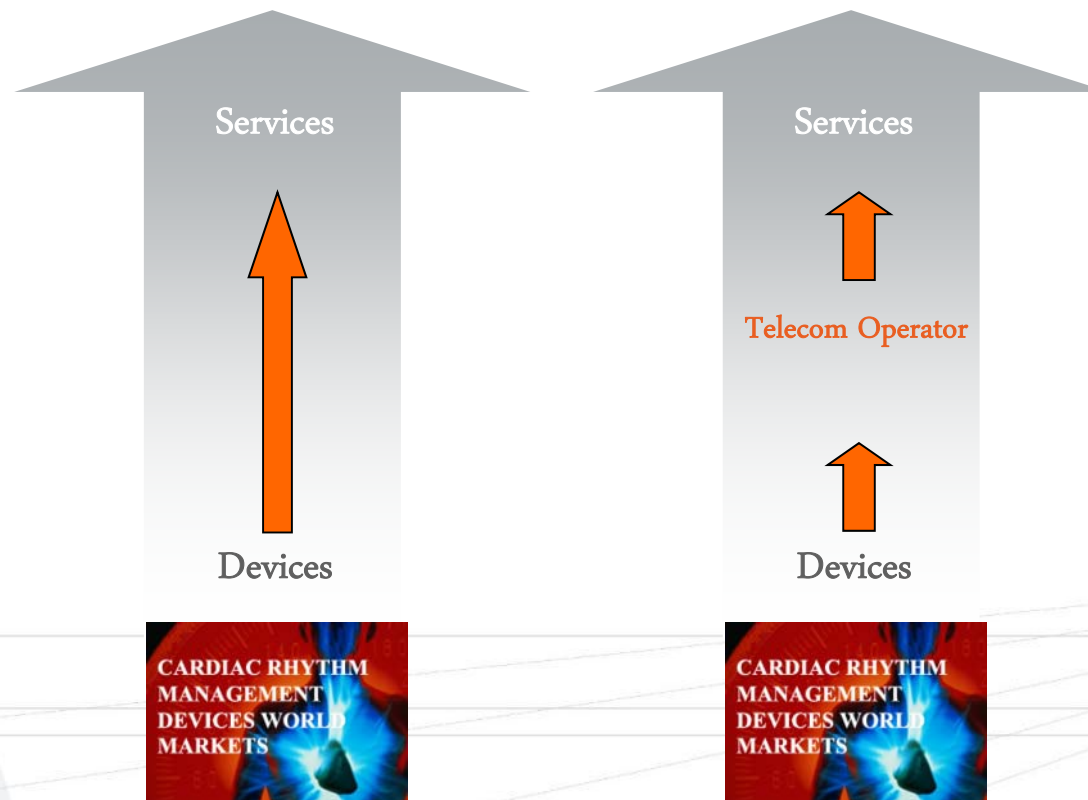
Home care

- home hospitalisation
- stay at home

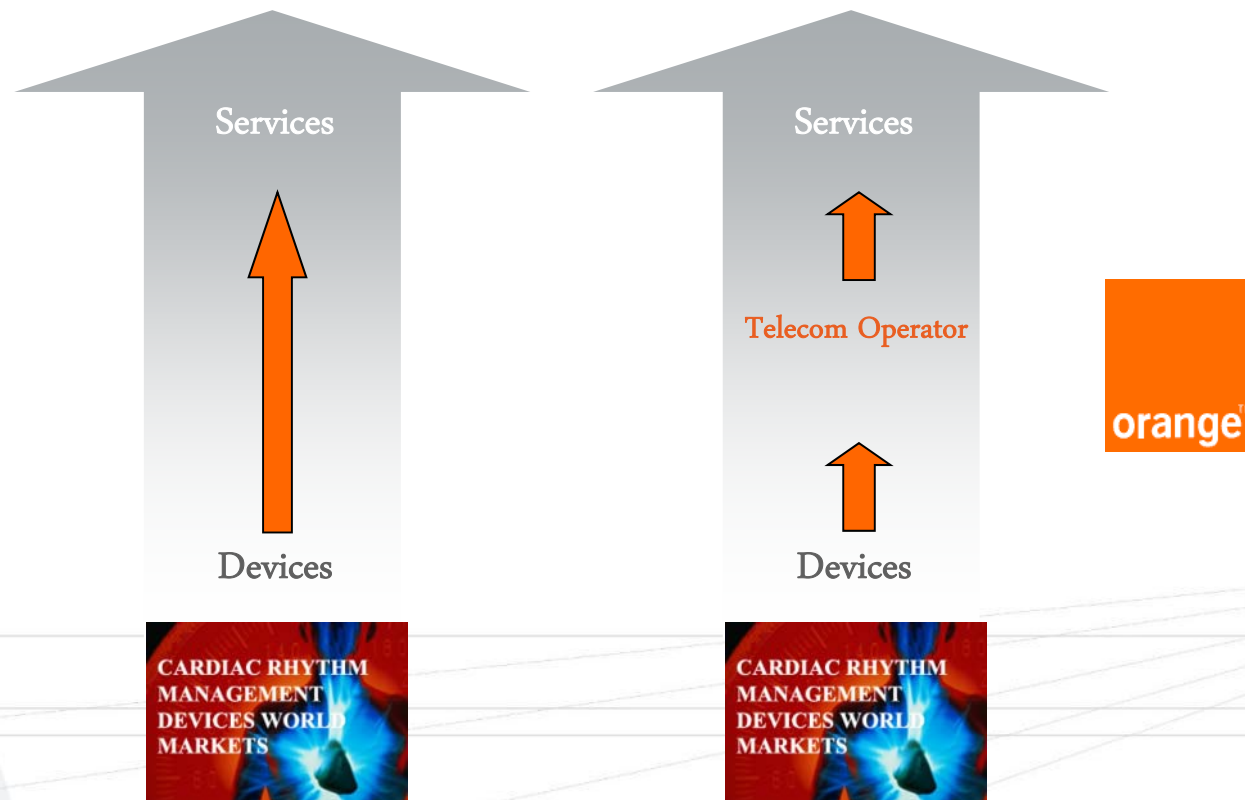
Sorin developed an e-Health vision



Sorin developed an e-Health vision

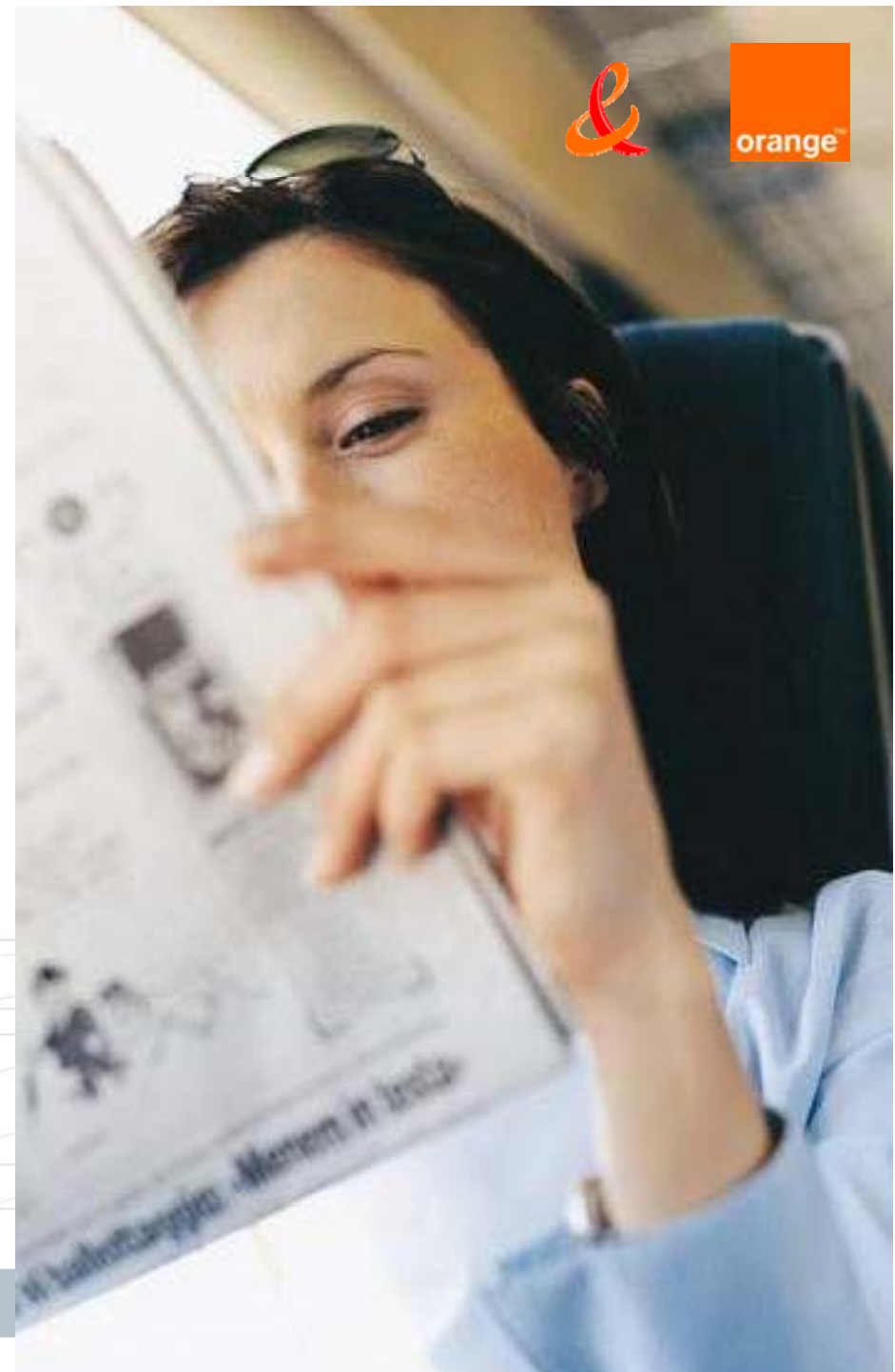


Sorin developed an e-Health vision

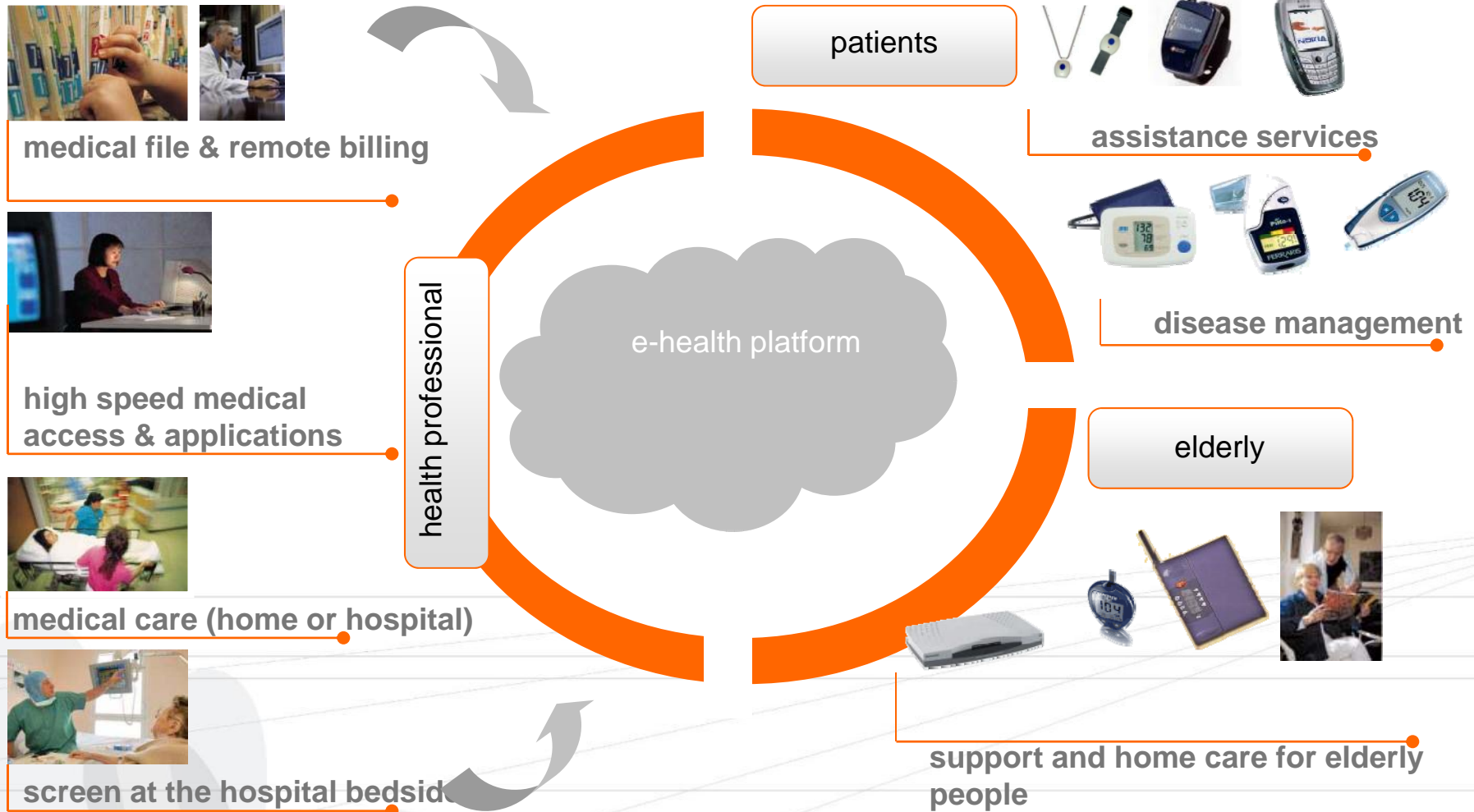


Sorin has chosen Orange

- France Telecom Orange provides mobile, internet, and fixed telecommunications services to 193 million customers in 32 countries.
- Orange has a global reach
 - seamless voice and **data network**, with local support in 166 countries and territories, mobile networks in 17 countries → the world's largest voice and data network
 - 132 million **mobile** customers → number three mobile operator
 - 13 million **ADSL broadband** customers in Europe → number two provider of Broadband internet services in Europe
 - 8 million business customers → world leader in telecommunications **services** for multinational companies under the Orange Business Services brand
- key facts
 - 4,200 R&D researchers



Sorin ... with Orange Healthcare portfolio of services



Sorin leverages e-Health solutions with Orange

Being an **integrated telecom operator** Orange is a key player for eHealth

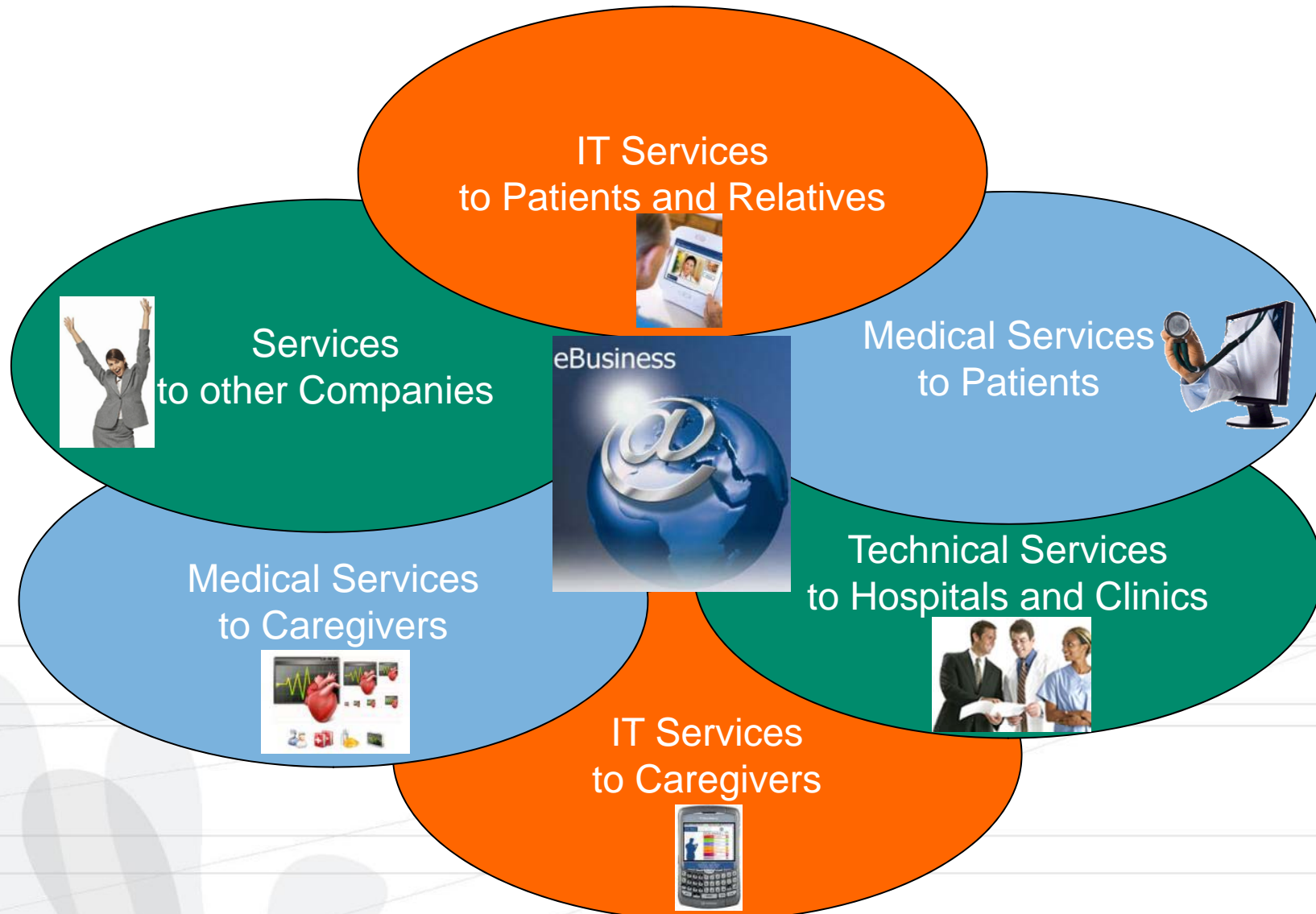
Orange has gathered a tremendous body of **experience in e-Health**

Orange aims to be the **e-Health European leader**

Healthcare market (in the US, in Europe) is **moving fast** and a big step is expected in 2010



e-Health will enable all sorts of services



Sorin's vision: from Devices... to Patient Management

VISION

- Leverage Sorin's expertise in treatment algorithm and data analysis intelligence → Remote Monitoring to enhance
- Alerts with increased clinical focus
- Patient management: Peace of mind
- Offer complete remote monitoring functionality allowing routine remote follow-up as well as data check on patient's health condition.
 - Close monitoring of patients health status
 - Extend sensor capabilities into the patient's home.
- Provide caregivers with a solution for a patient's disease management, supported by customized service based on modern technologies
- Launch Services & Solutions in line with SORIN e-Health vision

Devices and Remote Monitoring: Where does Sorin stand today ?

Alerts with increased clinical focus

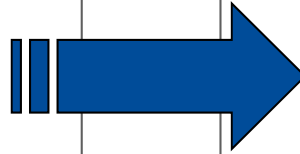
TODAY

Technical Alerts

- Impedance (brady and tachy)
- Battery status
- Other devices issues (e.g. long charge time)

Alerts based on already existing diagnostic information

- Atrial Arrhythmia
- Detection and treatment of Ventricular Tachycardia
- CRT delivery



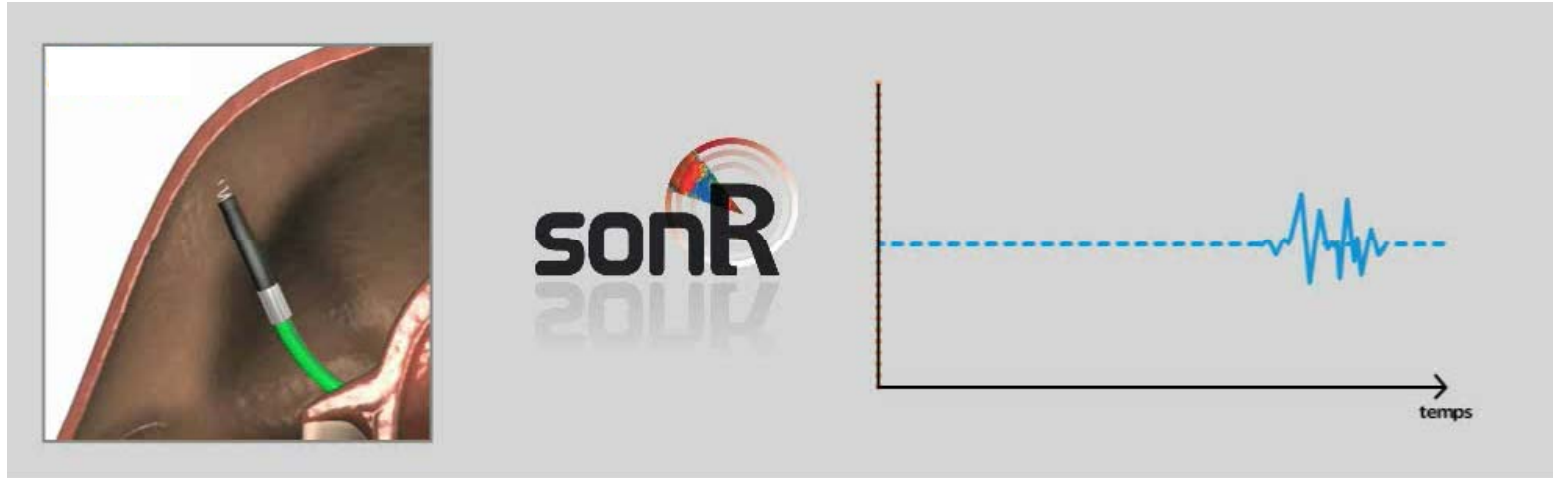
SHORT TERM FUTURE

Sorin focus on Monitoring of heart failure

Sorin alerts will leverage combination of existing sensors:

- Minute ventilation
- Acceleration (exercise)
- Contractibility
- All information on cardiac rhythm
- Reconstructed surface ECG

Sorin SonR: Hemodynamic CRT Optimisation

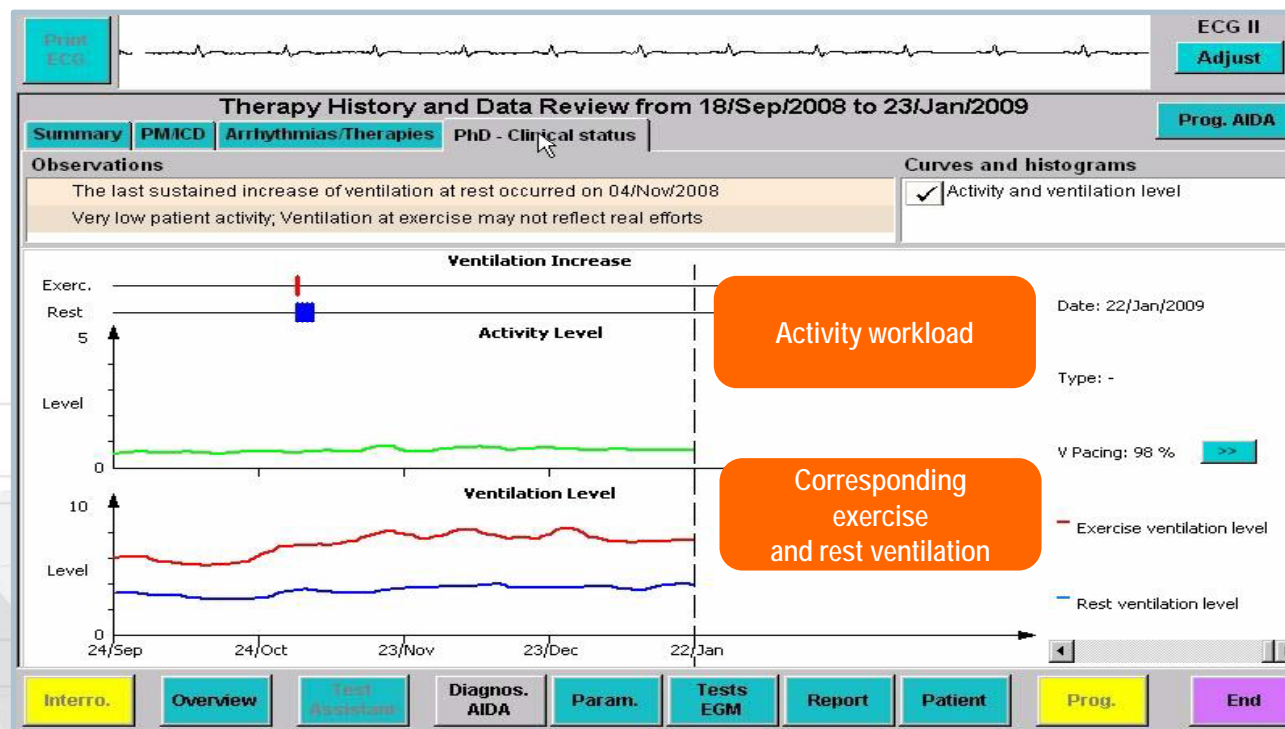


- sonR Embedded lead sensor measuring heart sound
- Optimisation of VV & AV delays to maximize LV contractility and filling
- operates fully automatically at rest and exercise, during daily patients activity
- Runs through cardiac remodeling: VV & AV delays periodically re-adjusted

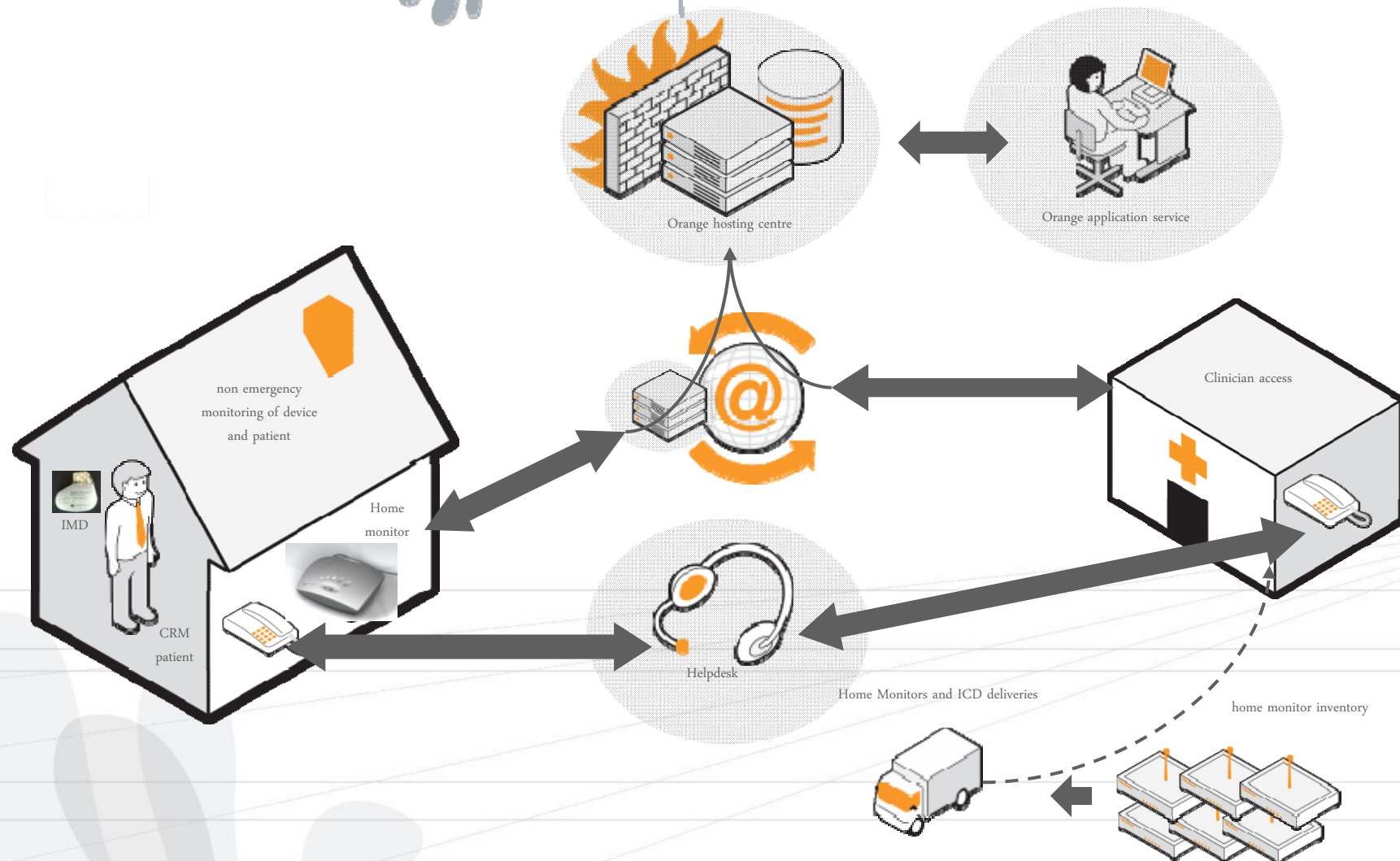
Sorin PhD: Patient status evolution at a glance



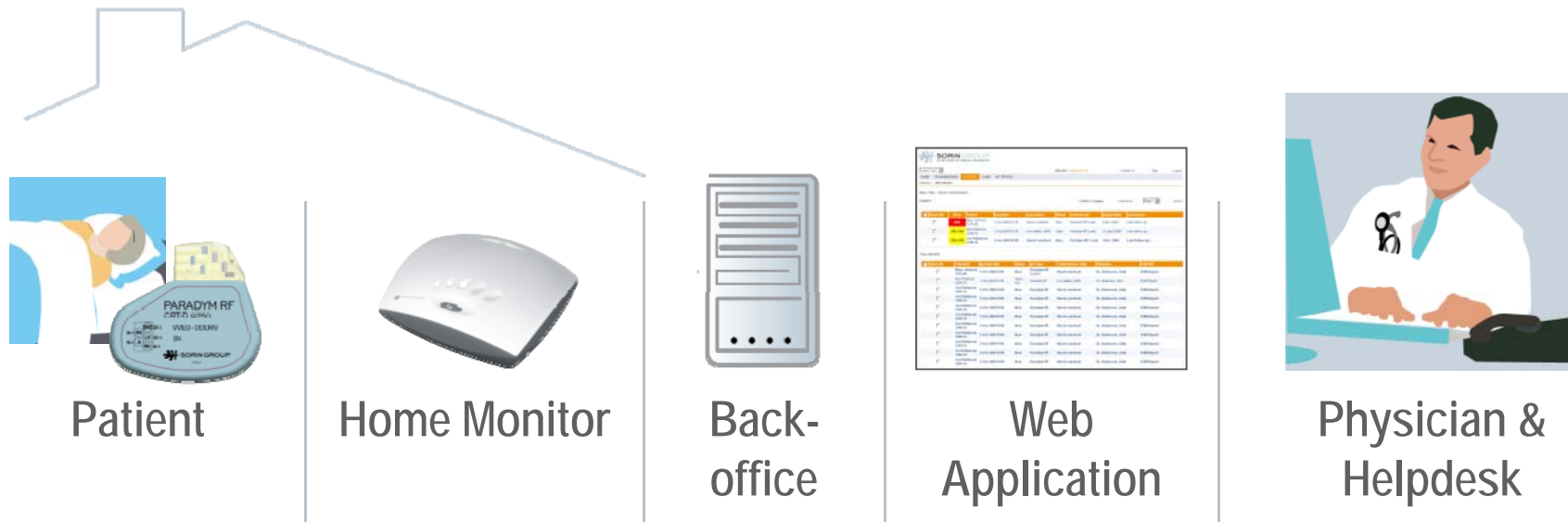
- PhD quantitatively tracks
 - activity workload
 - ventilation at rest and during exercise
- PhD flags significant evolutions over 6 months periods



Sorin remote monitoring: a global solution



Sorin remote monitoring: an end-to-end solution



Physician
Configures
System

Home Monitor
Collects Data
From Device

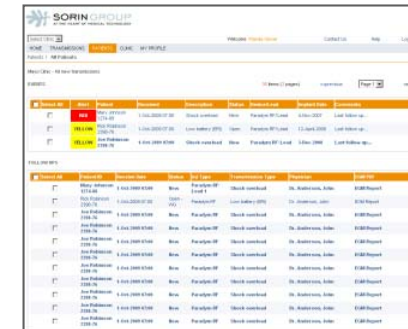
Home Monitor
Sends Data to
Back-office

Back-office
Produces Clinical
Report

Physician
Evaluates Clinical
Report and Treats
Patient

Sorin Group Remote Monitoring

From device to patient management



SESSION START

- Routine Follow-up
- Device Alerts
- Clinical events



DATA SENT

- Patient information
- Battery status
- Lead status
- EGMs
- Arrhythmia Episodes
- Cardiac statistics



USER INTERFACE

- Secure Access
- Clinic management
- All patients list
- New transmissions
- Follow-up schedule

Nov 25th, 2009

Honored for their work
in applying Machine-to-Machine
and e-Health technologies
to improve patients' quality of life

Orange Business Services and
Sorin Group
awarded Best Change-Maker
for Innovations in
Remote Health Monitoring and
Telemedicine



Best Change-Maker

Orange Business Services/Sorin Group - Winner



**Business
Services**



World Communication Award 2009

<http://www.worldcommsawards.com/>
<http://www.totaltele.com/show.aspx?i=875>



- The World Communication Awards is an annual event, which is the reference in the telecommunications world.
- Delivered by the WCA, the Best “Change-Maker” award is the telecommunication industry’s most prestigious prize for monumental business achievements. It is a recognition of the best innovation of the year.
- This award is an extraordinary recognition of the unique strength resulting from SORIN and ORANGE partnership. It demonstrates the value of the full integration between medical devices and machine to machine telecommunications expertise.
- Customers and cardiac patients can trust SORIN commitment to providing innovative and robust remote monitoring solutions

What enabled winning the “best change-maker” award ?

Sorin's intelligent algorithms
streamline proper diagnoses
and rapid medical decisions

Sorin Algorithms

Sorin
strengths
in Remote
Monitoring

Sorin

User Interface

Sorin's user-friendly
and easy-to-access data
to the physicians

Sorin

Service

Orange's applications development,
systems integration support,
and data management expertise
TechTeam helpdesk solutions
deliver peace of mind
to the physicians and their patients

Sorin Service with the most advanced Technology

operational
excellence



**Business
Services**

Infrastructure

- Network
- Telephony
- Hosting

Transmissions

- Internet Dial
- Internet Direct
- Security

Back Office

- Speed
- Reliability
- Uptime

Application

- Function
- Maintenance

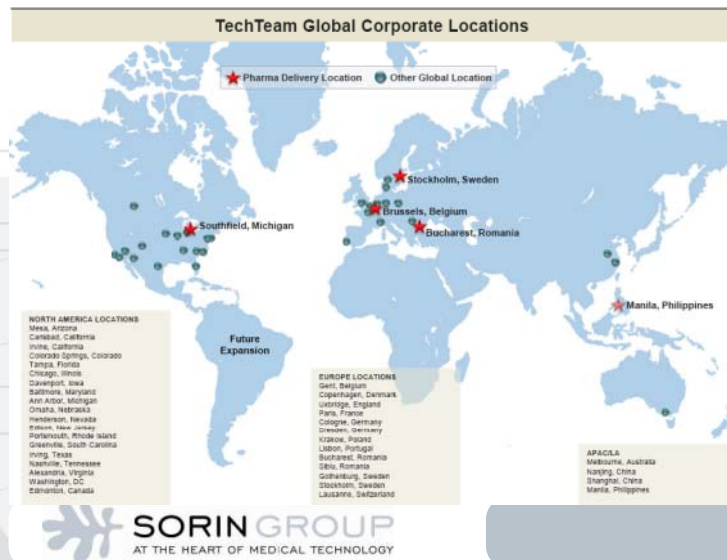
Archive

- Backup
- Data Recovery

Sorin Service with professional support to the users

service desk excellence

#1 globally
in HelpDesk Outsourcing (2009)



**EXECUTION
EXCELLENCE**

**AGILE AND
RESPONSIVE**

**DEEP
EXPERTISE**

**MEDICAL
EXPERIENCE**

**eClinical support
Increased User satisfaction**

Sorin remote monitoring... ...Service excellence



with your Sorin Sales Rep



*during Remote
Follow-Ups...*



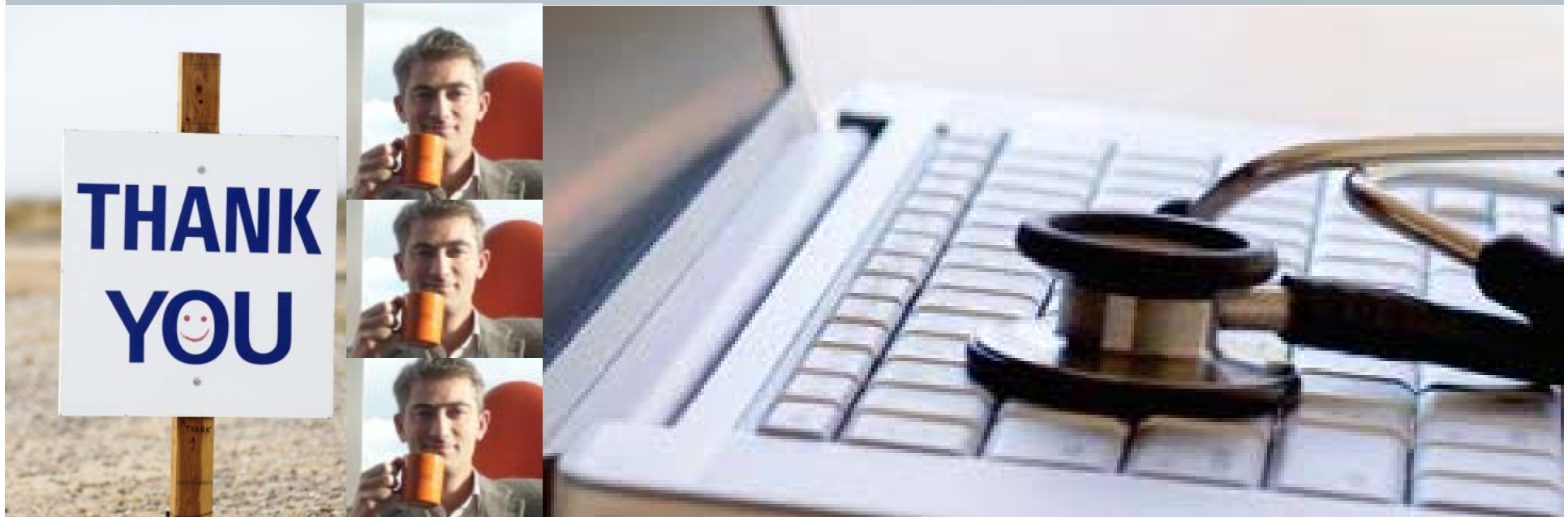
*... and when analysing
your Data*

peace of mind



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