A smart device to improve performance & welfare for horses
Globally, more than 5 horses die on race tracks every day, a loss of 700M€ per year.

In reality, 10 times more horses die or get killed before competing as they are severely injured during training.

This is happening because racehorses are always pushed too hard.

The industry has a name for it: “horse wastage”
Horse training – by professional – is today based on analogue methods

Manual tracking of respiratory rate leads to unprecise assessment of training intensity

Respiratory issues affects +80% racehorses

Losing a horse cost from 200K to 500K€
StepUp Horse is the 1st device to track breathing in a non-invasive way during exercise.

Measure breathing and take better decisions.

Prevent over training and improve horse performance.

Get notified of early signs of respiratory abnormalities and take care of horse’s health.
How it works

Easy to set up strap

Real-time data on Garmin / Apple Watch

Real-time data + Advanced analytics post-training

BLE

Device with removable electronics
Contains machine learning algorithms

LTE CAT-M1 & 2G

Cloud-based data collection and processing
## Competition

We are the first to monitor breathing during training

<table>
<thead>
<tr>
<th>Brands</th>
<th>StepUp Horse</th>
<th>ARIONEO</th>
<th>equinity</th>
<th>E-RAKKA</th>
<th>POLAR</th>
<th>equiSense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price for 1st year</td>
<td>1000 €</td>
<td>1899 €</td>
<td>425 €</td>
<td>2000 €</td>
<td>250 €</td>
<td>400 €</td>
</tr>
<tr>
<td>Business Model</td>
<td>Unit + Subscription</td>
<td>Unit + / &amp; Subscription</td>
<td>Unit &amp; Subscription</td>
<td>Unit + Subscription</td>
<td>One time purchase of Unit</td>
<td></td>
</tr>
<tr>
<td>Breathing Frequency</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Zones</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatigue Detection</td>
<td>✔*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screening for Respiratory Anomalies</td>
<td>✔**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motion (Speed &amp; Distance) Stride frequency &amp; length</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Heart Rate</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

*Will be implemented in 2023
**Will be implemented in 2024
Traction
From Interviews to Conditional Sales Agreements

60 Interviews conducted

25+ Letters of intents

3 Conditional Sales Agreements

Sandie Kjær
Gallop trainer

Dorte Lykke
Trot trainer & owner

Sarah Bäckman
Trot trainer & owner
Milestones

- **Q2 2021**: 150K€ received from soft funding. Spin out from StepUp Solutions.
- **Q1 2022**: Semi Finalist of the Danish Tech Challenge. 50K€ received from ESA BIC grant.
- **Q3 2022**: Patent application.
- **Q4 22 - Q1 23**: 110K€ received from soft funding. 140K€ raised from business angels.
- **Q3-4 2023**: Minimum Viable Product available in Scandinavia market. Sold 100 units.
- **Q1-2 2024**: 1.2M€ raised in Series A. Market-Fit Product available.
Team

Founders

Amit Moriani
CEO
MBA (Marketing)
12 years of Sales & BD experience

Charles H. Gayot
CTO
Double M.Sc. in engineering
5 years of tech start-up experience

Sandie Bregnager Kjær
CBO
Professional horse trainer
with 20+ years of experience
Owner of HealthyHorse

Volunteers & Interns

Vasilina Baciu
Sales and Marketing

Kieran Theret
Embedded Software

Ilian Haralampiev
Data Scientist

Jean Lanthiez
Mechanical Engineer

Industry Advisors

Corrie Knack
Professional ex-race horse trainer & entrepreneur

Mikkel Shafi
Stable owner & entrepreneur

Prof. Jeremy Naylor
Veterinarian, researcher & Racehorse trainer

DTC Business Mentor Team

3 experienced mentors
for BD & marketing strategy

Partners

University of Copenhagen
Lab2Field
Pole Hippolia & EEBA
Thank you for your attention

info@stepuphorse.com

I'm more than a race car, I'm your companion!
Inside Outside

What’s inside?

1.6 meter long stretchable strap
Breathing sensor – our uniqueness
3 Electrodes for accurate ECG / Heart Rate
Casing with holding removable Electronics (for washing the belt)
GNSS receiver with (soon) Galileo HAS and other sensors
Velcro for stable mount on the saddle or harness
Velcro for easy installation around the horse

Removable electronics (1 week battery life, wireless charging)
Backend for data storage
Smartwatch for real-time data
User’s phone for data visualization

Total weight: 850g
Product Roadmap

Q3-Q4 2020
Proof of concept validated on horses with University of Copenhagen
Features: Breathing rate, heart rate, BLE

Q1 2021 – Q2 2022
Development of business opportunities and operational requirements
Moved from POC to pilot product
Started incubation in ESA BIC Denmark (Q1 2022)

Q3-Q4 2022
Pilot with 20 customers with limited functionalities
Beginning of R&D to implement a high accuracy GNSS system to combine with data from breathing and heart rate data for training intensity estimation (under ESA BIC Denmark contract)

Q1-Q2 2023
Kickstart project: Development and testing of 2nd pilot for fatigue detection with potential customers
Finalization of specs of MVP
Validation of go-to-market strategy and business model

Q3-Q4 2023
Production and Selling of Minimum Viable Product (first 100 units) for horse racing industry

Q1-Q2 2024
Beginning of the R&D to use AI to study the detection of respiratory issues (asthma, EIPH,…) among horses
Mass-manufactured product (batches of 1000 units)

Q1 2025
New product for vets and breeder

Q1 2027
Expand to other disciplines (Show Jumping, Eventing, Dressage etc.)
All essential features integrated to make better decision & improve performance

**Smartwatch & Mobile App**

**In real-time**
- Breathing rate
- Training intensity
- Fatigue detection**
- Ventilation***
- Speed
- Distance
- Heart rate
- Lap time*
- Stride Frequency
- Stride length*

**For each session**
- Recovery breathing rate
- Recovery heart rate
- All real-time data
- Weather and ground conditions
- Intuitive graphs to compare parameters
- Maps

**Mobile App**

**Work as a team**
- Add riders, trainers and owners in your team and collect & share the data with each of them.
- Add comments on each ride after training
- Access to historic data from past training

**Track progress**
- Compare horses over time and follow their progress

**Take care of horses**
- Get alerted in case of respiratory and cardiac abnormality***

*Will be implemented later in 2022
**Will be implemented in 2023
***Will be implemented in 2024
### G2M Strategy

<table>
<thead>
<tr>
<th>Phase</th>
<th>Disciplines</th>
<th>Markets</th>
<th>Market Size</th>
<th>Target</th>
<th>Subscription</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Horse Racing</td>
<td>Scandinavia: DK &amp; SE</td>
<td>6K customers – 6M €*</td>
<td>100 customers – 10K €* + subscription**</td>
<td></td>
</tr>
<tr>
<td>Phase 2</td>
<td>Horse Racing</td>
<td>Scandinavia, France &amp; Ireland</td>
<td>21K customers – 21M €*</td>
<td>4300 customers – 4.3M €* + subscription**</td>
<td></td>
</tr>
<tr>
<td>Phase 3</td>
<td>All Disciplines</td>
<td>Scandinavia, France &amp; Ireland</td>
<td>240K customers – 240M €*</td>
<td>14000 customers – 14M €* + subscription**</td>
<td></td>
</tr>
</tbody>
</table>

**Channels:**
- LOIs & D2C
- One on ground distributor for each market
- Two online channels for each market
- 10 Stables in each market (+20 racehorses)

**Channels:**
- B2B Magazines
- Tie up with Influencers

---


1. Serviceable Addressable Market
2. Total Addressable Market

*The market size is calculated as number of potential customers* price of the product for the first year

**Subscription cost includes 20 € per month (in 2023 from 2nd year, from 2024 from 1st year and we expect 70% customer retention)

**Subscription cost includes 20 € per month (in 2023 from 2nd year, from 2024 from 1st year and we expect 70% customer retention)

**From 2024 onwards will also offer premium subscription options for customers.
Business model & pricing validated by potential customers

Device (incl. 1 year subscription): 1000 €

Subscription (after 1st year): 20 €/month/per hardware device
Intellectual Property Strategy

Q1 2021: Freedom to operate: Yes

Q4 2021: Trademark registered

Q3 2022: 1st patent application on Sensor integration & algorithms

Q3-Q4 2023: 2nd patent application on Application-specific on advanced features (Algorithms)
<table>
<thead>
<tr>
<th>Horse Racing (Galloping &amp; Trotting)</th>
<th>Beachhead</th>
<th>6K customers (Scandinavia Market) – 6M €*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SAM¹</td>
<td>21K customers (Scandinavia, France &amp; Australia Market) – 21M €*</td>
</tr>
<tr>
<td></td>
<td>TAM²</td>
<td>300K customers (Globally) – 300M €*</td>
</tr>
</tbody>
</table>

| All Disciplines                    | TAM²      | 3 Million customers (Globally) – 3 Billion €* |


*1 Serviceable Addressable Market  
*2 Total Addressable Market

*The market size is calculated as number of potential customers* price of the product for the first year.
Testimonials from Key Opinion Leaders from Denmark & Sweden

Amanda Andersson
International Gold Medal-Owner & Trainer – Eventing – Sweden

“It will be interesting to use the belt and incorporating breathing parameter could give better understanding of horse condition & performance.”

Steen Juul
Leading trot trainer & owner in Denmark

“Currently I have tool to check heart rate, but my horses face respiratory issues and there is no tool in market to check breathing data. Looking forward to test & buy the product”

Hakan K Persson
Trot trainer & owner – Sweden

“Looking forward to use the belt, since I train all horses individually, it will help me recognize state of each horse on specific dates & allow me to take decision based on data.”
Breathing is the missing link in training high performance horses

<table>
<thead>
<tr>
<th>Respiratory Rate</th>
<th>Early indicator of exhaustion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilation</td>
<td>Indicate each horse limits</td>
</tr>
<tr>
<td>Respiratory issues</td>
<td>To track early signs of respiratory abnormalities</td>
</tr>
</tbody>
</table>
StepUp Horse makes good gross margin

<table>
<thead>
<tr>
<th></th>
<th>Up to 100 units</th>
<th>Up to 1000 units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales price per unit</strong></td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td><strong>Direct cost per unit:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>Components + Assembly</td>
<td>250</td>
<td>170</td>
</tr>
<tr>
<td>License fee*</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Package &amp; Delivery</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total COGS</strong></td>
<td>370</td>
<td>260</td>
</tr>
<tr>
<td><strong>Gross Margin</strong></td>
<td><strong>630</strong></td>
<td><strong>740</strong></td>
</tr>
<tr>
<td><strong>Gross Margin</strong></td>
<td><strong>63%</strong></td>
<td><strong>74%</strong></td>
</tr>
</tbody>
</table>

- Up to 100 units, our cost of manufacturing per unit is 370 euros and falls to 260 euros for 1000 units.

- Thanks to margin, we can sell with discounts or distributor fee while selling MVP units and market fit products.

*License fee is paid to StepUp Solutions which did the initial development of the technology. The company is owned 100% by StepUp Horse CTO.
Growth of adjacent markets

**Global Equine Equipment Market (M$)**

- 2019: $1.900
- 2028: $2.775
- CAGR: +4.3%

**Global Veterinary Wearable Device Market (M$)**

- 2018: $1.500
- 2026: $3.741
- CAGR: +12.1%
## Financial projections

<table>
<thead>
<tr>
<th></th>
<th>2021–22</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. of Countries</strong></td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Market Size (no. of potential customers)</strong></td>
<td>6K</td>
<td>21K</td>
<td>21K</td>
<td>21K</td>
<td>240K</td>
<td>240K</td>
<td></td>
</tr>
<tr>
<td><strong>No. of units sold</strong></td>
<td>100</td>
<td>600</td>
<td>1200</td>
<td>2500</td>
<td>5000</td>
<td>9000</td>
<td></td>
</tr>
<tr>
<td>( '000 € )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Sales (Devices+ Subscriptions)</strong></td>
<td>100</td>
<td>618</td>
<td>1210</td>
<td>2702</td>
<td>5420</td>
<td>9840</td>
<td></td>
</tr>
<tr>
<td><strong>COGS</strong></td>
<td>57</td>
<td>276</td>
<td>552</td>
<td>1150</td>
<td>2300</td>
<td>4140</td>
<td></td>
</tr>
<tr>
<td><strong>Gross Profit</strong></td>
<td>43</td>
<td>342</td>
<td>658</td>
<td>1552</td>
<td>3120</td>
<td>5700</td>
<td></td>
</tr>
<tr>
<td><strong>Total Operating expenses</strong></td>
<td>170</td>
<td>250</td>
<td>785</td>
<td>985</td>
<td>1252</td>
<td>1620</td>
<td>1980</td>
</tr>
<tr>
<td><strong>EBITDA</strong></td>
<td>-170</td>
<td>-207</td>
<td>-443</td>
<td>-327</td>
<td>300</td>
<td>1500</td>
<td>3720</td>
</tr>
</tbody>
</table>

By 2024 we launch in 2 new markets with Scandinavia (7% of entire horse racing market). In 2026, we enter all disciplines in the same markets and achieve 3.75% till 2028.

63% of general & administration expenses in 24–28, will be spend on salaries.

We expect to retain 70% of customers after the first year.

COGS includes 20% distributor fee or discount.
We are looking for 250,000€

Objective
- Make changes after pilot testing, certify, manufacture and sell 100 MVP

Source
- 110K from public funding, 140K from investors

Ideal investor profile
- Experience in horse racing industry and/or invested in animal-related products

Next round
- 1.2M€ for expansion in 2024

Expected breakup

<table>
<thead>
<tr>
<th>Area</th>
<th>Detailed expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorithms &amp; Embedded</td>
<td>1 part time engineer, 1 founder</td>
</tr>
<tr>
<td>Sales &amp; Business Development</td>
<td>Trade show exhibitions, 2 part time salesperson, 1 founder</td>
</tr>
<tr>
<td>Manufacturing &amp; Mechanical</td>
<td>DFM reviews, Manufacturing of 100 units</td>
</tr>
<tr>
<td>Software &amp; UX</td>
<td>Outsourced: Development of smartwatch app, maintenance and UI changes</td>
</tr>
<tr>
<td>Scientific testing &amp; validation</td>
<td>Outsourced: Lab2Field for validation of accuracy</td>
</tr>
<tr>
<td>Patent Application</td>
<td>IP attorney and fees</td>
</tr>
</tbody>
</table>