



ACCYOURATE





# INNOVATIVE WEARABLE SOLUTIONS



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# **INTRODUCTION**

## **The Accyourate Group**

is a Health-Tech Group of companies that provide unique offerings in the domains of **wellness & screening, healthcare,** and **occupational health** through **innovative wearable monitoring solutions.**





Accyourate was founded in 2016 by Arnaldo Usai and Proger, a multinational Engineering Group with headquarters in Milan and Rome. Arnaldo Usai is serving, at the moment, as President of the Italian subsidiary.

**Crown Energy, an important Public Swedish Group, has acquired 85% of SmarTee S.a.r.l. in Luxembourg, the full owner of the Accyourate Group.**

Accyourate's team of more than **30 professionals** includes technological and industrial experts, scientific advisors, and business professionals.

Accyourate is an **international Group** with operations in:

At the moment, its main **areas of focus** are:



**EUROPEAN UNION**

**BALKAN COUNTRIES**

**ISRAEL**

**MIDDLE EAST**

**SWITZERLAND**

Its activities include the **research and development of innovative and unique wearable monitoring** garments of unparalleled comfort and quality, **its accompanying software platform**, and a **suite of data analytics services** directed at gaining actionable insights and indicators from **biomedical monitored data**.

Accyourate's portfolio includes basic platform patents covering the **design and production of non-metal electrodes and wiring, enabling to 'sensorize' fabrics** and other materials. This proprietary platform technology enables the 'printing' of wiring and electrodes, capable of **monitoring various biomedical parameters and signals** such as ECG, Heart Rate, Breathing pattern and more.





## **Accyourate's Mission**

is to ensure patients are better **monitored and screened**, leading to more **accurate diagnoses** and **timely treatments**, ultimately **preventing deaths** and **saving lives**.





**Accyourate is CE certified,**  
**Class-IIA, as: Wearable Medical**  
**Device for ECG Monitoring**



**SOLUTIONS**



**Accyourate's primary solution consists of a top capable of monitoring ECG, heart rate, skin temperature and respiration patterns, in addition to acceleration and kinetics.**

The top -along with the software and the data analytics algorithms-  
**serves as the basis for Accyourate's unique healthcare and wellness services and solutions.**



**The extraordinary comfort and ease-of-use of Accyourate's solutions enable the monitoring of large populations for long periods of time in an unprecedented manner.**

The monitored data is **stored and processed in the cloud**, and the services are cloud-based.

Accyourate's technology and algorithms are tailored to fit various market-specific uses, and enable the early detection of critical health events, proactively mitigating potential health issues for both at-risk and low-risk populations.

**Several scientific published works demonstrate and support the clinical uses of Accyourate's products.**

One notable publication is a recent peer-reviewed article printed in the "Journal of Medical Systems", presenting a study that was performed by researchers from the John Hopkins Institute of Medicine and the University of Bologna.

**The study compares the Accyourate monitoring shirt to a clinically used ECG monitor.**

It is titled: "Comparison Between a Single-Lead ECG Garment Device and a Holter Monitor: A Signal Quality Assessment". The study confirmed the ability to use AccYourate's shirt for medical monitoring of ECG. It also demonstrated the high level of comfort and satisfaction reported by the users.

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Dear Amir,

Following our communication, I am happy to summarize here, in short, the study conducted by me and my colleagues at the Sant'Orsola Malpighi Hospital - University of Bologna and its results. The principal investigator in the study was Prof. Claudio Borghi. The research team was part of both the University of Bologna and Johns Hopkins University.

I am glad to add that a manuscript describing the study was submitted for publication in the *Journal of Medical Systems*. Following the peer reviewing process, it has recently been accepted for publication in the journal.

The aim of the study was to compare the performance of the Accyourate's *YouCare* wearable device, a novel sensorized garment, with a conventional Holter monitor for continuous ECG monitoring.

In the course of the study, thirty patients wore both devices for 24 hours. Three expert cardiologists assessed the data qualitatively, and a specialized software analyzed it quantitatively. Patients also rated the comfort of the *YouCare* device compared to the Holter monitor.

The results shown that, when Bluetooth connection was working, 82% of the ECG signals recorded by *YouCare* were of good quality (70%) or acceptable quality (12%). R-wave synchronization between the *YouCare* and Holter devices was demonstrated in >99% of cardiac cycles. Patients found the *YouCare* device significantly more comfortable than the Holter monitor.

The study demonstrated comparable ECG data quality between the *YouCare* device and the Holter monitor, signals were acquired effectively when Bluetooth connection was working, with the added benefit of increased comfort for patients. In addition, given that the *YouCare* wearable device is designed for long continuous use, the results offer that continuous Holter-quality ECG can be recorded for long periods, with a high level of comfort for users or patients.

Best wishes,

A handwritten signature in black ink that reads "Luca Neri".

Luca Neri, Ph.D., M.B.A.



## The smart top's distinguishing features are revolutionizing health-tech

- **Embedded sensors and cotton-based conductive wires seamlessly integrate into the fabric**, leaving them completely unnoticeable.
- **Washable and reusable** textiles.
- A **“second skin”**: comfortable for prolonged daily use, just like a regular t-shirt or top.
- **Capable of collecting biomedical signals**; qualified as medical device (Certified as CE-MDD class IIa, Certified European Medical Device in Europe).
- Enables predictive and preventive measures through **advanced algorithms** in order to improve health and wellness.

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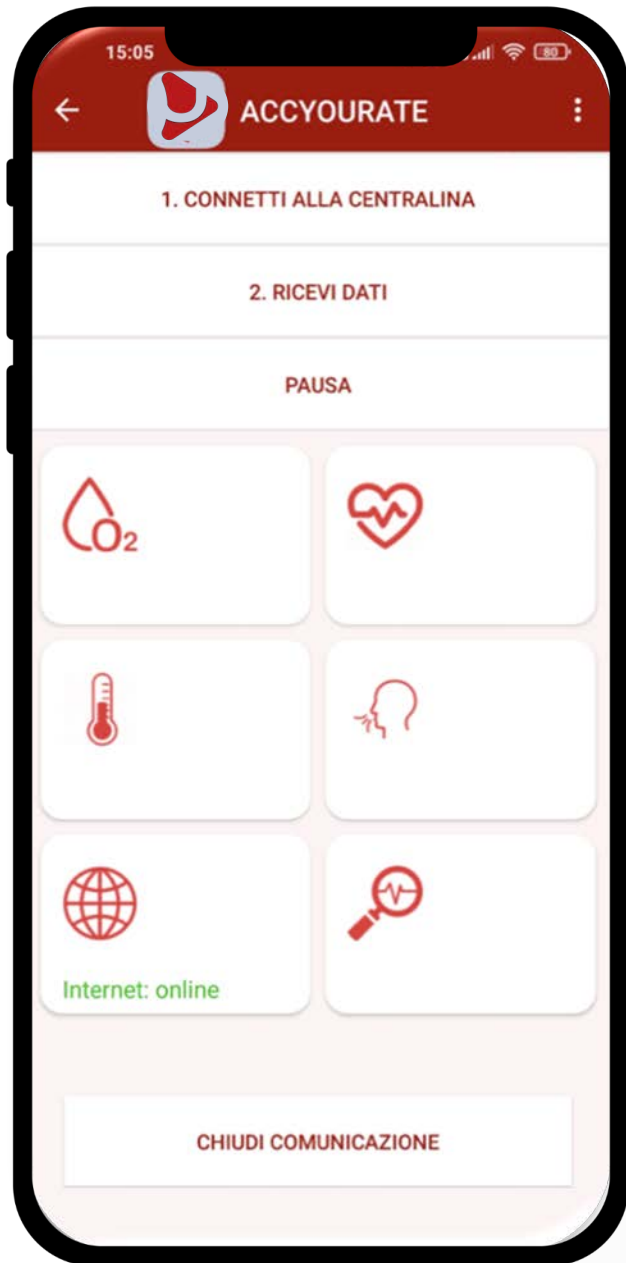
# MARKET LANDSCAPE



# Accyourate's platform and solutions can benefit many markets and segments.

**The company primarily targets cardiac healthcare and occupational health for corporations. Planned uses also include sports training, rehabilitation healthcare, defense and first responders.**

Accyourate's potential in healthcare is significant, particularly in prevention and lifesaving. Cardiovascular diseases (CVD) account for 45% of deaths, with **up to 80% being preventable**. In Europe alone, there are over 11 million new CVD cases annually, with **treatment costs exceeding \$210 billion**. Proactive screening can significantly reduce serious disease cases and deaths.



Early discharge from hospitalization and increased use of home-hospitalization can save a lot of costs..

A day in an emergency hospital bed is estimated to cost the hospital **around USD 3,000**. There are also many patient groups that are not optimally monitored today.

## THE MARKET SEGMENTS AND THEIR VALUE (2023)

**ECG monitoring market size** **USD 22.1 billion**

**Global occupational medicine market** **USD 53 billion**

**Global market size of wearables for sports** **USD 90.7 billion**

**Global military healthcare market size** **USD 25 billion**





**Thanks to the patented nature of our unique solutions, Accyourate's can leverage its first-mover advantage.**

Accyourate's services, combined with our specialized t-shirt, target a key opportunity in the market, opening a new segment with strong growth potential. The market is ready, with wearables offering significant opportunities in ECG monitoring and other segments like sleep apnea, affecting nearly 1 billion adults aged 30-69.

Few competitors exist in this field, most in early development stages. Established companies, like Garmin, focus on pulse and sleep measurement via watches and rings, mainly sold B2C for wellness and sports.



The global smartwatch market is projected to grow from \$60.14 billion in 2022 to \$64.41 billion in 2023, with a compound annual growth rate (CAGR) of 7.1%. By 2027, it is expected to reach \$84.05 billion, growing at a CAGR of 6.9%. The overall wearable technology market is forecasted to expand from \$186.48 billion in 2023 to \$419.44 billion by 2028, with a CAGR of 17.60%.

Several companies have developed various healthcare patches, some certified as medical devices. Only a few companies use polymer textiles for measurement, typically selling the garments alone. Some offer an app, but only a few provide a software platform for healthcare monitoring.

**No competitor offers a combination of an app, a system with a platform, and a wearable garment measuring seven indicators like Accyourate.**

H I G H

M I D

L O W

COMFORT \ WEARABILITY

D A T A   R E L I A B I L I T Y

L O W  
(NON-MEDICAL)

M I D  
(MEDICAL DEVICE)

H I G H  
(PROFESSIONAL DEVICE)

ambio|tex



Medtronic



L.I.F.E



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# SECTORS



# Accyourate engages in five different sectors

## **MEDICAL**

- **At-home monitoring**
- **Earlier discharge** *from hospital*
- **Rehabilitation and screening**

## **WELLNESS**

- **Regular monitoring** *of individuals*

## **SPORT**

- **Monitor professional and amateur athletes**
- **Improve training and increase performance**
- **Reduce risks**

## **DEFENSE**

- **Monitor service** *personnel*

## **CORPORATE**

- **Fire Fighters/First responders**
- **Lone workers**
- **Construction workers**



## Accyourate's provides reliable and insightful health data to support better patient care and screening

Among the potential applications of the technology in the medical sector are:

### **Insurance**

Offering tailored insurance products, personalized coverage, improved risk assessment, health promotion, enhanced underwriting, real-time health alerts, and early chronic condition detection.

### **Treatment Optimization**

Allowing healthcare professionals to monitor the effectiveness of treatments and adjust care plans based on real-time data, enhancing patient outcomes.

### **At-Home Monitoring**

Providing continuous monitoring of patients' vital signs and health metrics, allowing healthcare providers to respond promptly to changes in condition and to save costs on hospital beds.





# Accyourate's platform helps individuals track and improve their overall wellness through personalized health insights

Among the potential applications of the technology in the wellness sector are:

## **Vital Insights**

Delivering precise data on vital signs and health metrics, empowering users to make informed decisions for optimal wellness.

## **Personalized Wellness Plans**

Creating tailored wellness programs based on real-time health data, allowing individuals to achieve their fitness and health goals more effectively.

## **Data-Driven Recommendations**

Analyzing activity levels, sleep patterns, and nutrition to provide personalized health advice and enhance overall well-being.



## Accyourate enhances athletes' training programs by providing performance and physical condition data

Among the potential applications of the technology in the sports sector are:

### ► **Performance Optimization**

Providing critical data on athletes' physical conditions, helping coaches tailor training programs for maximum efficiency.

### ► **Injury Risk Reduction**

Monitoring physiological and biomechanical data to identify and mitigate potential injury risks.

### ► **Strategic Training Insights**

Utilizing detailed performance analytics to enhance training strategies and improve competitive results.



## Accyourate's technology can monitor the physical well-being of military personnel and first-responder forces in real-time

Among the potential applications of the technology in the defense, law enforcement, and security sectors are:

### ➤ **Remote Monitoring**

Providing accurate real-time data about biomedical parameters of personnel in the field, allowing commanders to respond to critical situations more effectively.

### ➤ **Training & Performance**

Allowing to monitor physical performance during training or operations, with reliability levels of biomedical devices, to assess mission readiness.

### ➤ **Analytics**

Enabling analytics of aggregated data, including stress levels, kinetics, positioning and more during trainings or operations can be used to refine training strategies and to make informed decisions about resource allocation.



## Accyourate's solution supports employee health and safety initiatives through health monitoring and analytics

Among the potential applications of the technology in the corporate sector are:

### **Safety Monitoring**

Providing crucial health data to monitor the well-being of employees in high-risk jobs, such as construction workers and firefighters.

### **Performance & Readiness**

Tracking physical readiness and fatigue levels, ensuring workers are fit for duty and reducing the risk of accidents.

### **Emergency Response**

Enabling rapid health assessments during emergencies, helping manage and respond to incidents more effectively.

***EXPERIENCE THE  
FUTURE OF  
HEALTHCARE***

**LEARN MORE AT  
[WWW.ACCYOURATE.COM](http://WWW.ACCYOURATE.COM)**



# Thank You

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