

"Everything we do, every thought we've ever had, is produced by the human brain. But exactly how it operates remains one of the biggest unsolved mysteries, and it seems the more we probe its secrets, the more surprises we find."

- Neil deGrasse Tyson



Problem: The annual effects of head impacts in N.A.

Undiagnosed & Untreated 4,000,000+ **Traumatic Brain Injuries**

\$100B+ Cost to the economy

~\$40B+ in athletics

~\$20B+ in the military



Negatively affects:

- o Reaction Time
- Balance
- Hand-Eye Coordination
- Focus & Memory
- **Decision Making**
- Awareness

Known to lead to:

- Suicide Depression
- o PTSD
- o ALS Parkinson's
- O ADD/ADHD
- Anxiety Mood swings
- o PCS
- Insomnia
- O BPD/BD
 - Schizophrenia Alzheimer's
- Dementia o CTE



Inadequate tools treat the symptoms instead of the cause

Impacts



Lack of

- ➤ Time
- ➤ Staff
- Money
- > Equipment
- Knowledge
- Communication

- ➤ Wellbeing
- > Performance
- Medical Costs
- > Insurance Costs
- ➤ Legal Liabilities



How we make cognitive load management simple

SaaS based on 100+ customer interviews, 100+ research publications

1. Player Profile Creation



Register in <15 minutes

- → Biometrics questionnaire
- → Physical measurements
- → Connect EHRs, fitness trackers, performance stats, etc.

2. Quantified Risk Assessment



Predictive AI

- → Considers physical + mental aspects
- → Identifies who's riskiest and why
- → Prevent serious injuries/illnesses

3. Customized Risk Mitigation



Web + Mobile App

- → Insights on player tendencies
- → Personalized, clinically validated exercises and strategies



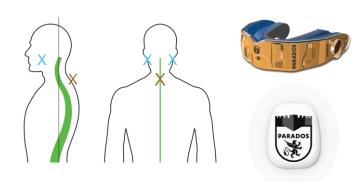


Performance optimizing wearables

For real-time insights on head impacts and player biomechanics

Smart Mouthpiece

Cervical Sensor



Design Advantages

- → Most accurate data collection method on the market
- → 3D printed for fit and breathability
- → Legal to use in-training and in-game
- → Avoids 'Risk Compensation Phenomenon'
- → Provides corrective feedback on biomechanics
- → Helps medical staff diagnose and treat

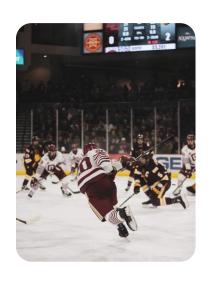


The first comprehensive solution

	Wearable + App Platform	Quantifies Injury Risk	Predictive and Mitigative	Considers physical + mental stressors	Analyzes head & neck biomechanics
PARAD@S	~	~	~	*	✓
Prevent Biometrics	~				X
Fitguard	~				X
Catapult	~				X



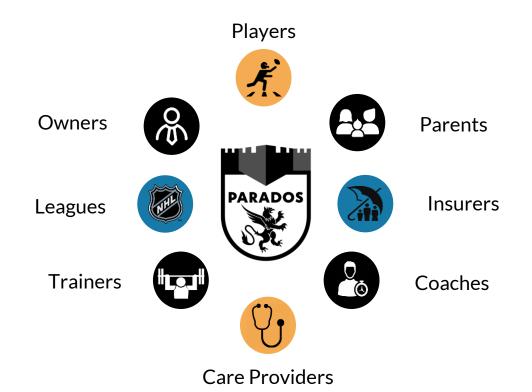
Benefits to Athletic Organizations



- ➤ Reduce missed games, time, money, resources by 50%
 - Salary/tuition, equipment, medical, insurance, etc.
 - Average savings of \$2 000+/player/year
- Keep top performers healthy
- Increase team performance
- Improve player recruitment
- Help protect against lawsuits



Ecosystem Beneficiaries

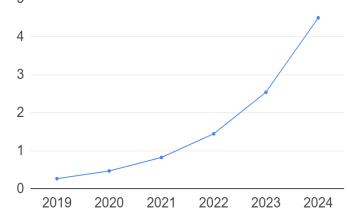


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Market Growth





Billions USD

*CAGR = **43.5**%, Source: Berkshire Hathaway





















Relevant CAGRs until 2025: 3D Printing Manufacturing ~ 35% Smart Wearables ~ 20% Sports Performance Training ~ 20% Digital Healthcare ~ 15% Mouthguards ~ 10%



Market Opportunity in 2022



TAM

N.A. Sports + Military Data Analytics for Health & Performance



SAM

Preventative SaaS plus wearable(s) solutions

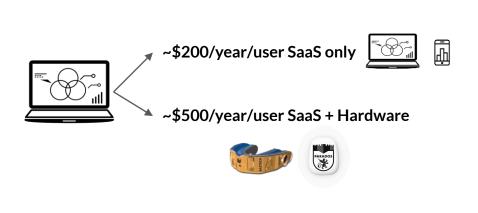


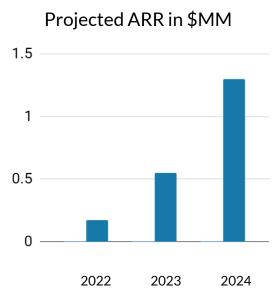
SOM

Obtainable market in highperformance contact sports



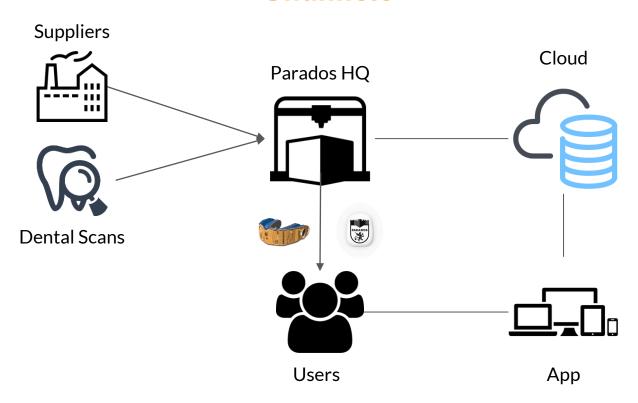
B2B Business Model







Channels





Data & IP Strategies

Data Security

- Private Cloud + Servers with PIPEDA, HIPAA, GDPR compliance Design considerations from NRC project with UNB's Dr. Mandal
- Security and Privacy by design

To protect players' privacy while giving organizations the information they need to make the best decisions

IP Protection

- Hardware designs as trade secrets and protected through state-ofthe-art encryption methods
- Patent Algorithms
- Trademark all related names, slogans, logos, etc.

^{*}All IP is currently owned and protected by Parados through NDAs & IP Agreements



Traction



Working with the CLFC



Since Feb 2020 Design Challenge Grand Prize

- Secured \$50k+ through pitch competitions and grants
- Accepted into 10+ incubators/accelerators
- Currently considering early adopters
- Projects with RPC, AIDA and Dr. Mandal completed
- MVP system developed using open-source software with 3rd party sensors



The Team



Pascal McCarthy
Founder, CEO
Engineering, Tech Management,
Former Pro Athlete



Nayeli Marcial COO Mechatronics Engineering, Biomechanics



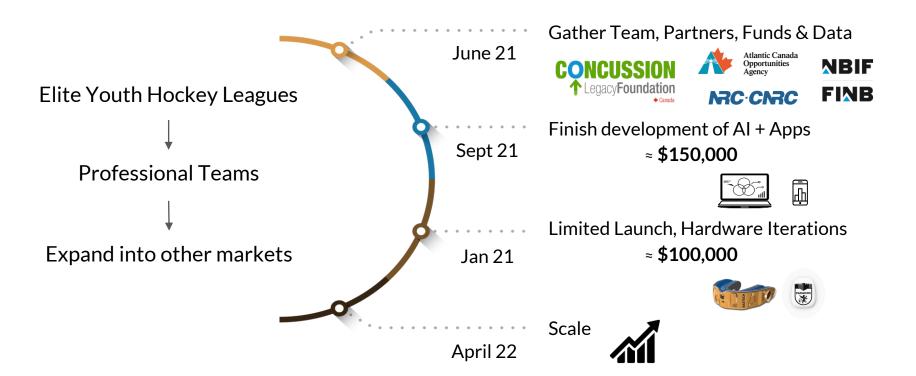
Houlie Duque Sales & Marketing Lead B2B Sales, Marketing, HR & PR Specialist



Norbert Demps Interim CTO Experienced Cloud Specialist, Software Engineer



The Road Ahead



The Ask



Thanks to non-dilutive funds, we have an Android-based full system MVP developed, designs for the next stage of development ready and early adopters waiting to test the platform.



Currently raising \$250 000 to give us a runway of 1 year with the talent needed to launch the entire system.



Looking for strategic investors with connections and experience in this space to help accelerate our growth.

It's time to pay closer attention to our most important organ





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