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

Device with removable electronics
Contains machine learning algorithms

Real-time data on Garmin / Apple Watch

Real-time data + Advanced analytics post-training

BLE

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>STEPUHorse</th>
<th>ARIONEO</th>
<th>equinTy</th>
<th>TRAKKA</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

Corrie Knack
Professional ex-race horse trainer & entrepreneur

Mikkel Shafi
Stable owner & entrepreneur

Prof. Jeremy Naylor
Veterinarian, researcher & Racehorse trainer

3 experienced mentors for BD & marketing strategy

DTC Business Mentor Team

University of Copenhagen
Lab2Field
Pole Hippolia & EEBA

Partners
Thank you for your attention

info@stepuphorse.com

I’m more than a race car, I’m your companion!
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

**What's inside?**

Removable electronics (1 week battery life, wireless charging)

Backend for data storage

BLE or ANT

Smartwatch for real-time data

User’s phone for data visualization

Total weight: 850g
Proof of concept validated on horses with University of Copenhagen
Features: Breathing rate, heart rate, BLE

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

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

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

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)

New product for vets and breeder

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

<table>
<thead>
<tr>
<th><strong>Smartwatch &amp; Mobile App</strong></th>
<th><strong>Mobile App</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In real-time</strong></td>
<td><strong>Work as a team</strong></td>
</tr>
<tr>
<td>- Breathing rate</td>
<td>- Add riders, trainers and owners in your team and collect &amp; share the data with each of them.</td>
</tr>
<tr>
<td>- Training intensity</td>
<td>- Add comments on each ride after training</td>
</tr>
<tr>
<td>- Fatigue detection**</td>
<td>- Access to historic data from past training</td>
</tr>
<tr>
<td>- Ventilation***</td>
<td>- Track progress</td>
</tr>
<tr>
<td>- Speed</td>
<td>- Compare horses over time and follow their progress</td>
</tr>
<tr>
<td>- Distance</td>
<td>- Take care of horses</td>
</tr>
<tr>
<td>- Heart rate</td>
<td>- Get alerted in case of respiratory and cardiac abnormality***</td>
</tr>
<tr>
<td>- Lap time*</td>
<td><strong>Take care of horses</strong></td>
</tr>
<tr>
<td>- Stride Frequency</td>
<td><strong>Take care of horses</strong></td>
</tr>
<tr>
<td>- Stride length*</td>
<td><strong>Take care of horses</strong></td>
</tr>
</tbody>
</table>

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

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

#### Horse Racing
(Galloping & Trotting)

- **Phase 1** 2023
  - **Scandinavia: DK & SE**
    - Market Size: 6K customers – 6M €*
    - Target: 100 customers – 10K €* + subscription**
  - Channels: LOIs & D2C
    - (DK & SE) local fairs
    - Distributor: Equinics

- **Phase 2** 2024 to 2026
  - **Scandinavia, France & Ireland:**
    - Market Size: 21K customers – 21M €*
    - Target for 2026: 4300 customers – 4.3M €* + subscription**
  - Channels: LOIs & D2C
    - One on ground distributor for each market
    - Two online channels for each market
    - 10 Stables in each market (+20 racehorses)

- **Phase 3** 2027 to 2028
  - **Scandinavia, France & Ireland:**
    - Market Size: 240K customers – 240M €*
    - Target for 2028: 14000 customers – 14M €* + subscription**
  - Channels: Phase 1&2 +
    - Online marketing
    - Tie up with Influencers
    - B2B Magazines

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1. Serviceable Addressable Market
2. Total Addressable Market
3. The market size is calculated as number of potential customers * price of the product for the first year
4. **Subscription cost includes 20 € per month (in 2023 from 2nd year, from 2024 from 1st year and we expect 70% customer retention)**
5. **From 2024 onwards will also offer premium subscription options for customers.**

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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)
### Market Size

<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

Steen Juul  
Leading trot trainer & owner in Denmark

Hakan K Persson  
Trot trainer & owner - Sweden

“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”

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

“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>630</td>
<td>740</td>
</tr>
</tbody>
</table>

| Gross Margin         | 63%             | 74%             |

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

CAGR +4.3%  2.775  2019  2028
1.900

CAGR +12.1%  3.741  2018  2026
1.500
## Financial projections

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.

<table>
<thead>
<tr>
<th>No. of Countries</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>Market Size (no. of potential customers)</td>
<td>6K</td>
<td>21K</td>
<td>21K</td>
<td>21K</td>
<td>240K</td>
<td>240K</td>
<td></td>
</tr>
<tr>
<td>No. of units sold</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>Total Sales (Devices+ Subscriptions)</td>
<td>100</td>
<td>618</td>
<td>1210</td>
<td>2702</td>
<td>5420</td>
<td>9840</td>
<td></td>
</tr>
<tr>
<td>COGS</td>
<td>57</td>
<td>276</td>
<td>552</td>
<td>1150</td>
<td>2300</td>
<td>4140</td>
<td></td>
</tr>
<tr>
<td>Gross Profit</td>
<td>43</td>
<td>342</td>
<td>658</td>
<td>1552</td>
<td>3120</td>
<td>5700</td>
<td></td>
</tr>
<tr>
<td>Total Operating expenses</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>EBITDA</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>
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>

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