Sensing•Health

Posture recognition AND MORE!

13 Diciembre UPC Terrassa


Sensing·Tex

Mission Statement

Sensing Tex helps companies successfully deliver innovative **Stretchable Printed Electronics**, to make IoT solutions

Sensing·Tex

- **Development**, **Production** and **Commercialization** of Smart Textiles based on Printed Electronics
- Focussed on **Large Area Pressure Sensor Textiles**
- With our **proprietary Patented Technology** we functionalize the Textiles to feel pressure with multi-contact behaviour. This allows us to monitor **Pressure Mapping**

Sensing Mat

Pressure Maps Raw Data to Data Analytics – Big Data

Sensing Mat

Biosignals Tracking

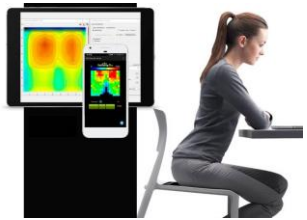
Postural Detection

Movement Analysis

Sensing Mat Platform

Bedding Platform

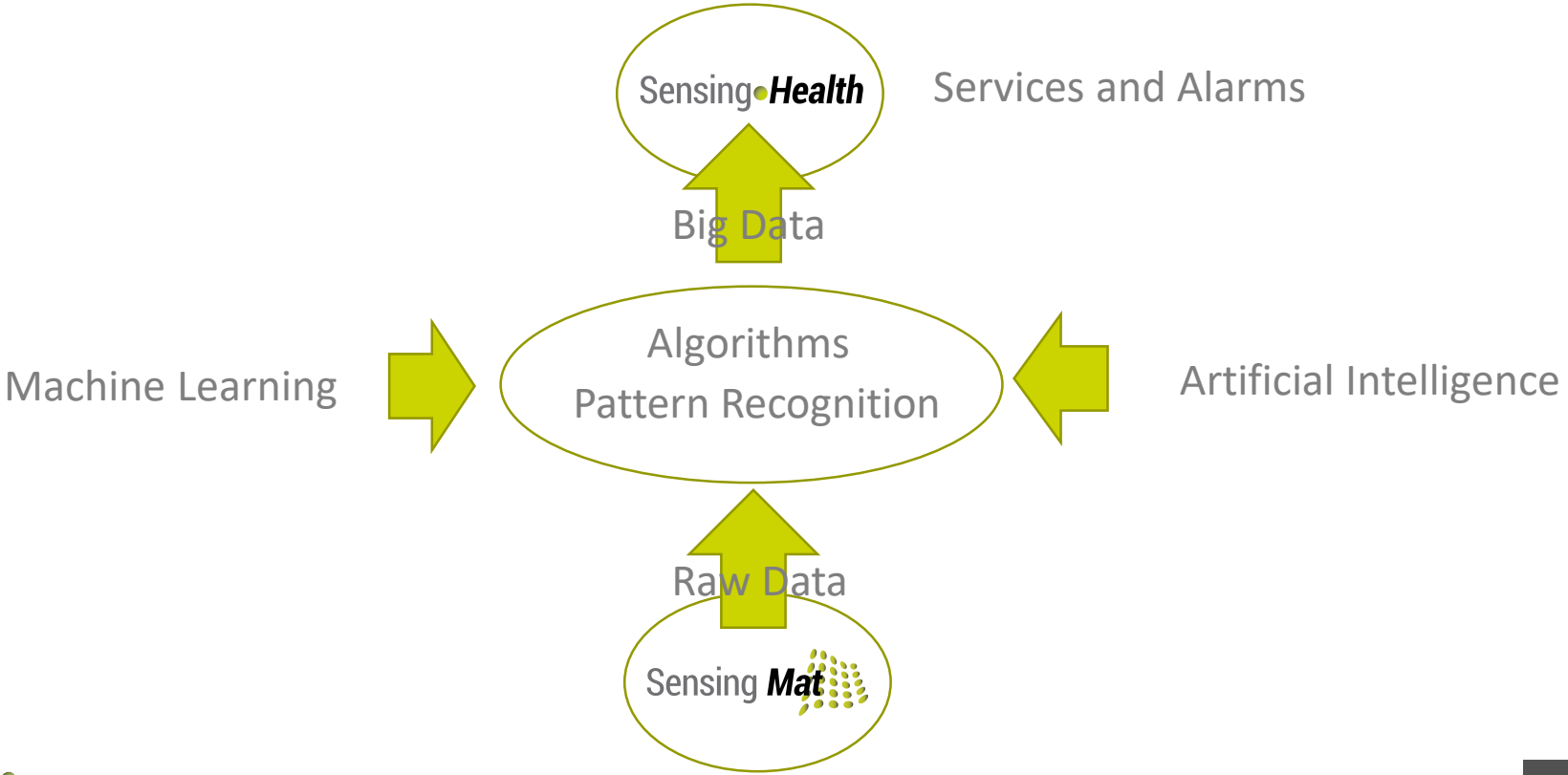
Seating Platform



Flooring Platform

Business Model from the Brands

From Data Analytics to Services



Sensing•Health

Medical Textile Market

Medical Textiles Market Size Worth $23.3 Billion By 2025 | CAGR: 4.9%

Global Healthcare Fabrics Market Will Reach USD 15.7 Billion By 2025: Zion Market Research

The Global Medical Smart Textile Market is expected to register a CAGR of 7,51% to reach 2,105.32 Million by 2027.

https://www.grandviewresearch.com/press-release/global-medical-textiles-market

https://www.globenewswire.com/news-release/2019/03/14/1752927/0/en/Global-Healthcare-Fabrics-Market-Will-Reach-USD-15-7-Billion-By-2025-Zion-Market-Research.html

https://www.marketresearchfuture.com/reports/medical-smart-textile-market-1123

Pressure & Falls Injuries are a High Cost for a Health System

Pressure injuries cost the US healthcare system an estimated **$9.1-$11.6 billion** annually [1]

Fall Injuries cost to the UK NHS an estimated **£630 million** annually 2016 [2]

1 according to the **Agency for Healthcare Research & Quality (AHRQ) 2016**
2 according the report **The incidence and costs of inpatient falls in hospitals NHS July2017**

Pressure Ulcers – The Reality in EU

4M PEOPLE in EU

COST 70,000€/ YEAR

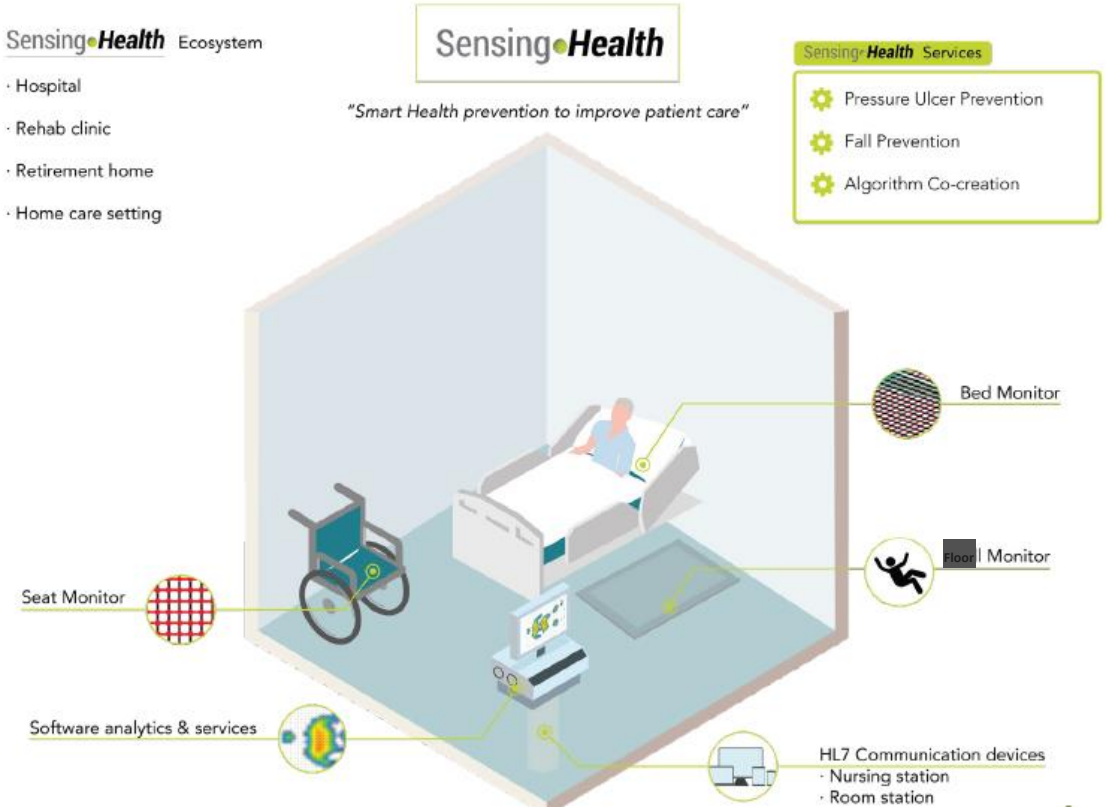
Sensing Health reduces Pressure and Fall Injuries

Our ***Sensing Health*** by Sensing Mat Platform is a continuous monitoring **Product and Service** across the ***Care Continuum*** that provides early detection to help lower risk and improve patient care while reducing costs

Sensing Health has been designed to address two major group of services that your facility faces every day: **Fall Prevention and Pressure Ulcer Prevention**. The system has an easy-to-use interface and clinical flexibility that allows the system to be integrated into your unique care setting.

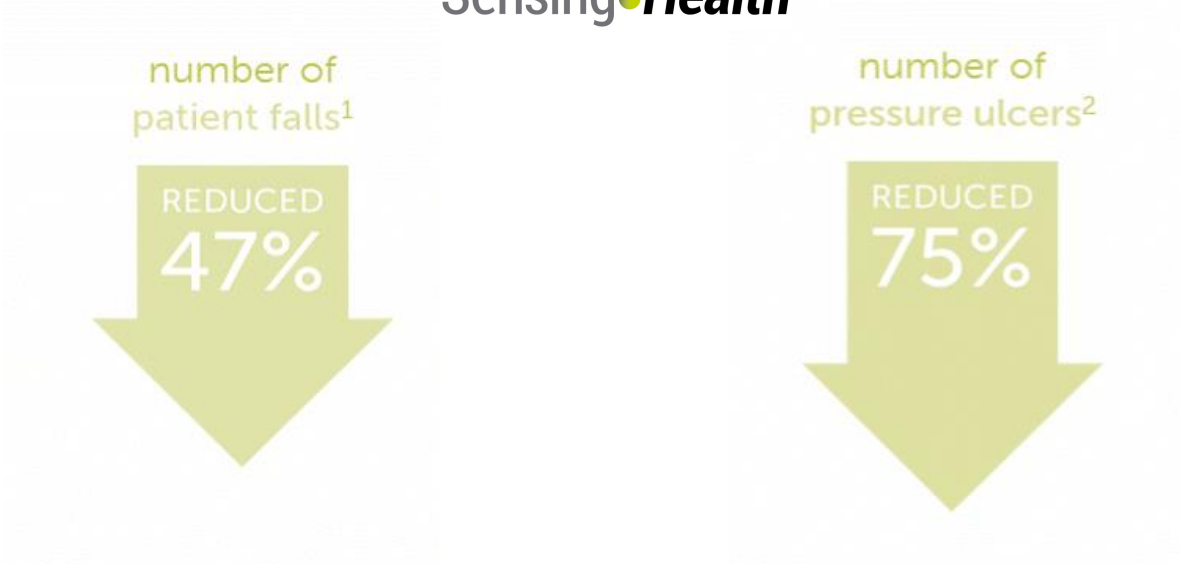
Sensing•Health

Sensing Health InfoGraphy



Benefits for the Health Care System

Sensing•Health



[1] A Cost-Effectiveness Analysis of a Proposed National Falls Prevention Programme
Clinics in Geriatric Medicine · November 2010

[2] Staff's perceptions of a pressure mapping system to prevent pressure injuries in a hospital ward: A qualitative study
Journal of Nursing Management, 26(2), 140-147, 2018

Sensing Health Services v.1.0 Bed Monitor 1.0

PUP Services

Pressure Ulcer Prevention Services

REPOSITIONING ALARM

FP Services

Fall Prevention Services

FALL ALARM

CC Services

Co-Creation New Services

BIG DATA
BIOSIGNALS REPORTS
SLEEP REPORTS
WANDER PREVENTION
EXERCISE REPORTS
EPILEPSIA ATTACKS DETECTION

Product Hardware Components Bed Monitor 1.0

Overall Area
900 x 2000 mm

Sensing Area
825 x 1800 mm

Sensor Elements
1056

Mattress Cover

Bluetooth 2.0

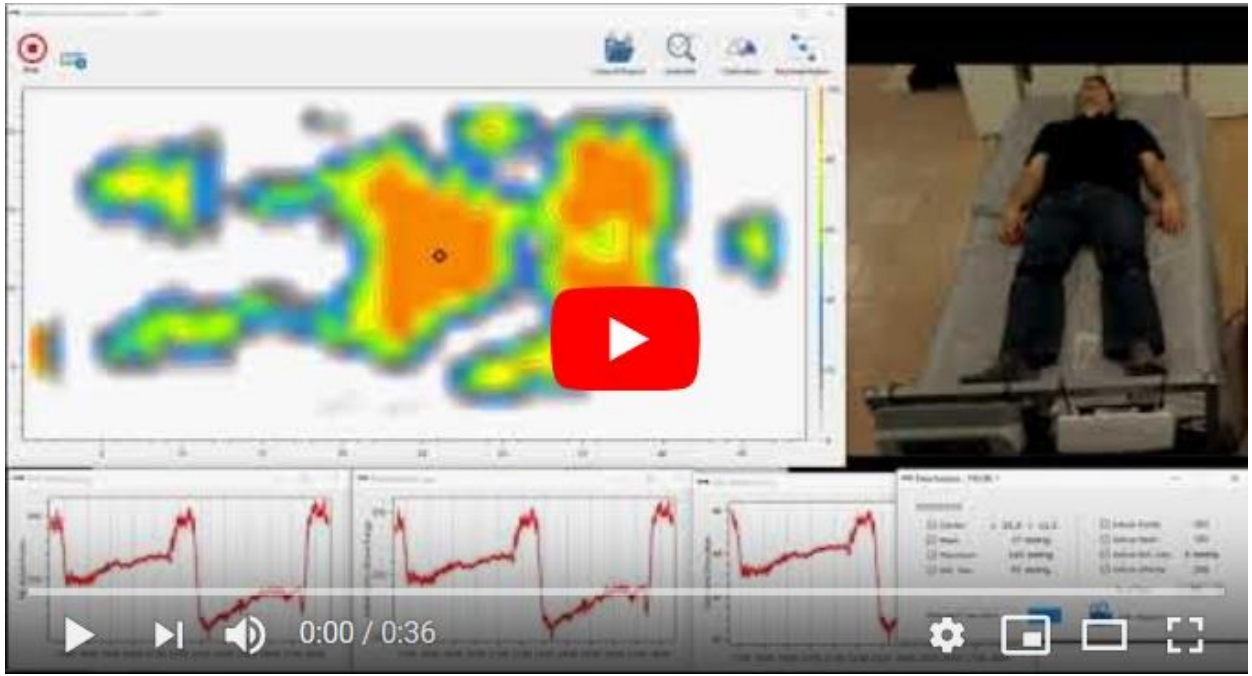
USB 2.0
24/7

USB Powered

Electronic Module
90x47x17 mm

CE

Data Analytics Demo Alternating Inflation Mattress

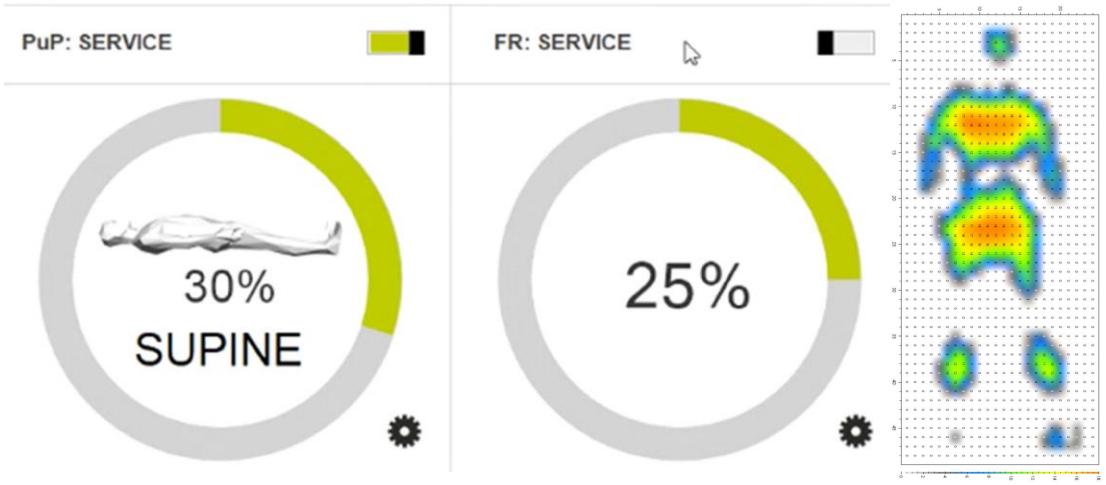


Software Sensing Health v1.0 – App Services

Customization and Integration to Hospital Information Systems

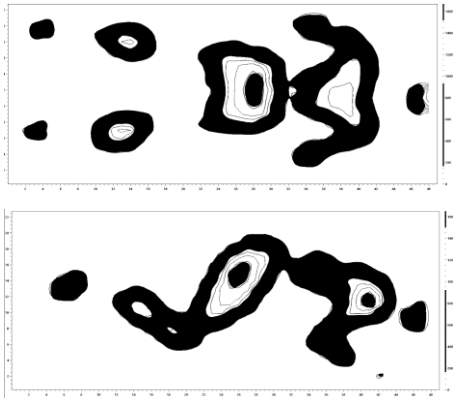
HL7 and Cloud Services

Based on APIs



Our Current CV Vision, Machine Learning and AI

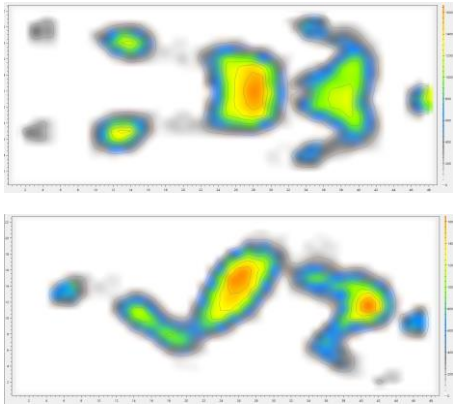
Shape Analysis



Position Analysis	Lying Positions	Machine Learning
Spatial Statistical #	CoS/CoP, Contact Area, etc	Computer Vision

Our CV, Machine Learning and AI in Progress

Pressure / Gradient Analysis



Pressure Gradient	Bone Area Detection	Machine Learning & Computer Vision
Pressure Gradient	Biosignals	Computer Vision
Pressure Statistical #	Gradient – Average	Computer Vision

What's Next? AI & New Services

Sensing Health is a complete set of services that improves quality of life and care resources for low mobility and bedridden patients and care systems respectively based on the latest algorithms developed thanks to the **Big Data** provided by our low cost single sensor pressure mapping system and using latest **IT technology of Computer Vision, machine learning and AI**

Computer Vision

Machine Learning

Artifitial Intelligence

Thank You!

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