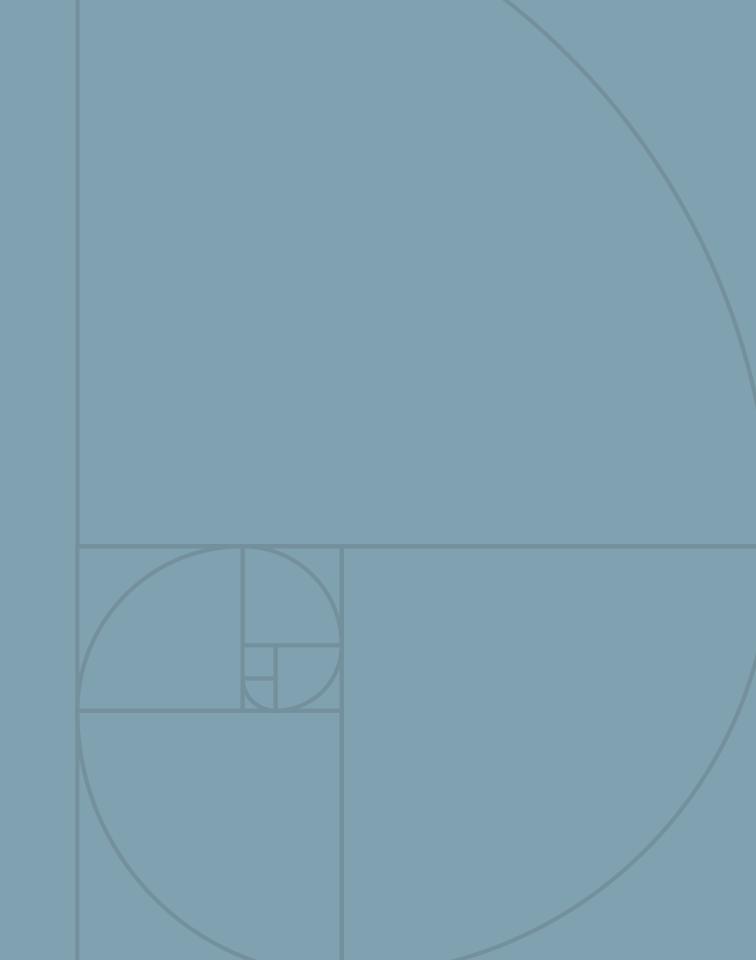


PEOPLE
IDEAS
TECHNOLOGY

Digital Company Profile





# SENSORS, APPLIED

#### 221e MEANS INFINITY, BECAUSE ENDLESS IS THE BOUNDARY OF IMAGINATION AND SO OF INNOVATION

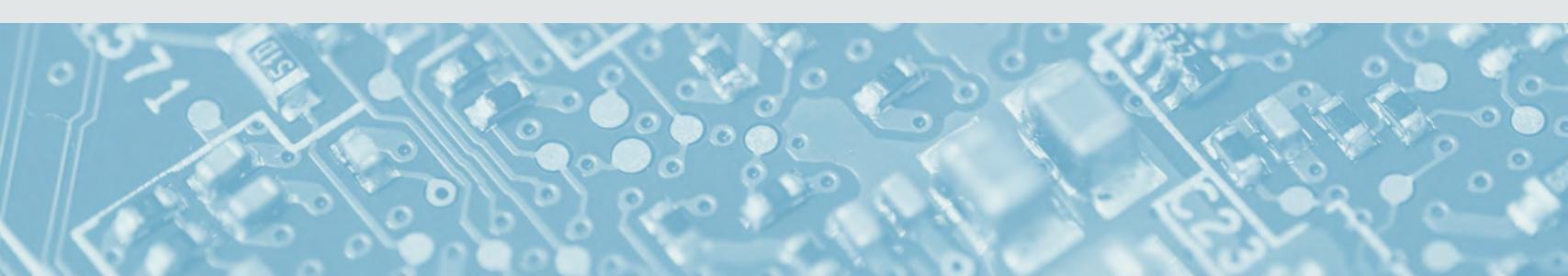
It takes the imagination of dreamers, the creativity of passionate minds and the experience of pioneers to change established rules and extend the boundaries of what is possible.

We surf the wave of **IoT** and **wearable systems**, merging advanced hardware designs with intelligent software architectures driven by an approach devoted to continuous **improvement**, solid engineering skills, curiosity and **passion** towards data and its science.

We embrace **diversification as opportunity**, pushing the company to new challenges and expanding business in different industries.

Our technologies are pervasively suitable to a wide range of applications.

We have a clear mission: the research, development and production of electronic systems **embedded with proprietary algorithms** to collect, elaborate and return **clear data ready to be used**.



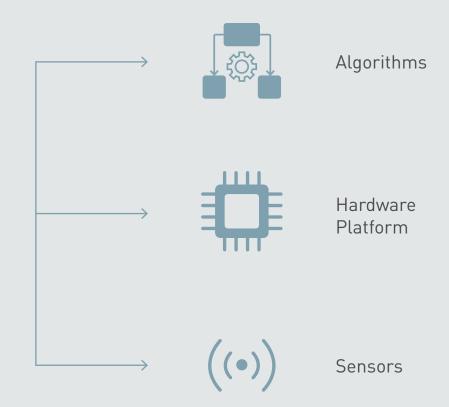


# WE BUILD INTELLIGENT THINGS

Data is value: the foundation of intelligent systems, thus it has to be properly turned into useful, secure and sustainable information.

Our embedded systems' **added value** is the **technology** at their core, that allows to measure, process and communicate any data to meet the application requirements.

INTELLIGENT SYSTEMS





# IOT

#### MARKET SNAPSHOTS

With each passing day, the amount of data generated worldwide is **increasing exponentially** and with new devices, sensors and emerging technologies, the rate of data growth is likely to accelerate even more. **Acquiring data and making sense** out of it are key competitive factors in today's market.

Our embedded system solutions are developed to give answers to the increasing needs of data manipulation from the IOT world.





## WEARABLES

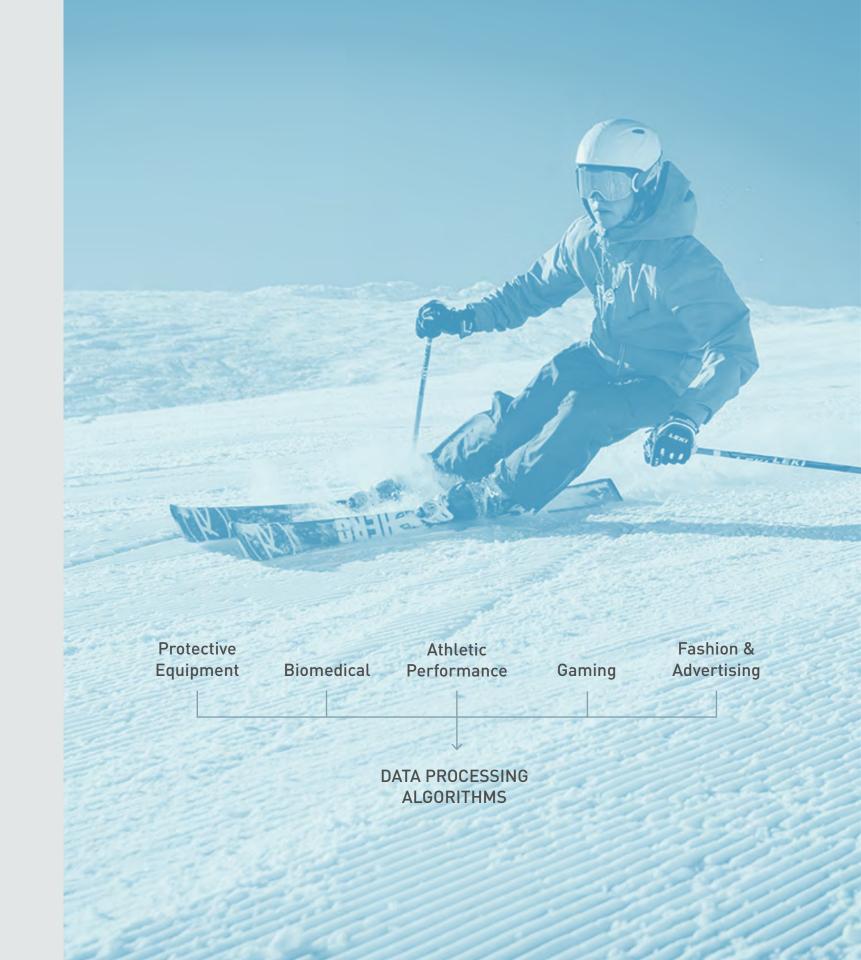
#### MARKET SNAPSHOTS

Wearable devices can give countless advantages in areas ranging from healthcare, sport and lifestyle to safety, robotics, industrial automation and gaming.

Tomorrow's challenges will increasingly be based on **data accuracy**, **extreme miniaturization** and **low energy consumption**.

Our plug & play products can monitor features related to force, pressure, direction, speed, temperature as well as biopotentials such as respiration and heart rate with a focus on obtaining precise information and ensuring the highest standards.

Our solutions facilitate the work of data scientists, researchers, makers, engineers and pioneers worldwide who are paving the way for new wearable sensors.





## **ECOSYSTEM OF SOLUTIONS**

Vertical markets

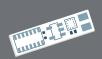
#### INTELLIGENT SYSTEMS











#### APPLICATIONS

Inertial systems (WEAR)

Body motion tracking

Sports science

Biomechanics research

Rehabilitation

Medical protocols

Ergonomics

Actigraphy

Gait analysis

Inertial systems (THINGS)

Navigation

Vehicle dynamics

Driving style recognition

UAV flight controller Stabilization platform (gimbal)

Motion control

Vibration monitoring

Biosignals

Electrocardiogram

Heart rate Respiration

Body temperature

Stress

Hydration

Force and pressure Movement and posture **Environmental monitoring** 

Ambient monitoring Safety parameters

Alert management Waste management

Smog detection

Water management Fleet management

Power consumption

**Product Integrations** 

> System **Integrations**

Automation

Industrial machinery control Indoor / Outdoor localization

Predictive maintenance

Proximity mesurement

Robotics

Motion control

M to M comunication

Cloud Data Processing

#### ENABLING TECHNOLOGIES



















#### SENSORS

Inertial sensors **Energy harvesting** 

Distance sensors Pressure sensors

Air quality sensors ECG PPG GSR

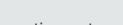
**GAS** sensors EEG **EMG** EDA

**Bluetooth** 











Radio Connectivity

Cloud technologies

Operating systems



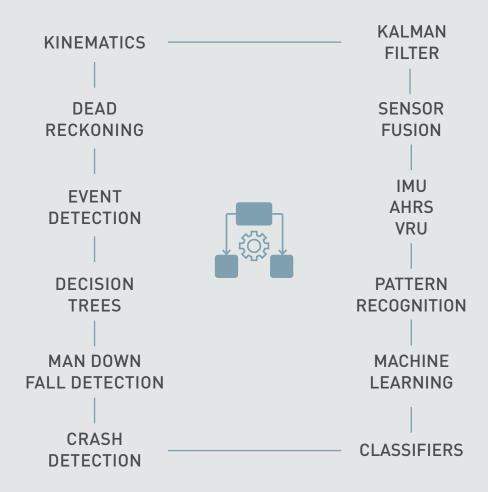
## **ALGORITHMS**

# WE ARE LEADER IN DIGITAL SIGNAL PROCESSING, EVENT DETECTION AND PATTERN RECOGNITION.

Our proprietary algorithms are the foundation of **embedded real time applications**, where sensors data is processed online for the detection of specific conditions and the execution of proper actions. Algorithms combined with our hardware devices provide **intelligent systems**.

Bottom-up capabilities allow 221e to optimize data management by using distributed AI within nodes, edge and cloud, based on a fully modular architecture.

# Internal development of algorithms based on the following features:



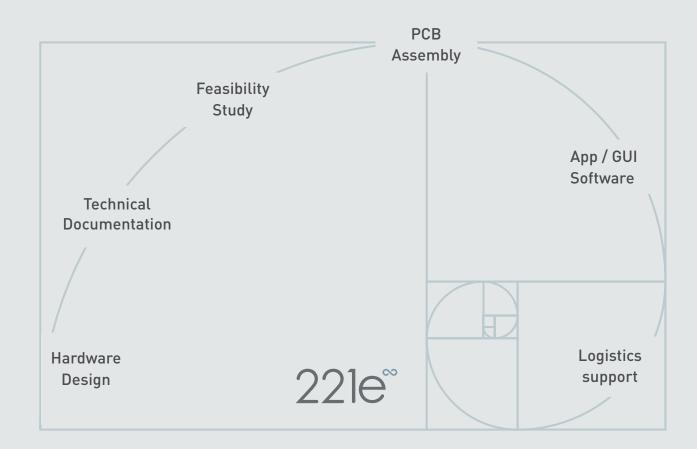


## **CUSTOM SERVICES**

#### WE ARE STRUCTURED TO PROVIDE COMPLETE SUPPORT

221e operates alongside innovative brands sharing this special journey in history when the occasion for something completely new has come. For the first time, applied sensors make it possible to **observe and perceive our world** and our interactions, empowering the data economy and enabling the digitalization of society.

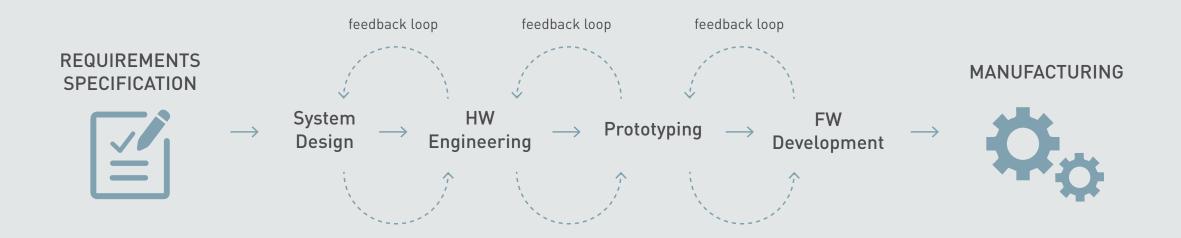
Our hardware and software capabilities can cover the most challenging project requirements. Full service: trusted processes and methods ensure quality, performance and time to market.





# ADDED VALUE

# OUR ADDED VALUE IS KNOWLEDGE IN ALGORITHM MODELING, ELECTRONICS ENGINEERING AND SYSTEM DESIGN FROM INITIAL CONCEPT TO TURN-KEY SOLUTIONS



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