Delivering innovation that matters to you

Eureka Innovation Days – Smart Health Panel

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May 23, 2018

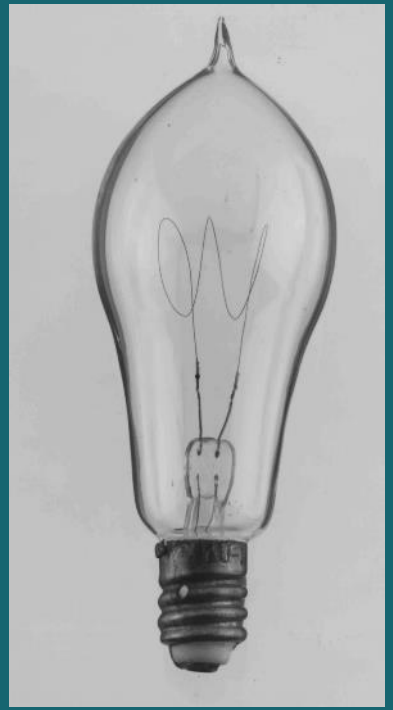
innovation + you

PHILIPS

Contents

- Introduction to Philips
- Profound Changes in Healthcare
- Need for Public-Private Partnerships

127 years of innovation: from light bulb to HealthTech



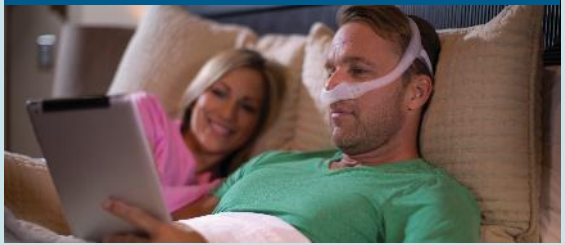
1900 – Carbon-filament lamp

1930 – Mobile metalix X-ray

2017 – Image Guided Therapy suite

2017 – Sonicare Connected

Our businesses in 2017[1]

Personal Health businesses	Diagnosis & Treatment businesses	Connected Care & Health Informatics businesses
		
41% of Group sales	**39%** of Group sales	**18%** of Group sales
16.7% Adjusted EBITA margin	**10.4%** Adjusted EBITA margin	**11.8%** Adjusted EBITA margin

Sales of EUR 17.8 billion and Adjusted EBITA margin of 12.1%

1 Other accounts for 2% of sales and includes HealthTech Other

Royal Philips in 2017

EUR 17.8
billion sales

More than 1/4
of sales from solutions

4%
comparable sales growth

~74,000
employees in over 100 countries

Royal Philips in 2017

2.2 billion
lives improved[1]

EUR 1.76 billion
invested in R&D

62,000
patent rights

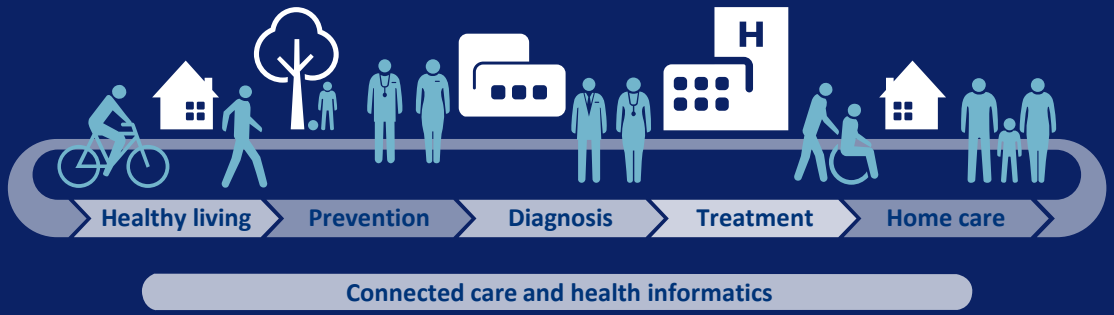
37,600
trademarks

USD 11.5 billion
brand value[2]

1 Includes contribution of Philips Lighting
2 As measured by Interbrand

Ready to take on the healthcare challenge

At Philips, we take a holistic view of people's health journeys, starting with healthy living and prevention, precision diagnosis and personalized treatment, through to care in the home – where the cycle to healthy living begins again.

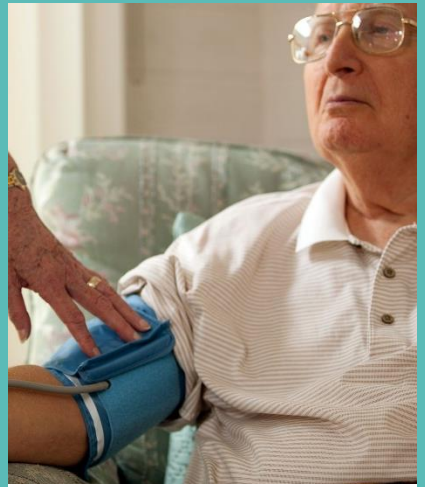


Contents

- Introduction to Philips
- Profound Changes in Healthcare
- Need for Public-Private Partnerships

Four major trends are shaping the future of health technology

Global resource constraints



Aging populations and the rise of chronic illnesses

Increasing consumer engagement

Digitalization

5% of the population accounts for **50%** of healthcare spend

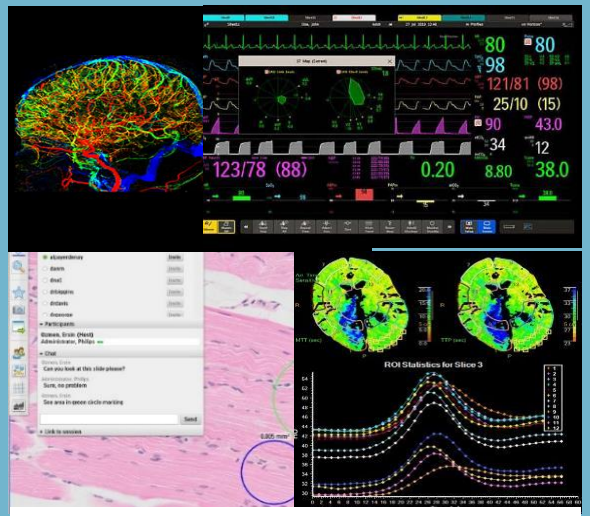
Economic realities are driving the need for new approaches in healthcare

Volume	Value
Response	Prevention
Episodic	Continuous
Limited	Accessible

Key Trend: the Data Explosion in Healthcare

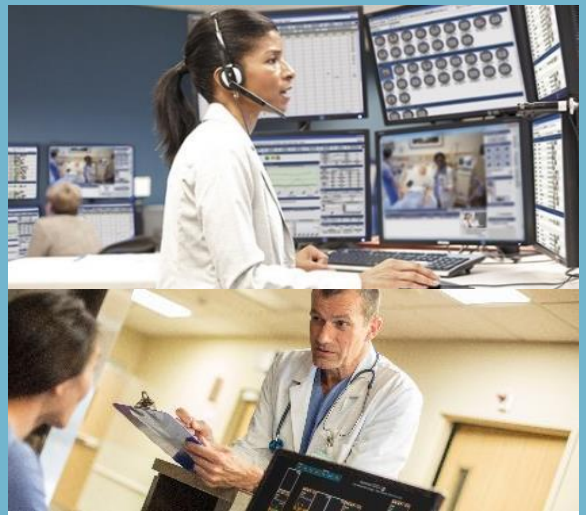
Dense data

Pattern recognition in aggregated data sets – across a population



Deep data

From anatomy to cells and molecules



Wide (longitudinal) data

Continuous monitoring over time

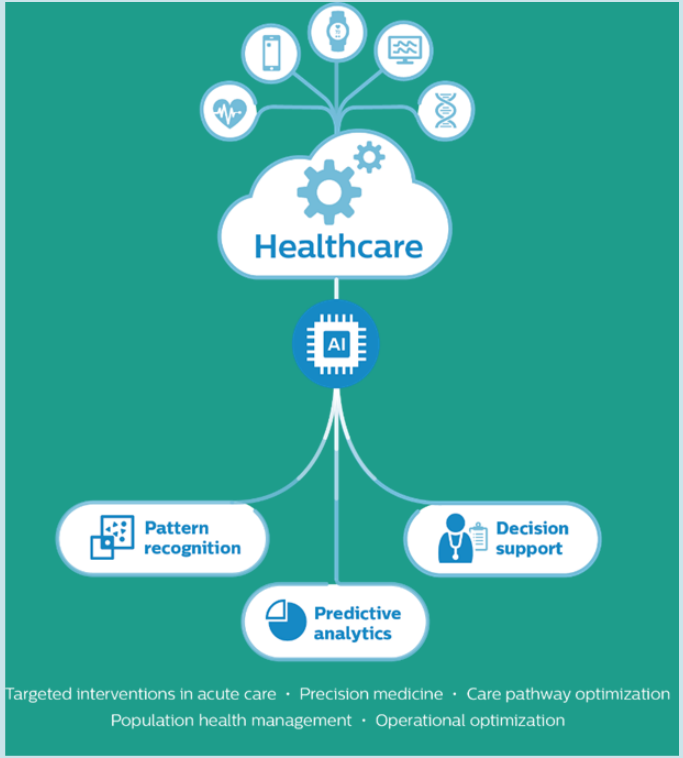
AI & Data Science will be a key enabler for Care Everywhere

Precision medicine and personalized treatment enabled by smart algorithms

Transition to value-based care through analytics and pathway optimization

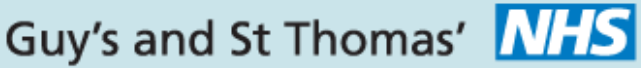
Digital Platforms for **data-driven solutions** across the care continuum

Networked care patient engagement & coaching via portals & apps



Discovering unmet needs and validating solutions together with clinical and technology partners

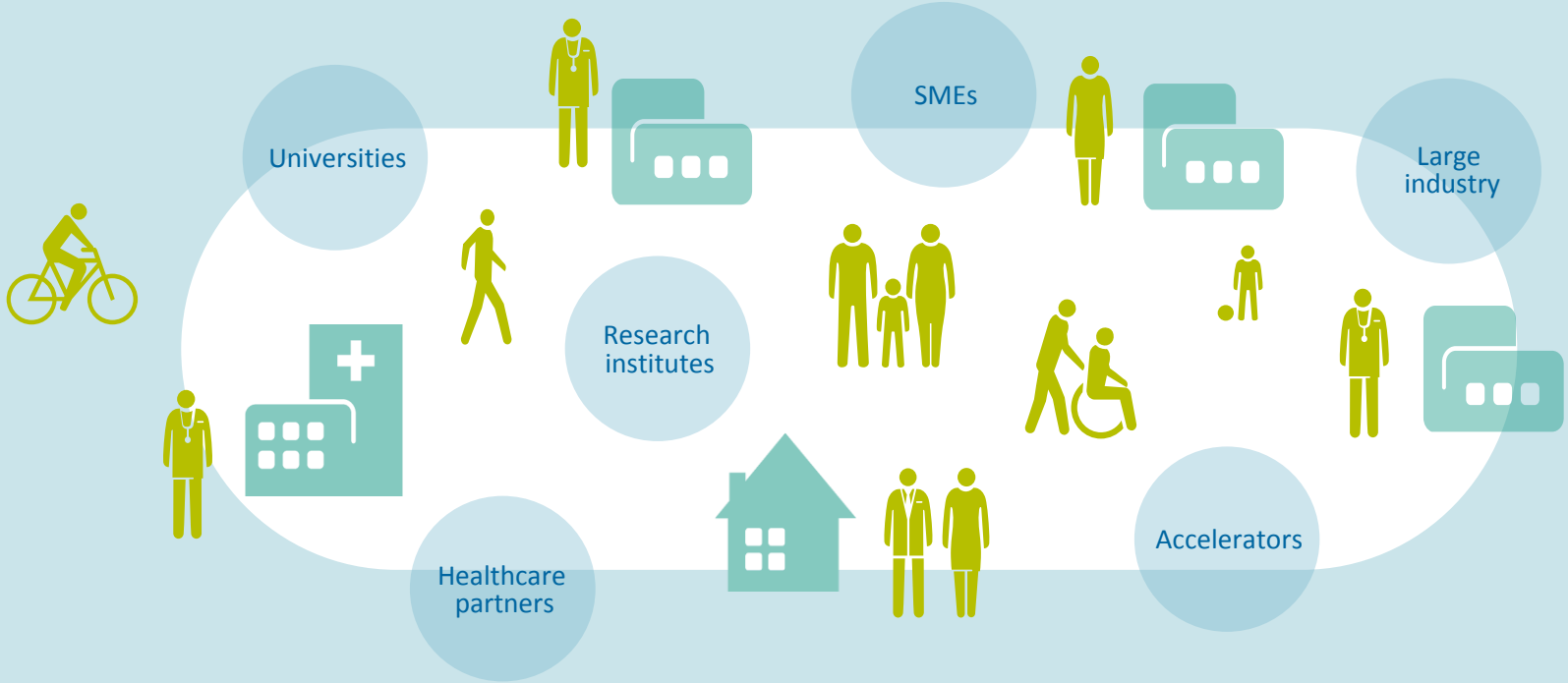
UMC Utrecht



Contents

- Introduction to Philips
- Profound Changes in Healthcare
- Need for Public-Private Partnerships

For Philips, the future of innovation is collaboration: in ecosystems and on open platforms



However, especially for Europe there is a challenge to stay competitive….

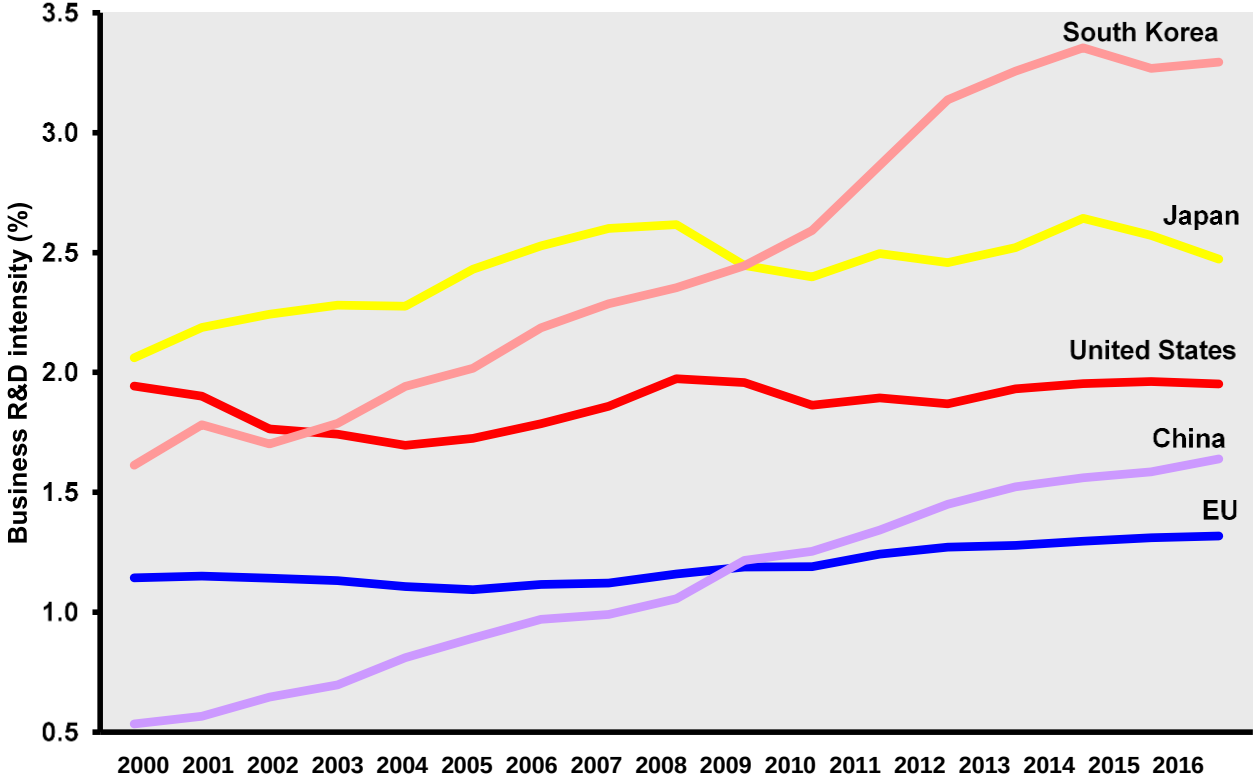
Europe needs a better uptake of R&I

Overall, Europe is a global research powerhouse. With only seven per cent of the world's population, it is responsible for 20% of the global investment in R&D and about one third of all high-quality scientific publications. Yet, Europe faces difficulties in transforming its scientific leadership into the breakthrough and disruptive innovations that are necessary at scale to address these challenges and that create new markets and redefine whole industries. Europe suffers from insufficient uptake of R&I. We are struggling to support the creation and scale up of the new technological champions of the 21st century.

Source: EU Presidency note on ''Research and Innovation within the context of the next Multiannual Financial Framework'' May 7, 2018

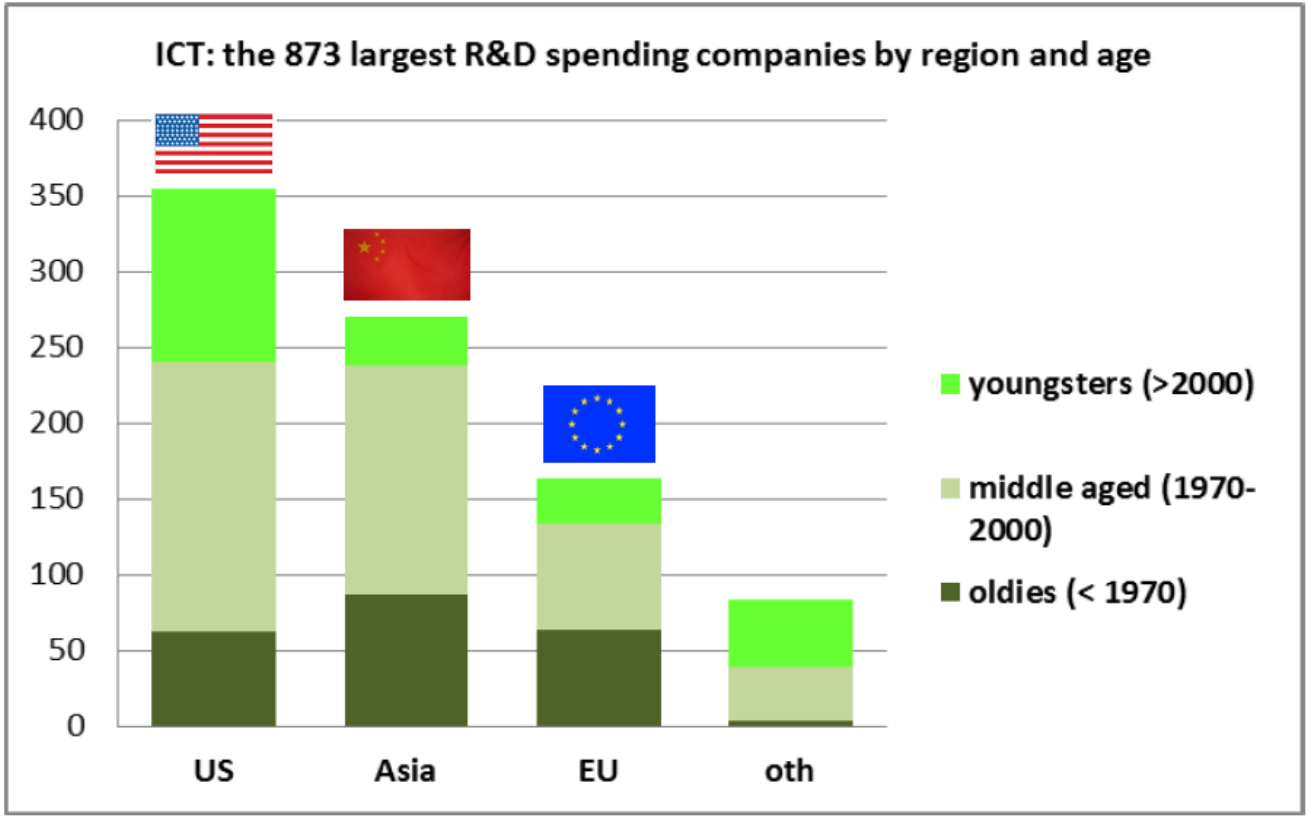
EU companies spend less on Research and Development than their competitors

Evolution of business R&D intensity, 2000-2016



Source: European Commission DG Research and Innovation. Data: Eurostat, OECD

In ICT, the EU companies are fewer and older than in US and Asia



Source: JRC-IPTS-R&D Scoreboard of the 2500 largest R&D spenders globally (2015); the year is 2013. Quoted in Veugelers, 2016

Both EU (new Horizon Europe) and EUREKA can help address this issue with the right priority setting. EUREKA has certain advantages (1)

EUREKA-Clusters	EU-Instruments
At least bi-national	At least tri-national
Flexible in the addressed thematic area (Bottom-up approach)	Clearly defined topics
Thematically relevant co-operations bi- and multi-national	European strategies, big missions
More influence of involved member countries	Consideration of all member states
Flexible configuration based on national guidelines	Complex EU-wide alignment

Source: Report on a German Industry Hearing concerning EUREKA Clusters (Oct. 2017)

Both EU (new Horizon Europe) and EUREKA can help address this issue with the right priority setting. EUREKA has certain advantages (2)

EUREKA-Clusters	EU-Instruments
Active involvement & direct support of SME	SMEs are discouraged by the complexity
Detailed feedback from the evaluators => increase quality & success rates	Little to no specific feedback from the evaluators; „fire and forget“
Evaluators are typically from industry => market trends taken account	Evaluators come mainly from academia => danger of missing crucial trends
Acceptable funding opportunities => motivation to participate	Very high oversubscription
Targeted funding of strategically sound and best quality project ideas	Targeted funding is rather rare

Source: Report on a German Industry Hearing concerning EUREKA Clusters (Oct. 2017)

30+ years of fruitful Philips participation in EUREKA

- Among first four companies supporting 1985 launch of EUREKA
- Probably #1 participant
- Involved in 50+ past initiatives, e.g. HDTV, DAB, JESSI, MEDEA, CATRENE
- Currently engaged in 2 ICT clusters:
  - PENTA 2016-2020 micro/nano-electronics
  - ITEA3 2014-2021 software-intensive systems & services

Example Medusa*: 1st project working on cloud based innovation

PROJECT CONSORTIUM **START DATE** JANUARY 2013 **END DATE** DECEMBER 2015

Netherlands

PHILIPS

amc

sopheon

Technolution
AUTOMATION TECHNOLOGY

France

BULL

DOSI soft

CASSIDIAN CYBERSECURITY

imstar

INSTITUT Mines-Télécom

Institut de cancérologie GUSTAVE ROUSSY

Prologue.

*Medical Distributed Utilization of Services & Applications medusa

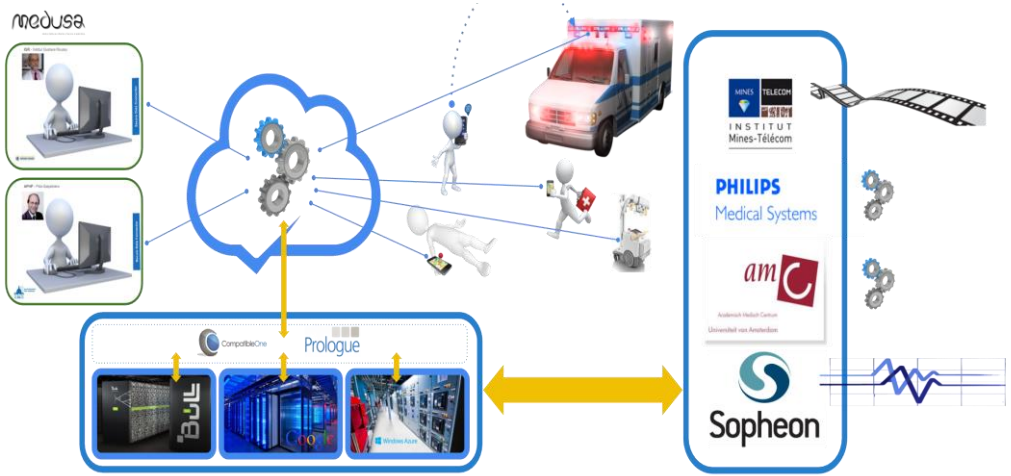
EUREKA

ITEA 3

Example Medusa project: start of driving digital transformation in healthcare

Goal: improve efficiency and effectiveness in critical situations

Means: cloud based sharing of medical images and expertise



Partnering key to success:

- Innovating Philips' platform to support use cases from Amsterdam Medical Center (AMC) in stroke & trauma
- Integrating fast decision support know-how from Sopheon (SME)
- Integrating secure cloud management know-how from Prologue and Atos-Bull
- Continuing with 5 countries & 19 partners, Medolution: sensor data integration, real-time decision support

Benefits:

- Reduce time to first response
- Secure and fast huge image processing and exchange
- Fast collaborative distributed decision making
- Est. annual saving for society >€60M million (Europe)
- ***ITEA provides such opportunities: already in 2010 bottom-up discussions how to engage in this area!***

EUREKA ITEA 3

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