



FOR HUMAN PERFORMANCE

# artemYs Application

A Complete Bioengineering Solution

# DISCLAIMER

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## TERMS & CONDITIONS

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“Your best ability is your availability”

- Bill Parcells ex-NFL Coach

**Problem**

# Muscle Injuries Exhaust Clubs Financially

There is still no solution to support numerically performance optimization

01

**Too many muscle injury incidents**

Professional athletes either underperform or get entirely out of action

EPL: 915 Total injury instances in 2023-24 season

02

**Lack of myoskeletal monitoring tools**

While unmonitored, injuries extend inactivity period, compromising Team goals

EPL: 28.25 average injury severity (days) in 2023-24 season\*

03

**Financial bleeding**

EPL clubs paid out £267.9m in injured players' salaries

£0.285m average cost per injury in 2023-24 season\*

\*Howden, The 2023/24 European Football Injury Index (2024)

Solution

# artemYs

An AI-powered Bioengineering Tool, that revolutionizes lower limb myoskeletal monitoring and personalized athlete performance tracking, while unifying the digital health sector with SI-standard metrics

By combining inertial data with myoskeletal measurements, we address the, complex multifactorial nature of muscle injuries.

## COMPONENT 01

Personalised Workload Metrics-First to compute personalised metrics

## COMPONENT 02

Stress Load / Muscle Unit-First to deliver the groundbreaking myoskeletal "IDEA"

## COMPONENT 03

Complete Athlete Profiling-All data & insights wrapped in a personal medical "passport"

# How it works

## DATA INPUT

ATHLETE INERTIAL DATA IS COLLECTED AUTOMATICALLY WITH NO HASSLE ON THE CLIENT'S SIDE.

LOWER LIMB MAGNETIC RESONANCE IMAGING (MRI) SCANS ARE COLLECTED, INCLUDING THE MOTOR UNIT(S) OF INTEREST (PAST SCANS CAN BE EXPLOITED).

## DIGITAL TWIN

NEXT, A 3D MODEL OF EACH MOTOR UNIT IS CREATED THROUGH THE SEQUENTIAL USAGE OF COTS SOFTWARE SUITES.

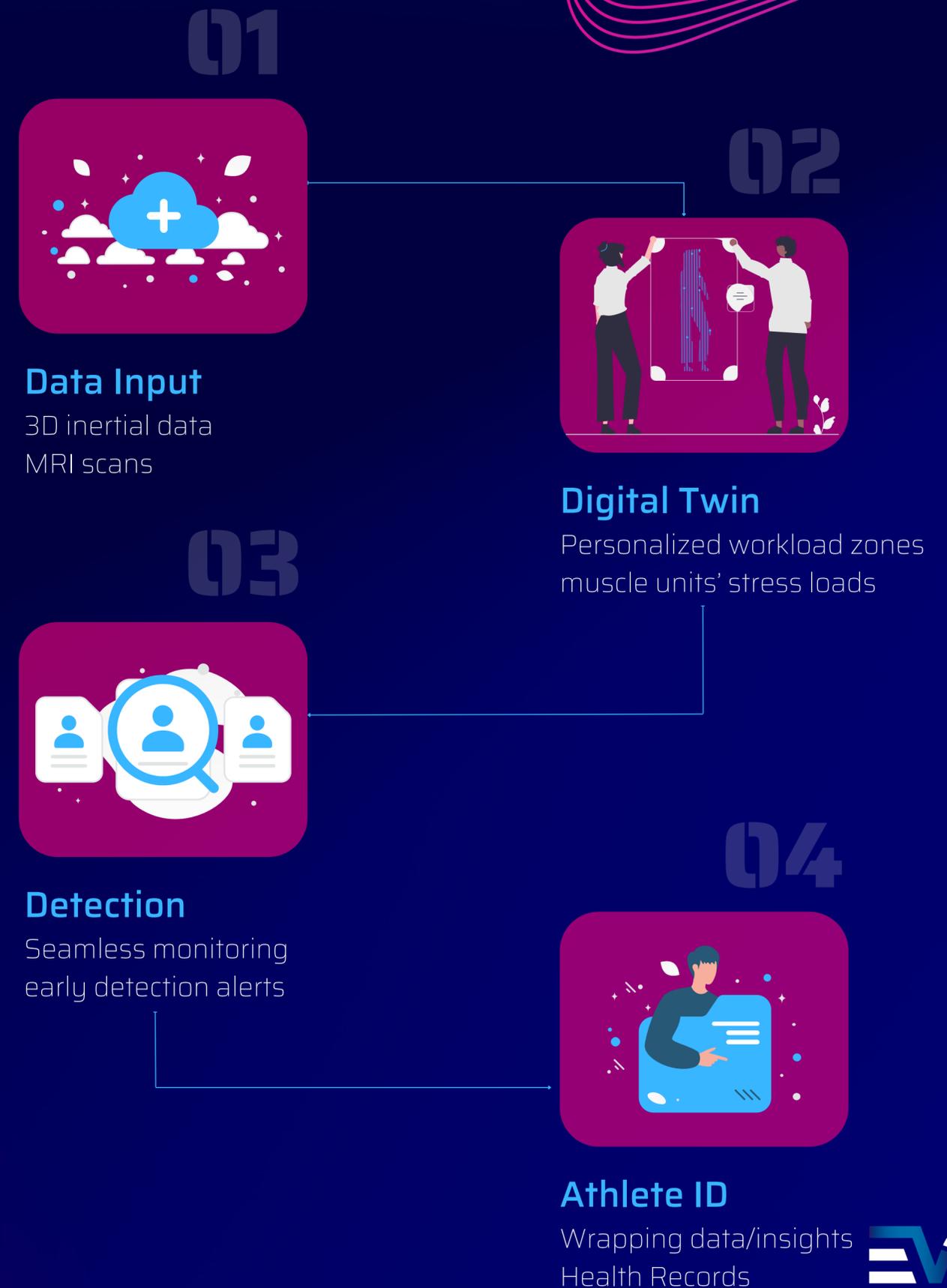
INPUT DATA IS PROCESSED, IN ORDER TO CREATE A PERSONALIZED EQUATION FOR LOADING ABILITY.

## DETECTION

THE SYSTEM PROVIDES SEAMLESS MONITORING & EARLY DETECTION ALERTS BOTH FOR THE WORKLOAD COMPONENT AND THE ATHLETE'S MYOSKELETAL CONDITION.

## ATHLETE PROFILING

THE SYSTEM WRAPS ALL THE AVAILABLE DATA AND COMPUTED METRICS, ALONG WITH THE ADDITIONAL SOURCES' INFORMATION INTO A PERSONAL MEDICAL PROFILE. THE LATTER REFLECTS THE ATHLETE'S CURRENT AND PAST PERFORMANCE & HEALTH CONDITION.



# Sensors



## Click and Travel

With just one click, your tech partner is ready to go. Gather the sensors, snap them into place, pack them in the travel case and you're set to perform anywhere in the world.



## Set Up and Ready to Go

Place the sensor where it fits best - sewn into shorts, t-shirt, or wherever it stays out of the way. Performance meets convenience, tailored to you.

## Lost information

Athletes' historical data, metrics and insights are often lost.

Either because of team transfers or the lack of sufficient systems, capable to maintain and share this invaluable information.

Or both...

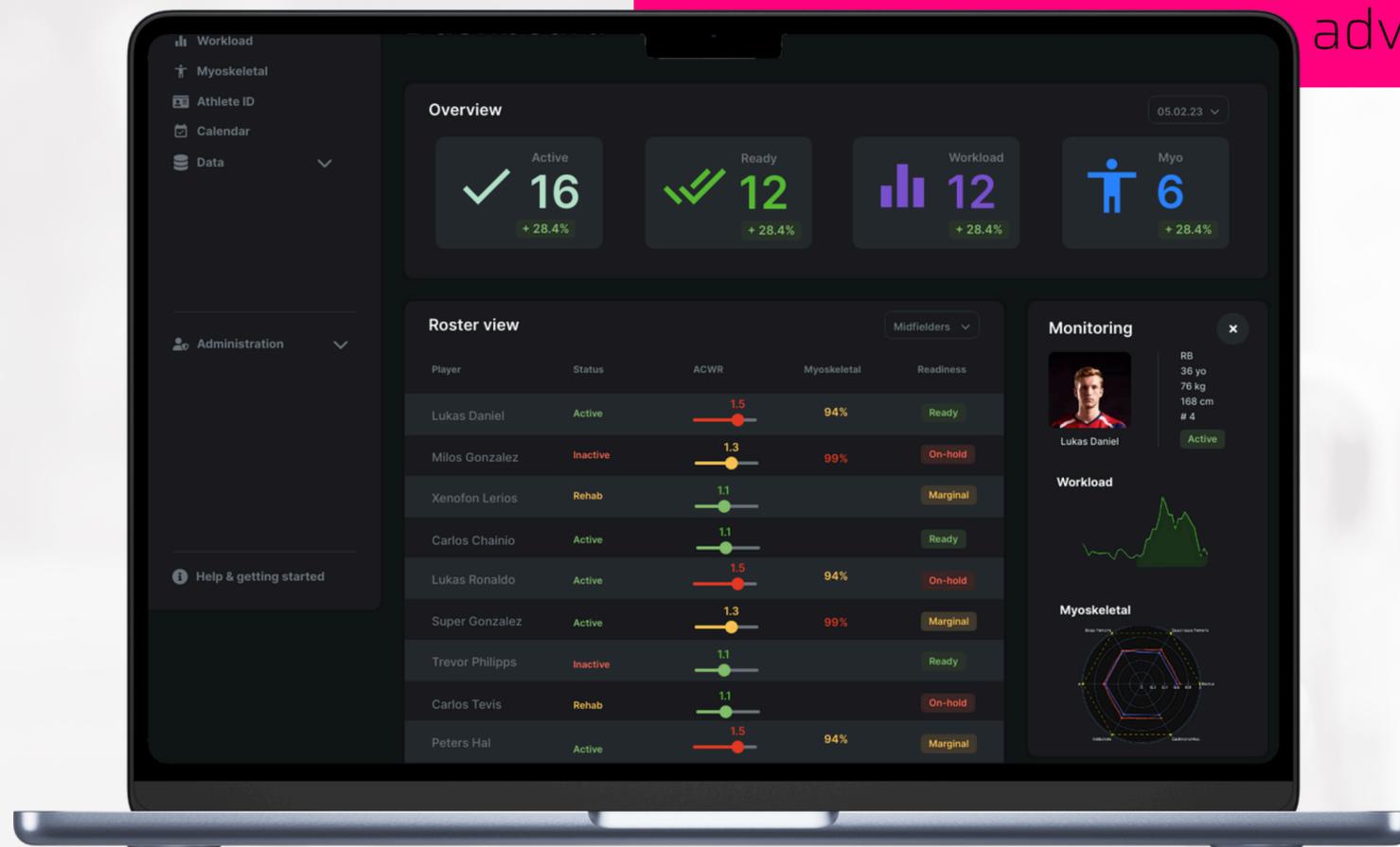
## In your hands...

Combining a multitude of data sources, advanced computing and inference, artemYs produces the most essential information and insights, wrapped in the Athlete ID.

artemYs  
an AI-powered Bioengineering  
tool that monitors the athlete's  
Myoskeletal system &  
Performance level.

Intended to give our clients a competitive advantage in assessing  
each muscle unit separately, while also encapsulating all athlete-  
related performance and medical insights.

Easy to navigate, customisable to  
each Team's needs, so professionals  
in different departments can reap its  
advantages.



# Case Study

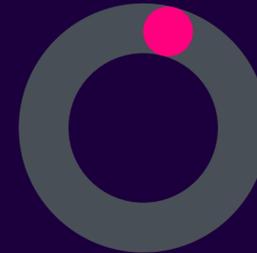
THE CASE OF A TOP-NOTCH EUROPEAN BASKETBALL CLUB IS PRESENTED, DEMONSTRATING HOW ARTEMYS WAS CAPABLE TO SAVE €2.7M BY SUCCESSFULLY DETECTING MUSCLE INJURIES.

**⚠ NOTE**  
The Team & Players' names are indicative for data privacy reasons.

2021   
artemYs

THE TEAM SUFFERED XXX UNDETECTED MUSCLE INJURIES, ENCOUNTERING SEVERE MONEY LOSS.

0%  
DETECTED  
MUSCLE INJURIES



800  
DAYS  
OUT OF ACTION



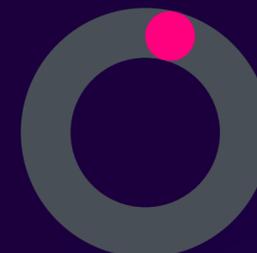
€1.3m  
LOSS

13%  
TEAM  
PAYROLL

2022   
artemYs

THE TEAM SUFFERED XXX UNDETECTED MUSCLE INJURIES, ENCOUNTERING SEVERE MONEY LOSS.

0%  
DETECTED  
MUSCLE INJURIES



1200  
DAYS  
OUT OF ACTION



€1.3m  
LOSS

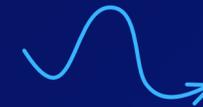
13%  
TEAM  
PAYROLL

2023   
artemYs

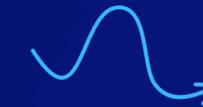
BASED ON ARTEMYS EARLY ALERTS, 3 MUSCLE INJURIES WERE DETECTED.

SPORT SCIENTISTS COMPLIED WITH THE SYSTEM'S RECOMMENDATIONS ONLY FOR 1 OUT OF 3 CASES, SAVING €2.7M.

19%  
DETECTED  
MUSCLE INJURIES



129  
DAYS  
OUT OF ACTION



€2.8m  
LOSS

13%  
TEAM  
PAYROLL

289  
SAVED  
DAYS

2.7m  
SAVED  
MONEY

# Case Study

THE CASE OF A TOP EUROPEAN BASKETBALL CLUB IS PRESENTED, DEMONSTRATING HOW ARTEMYS WAS CAPABLE TO SAVE THE TEAM MONEY, BY SUCCESSFULLY DETECTING MUSCLE INJURIES.

## ⚠️ NOTE

Team & Players' names are omitted for data privacy reasons.

### SEASON 2021-2022

artemYs

THE TEAM SUFFERED 15 UNDETECTED MUSCLE INJURIES, ENCOUNTERING SEVERE MONEY LOSS.



### SEASON 2022-2023

artemYs

BASED ON ARTEMYS INJURY RISK ALERTS, 9 MUSCLE INJURIES WERE DETECTED.

ARMED WITH INSIGHTS FROM THE ARTEMYS PLATFORM, THE TEAM'S PERFORMANCE SCIENTISTS WERE ABLE TO EFFECTIVELY MANAGE PLAYER WORKLOADS AND SIGNIFICANTLY REDUCE INJURY LOSSES COMPARED TO PREVIOUS SEASONS.



\* Calculated as a fraction of the annual players' budget

# Key benefits

- Performance optimization
  - Personalized mathematical equation to describe loading ability
  - Less time and salaries lost through days injured
  - Protecting your asset for now and the future
  - 3D digital twin
  - System International (SI) with units for loads
  - Object (bricks) with engineering and mathematics for all stakeholders to create valid models
  - AI tools for automate reporting
  - Customized solutions
  - Cybersecurity provision
  - Cloud based automated generated Data Bases
  - Market place with connected digital tools under a cross platform

# Business 360

**Cross Platform**  
Create a marketplace with digital tools

**Augmented Reality (AR) Coaching**  
Visual guidance during exercises and scouting

**IMU Sensors Provider**  
Small form with superior data

**artemYs SaaS**  
Personalized athlete performance monitoring

**Real Time Feedback**  
Provide real-time performance feedback during training sessions

**Video Analysis**  
Build 3D models of athletes' movements

**Mobile App**  
Performance monitoring in your hand

**Data Assets**  
Generate data Banks for sport clubs



# Contact

EVO HUMAN PERFORMANCE IS A TEAM OF BIOENGINEERS AND DATA SCIENTISTS WITH THE SOLE FOCUS OF PROVIDING AND DELIVERING DATA-DRIVEN, PERSONALISED AND EXPLAINABLE SOLUTIONS TO OUR CLIENTS IN THE SPORT SECTOR.

WE ARE HEADQUARTERED IN ATHENS, GREECE. CURRENTLY, WE ARE SERVING SEVERAL DOMESTIC AND EUROPEAN PROFESSIONAL CLUBS, BOTH IN FOOTBALL AND BASKETBALL.

## From data to success

By combining inertial sensor data with myoskeletal measurements, we deliver a complete BioEngineering solution which answers the multifactorial nature of performance optimization.

OUR SERVICES HAVE BEEN PRAISED BY RENOWNED PERSONALITIES OF THE EUROPEAN SPORTS FIELD, LIKE MASSIMO SIMONETTA (H&P OFFICER PRESSO EUROLEAGUE BASKETBALL).



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