



PRECISION COACHING

FROM FIRST SWING TO CHAMPIONSHIP



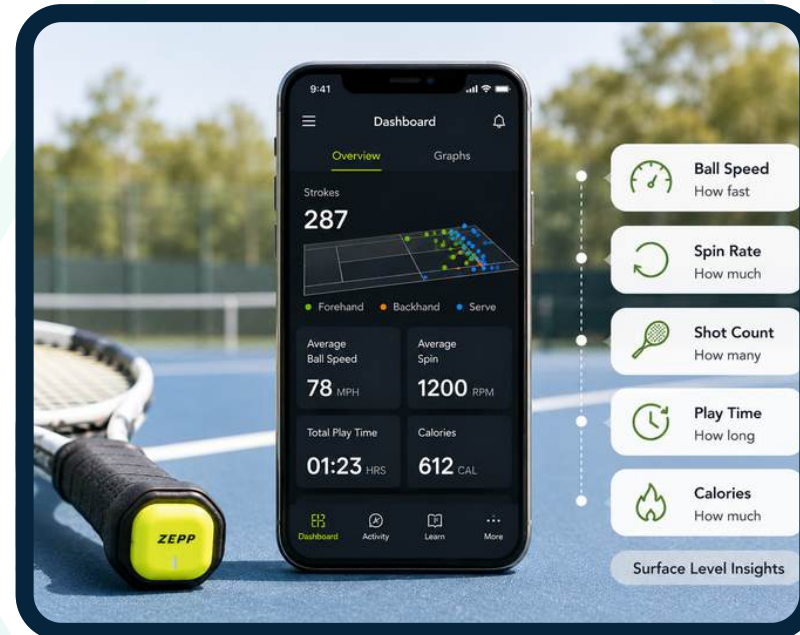
MARKET GAP



A **wearable biomechanics platform** for **swing-based sports**, starting with tennis coaching



Coaching remains mostly visual



Consumer sensors give shallow metrics



Biomechanics labs are too expensive



No scalable coach-first platform

Existing Solutions don't offer any assistant to club level coaches to improve player's core biomechanical parameters

THE SOLUTION

We are bringing sports-lab level biomechanics analysis to club-level coaching

Coaching Platform That looks deep into BioMechanics

- Help coaches to analyze performance, and keep track of improvement over time
- Support the coach, not replace the coach => **Coach-controlled analysis**



THE PRODUCT



The workflow;



THE PRODUCT



REAL-TIME DATA

Capture every shot instantly



PERFORMANCE INSIGHTS

Understand strengths and improve faster



TRACK PROGRESS

Monitor improvement over time

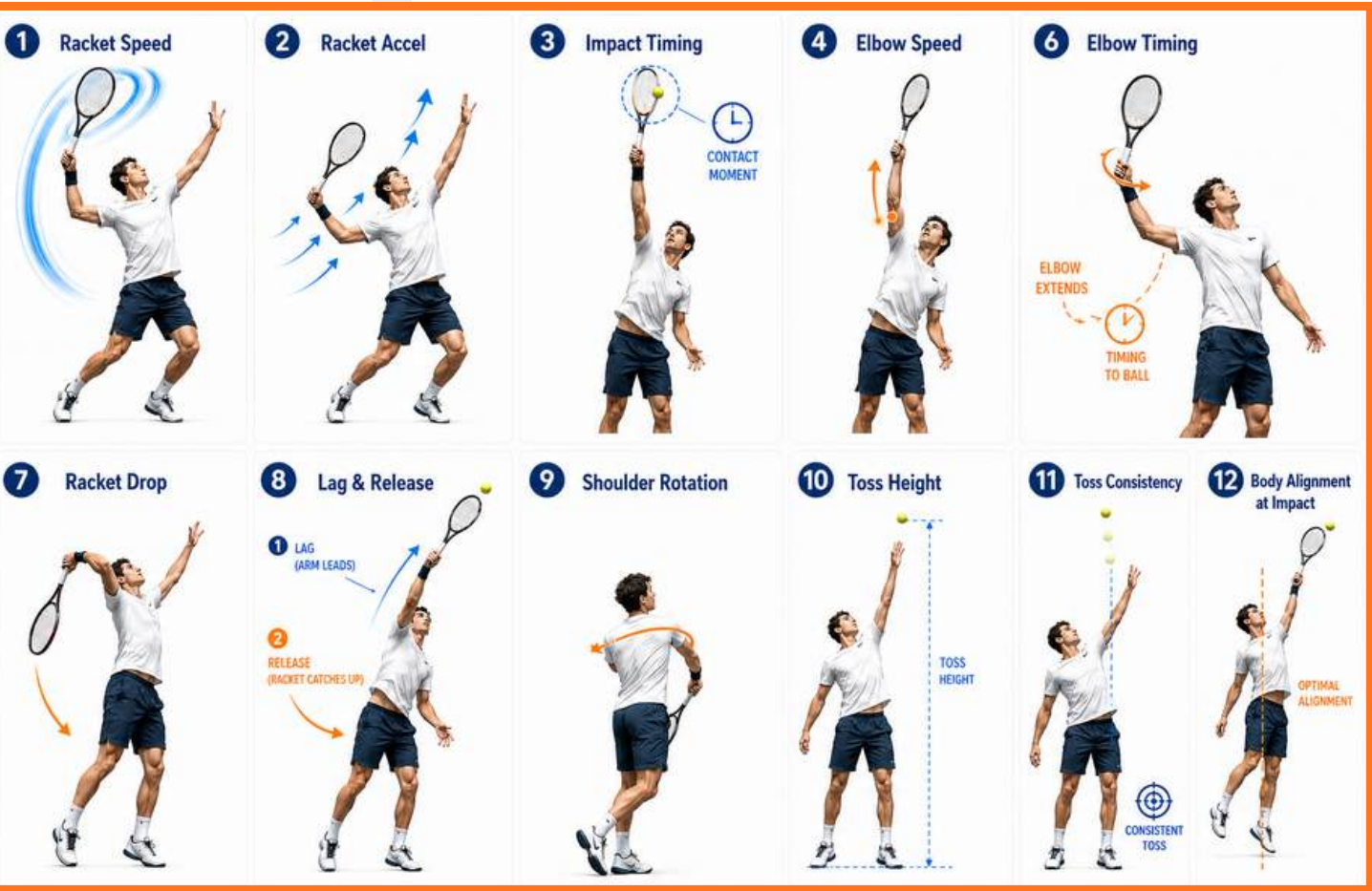


COACH & PLAYER CONNECTED

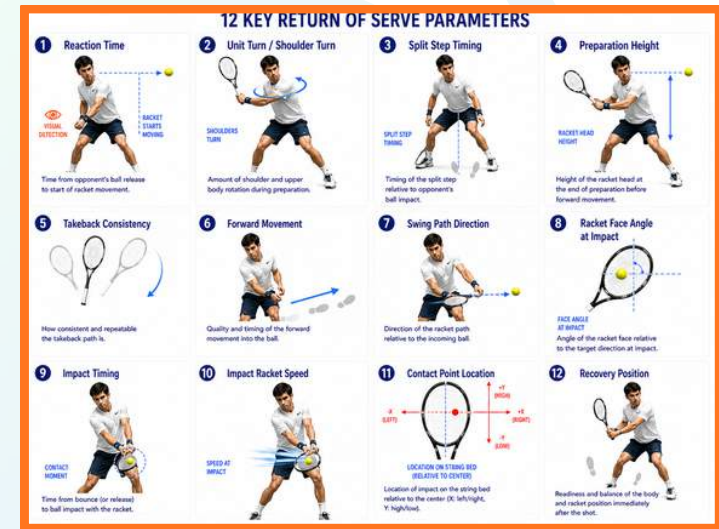
Share data, align goals and win together



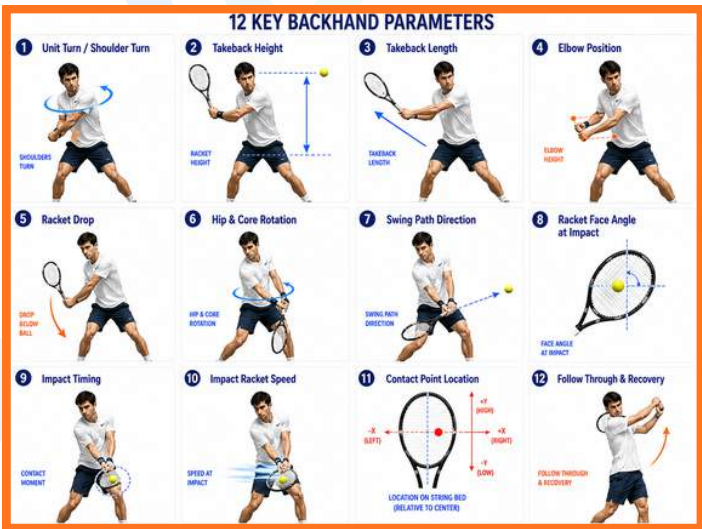
BIOMECHANICAL INSIGHTS



SERVE



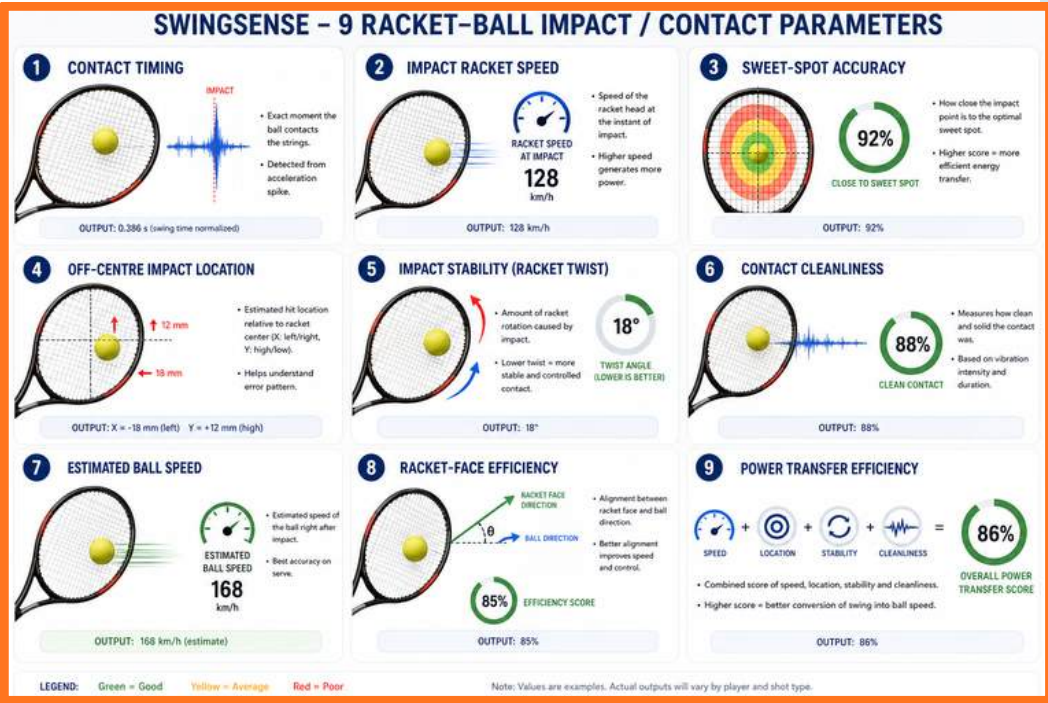
RETURN OF SERVE



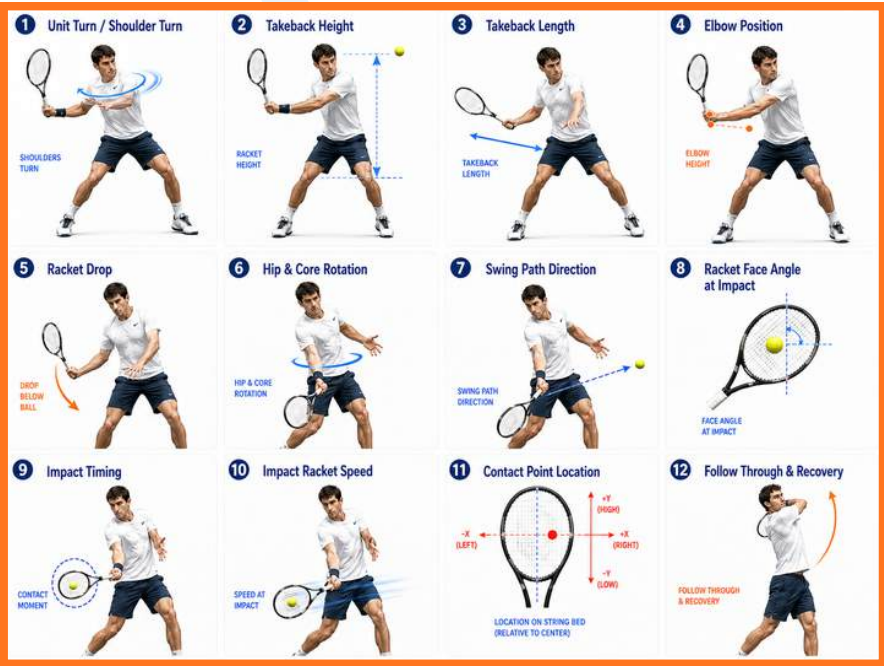
BACKHAND



COACH INSIGHT



RACKET PARAMETERS



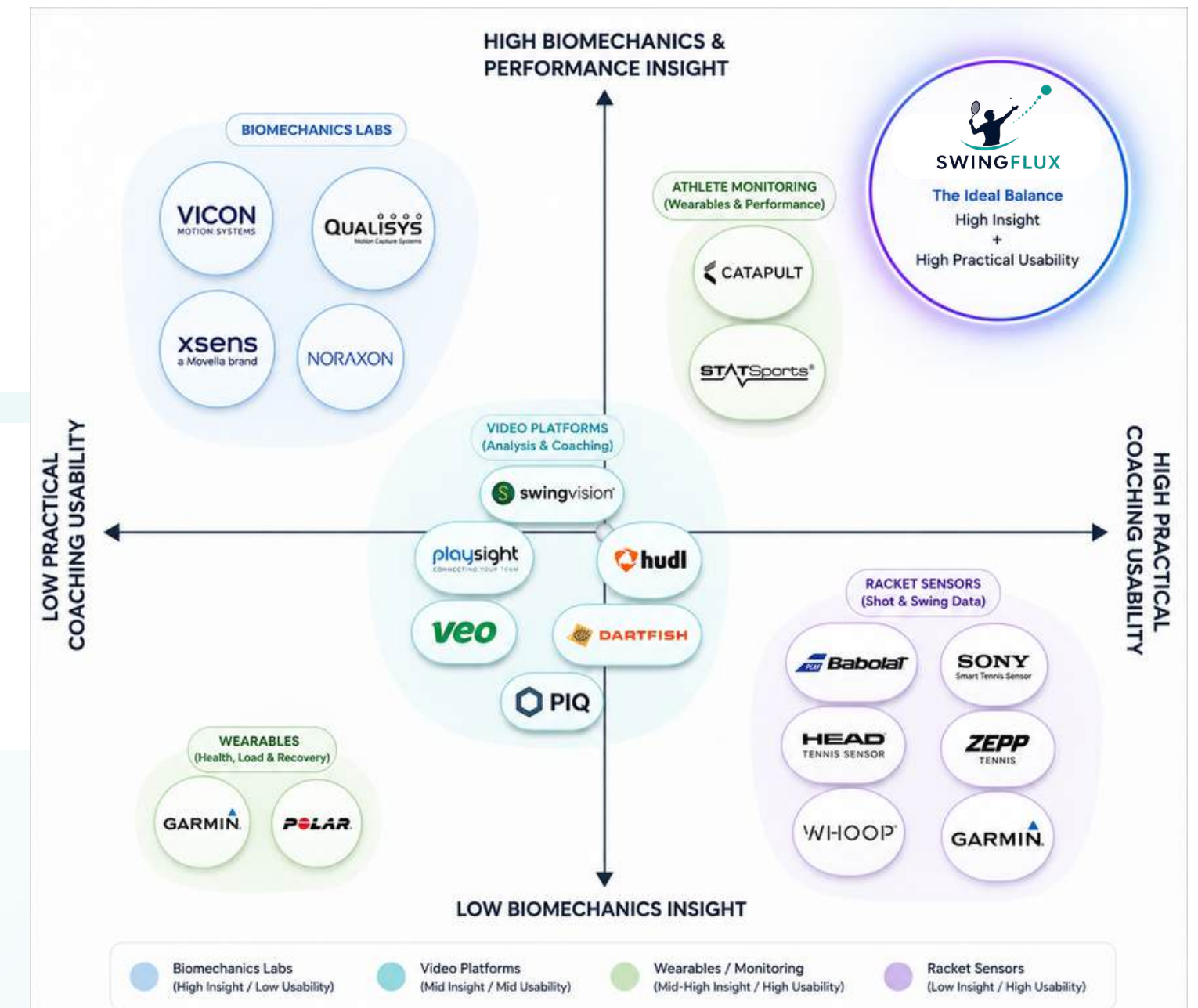
FOREHAND

SWINGFLUX USP



Key Comparison Point	SwingFlux	SwingVision	Babolat / Sony Sensors	Zepp Tennis
Technology Type	Wearable biomechanics sensing	AI video analysis	Racket-mounted sensors	Racket motion sensor
Tracks Body Movement	✓ Yes	⚠ Visually only	✗ No	✗ No
Tracks Racket Movement	✓ Yes	⚠ Estimated from video	✓ Yes	✓ Yes
Arm + Racket Relationship Analysis	✓ Yes	✗ No	✗ No	✗ No
Biomechanics Insight Depth	✓ High	⚠ Medium	✗ Low	✗ Low
Real-Time Coaching Feedback	✓ Yes	✓ Yes	✓ Basic metrics	✓ Basic metrics
Coach-Centric Workflow	✓ Designed for coaches	⚠ Partial	✗ Mostly player-focused	✗ Mostly player-focused
Camera Dependency	✓ No	✗ Yes	✓ No	✓ No
Portable Daily Training Use	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Fatigue / Motion Consistency Analysis	✓ Planned capability	⚠ Limited	✗ No	✗ No
Training Intelligence Level	✓ Advanced	⚠ Moderate	✗ Basic shot metrics	✗ Basic shot metrics
Main Limitation	—	No true biomechanics sensing	Only racket data	Only racket data

Product Positioning:



**** Broad patent filed for hand+racket sensor based biomechanical analysis**

Launch Timeline

Precise 6-month rollout plan



CURRENT PROGRESS



AI-Native super-fast development timeline

In-house Developed IMU Platform



✓ COMPLETED

- ✓ Concept defined
- ✓ IMU platform ready
- ✓ Product architecture set
- ✓ Biomechanics mapped
- ✓ Key metrics selected
- ✓ Market analysis done
- ✓ Business model drafted
- ✓ Synthetic data validated
- ✓ Patent filed
- ✓ Website launched

🕒 IN PROGRESS

40%

Production hardware development

40%

80%

App UI development

80%

80%

App backend development

80%

👥

Coach discussions

◯ PENDING

- ◯ App QA / QC testing
- ◯ Real-player validation
- ◯ Product certification
- ◯ Bulk production
- ◯ Launch marketing
- ◯ Product launch



Strong early progress already achieved across concept, sensing platform, biomechanics, market planning, IP, and digital presence.

Current focus is completing production hardware, finalizing the app, and validating the system with coaches and real players.

BUSINESS MODEL



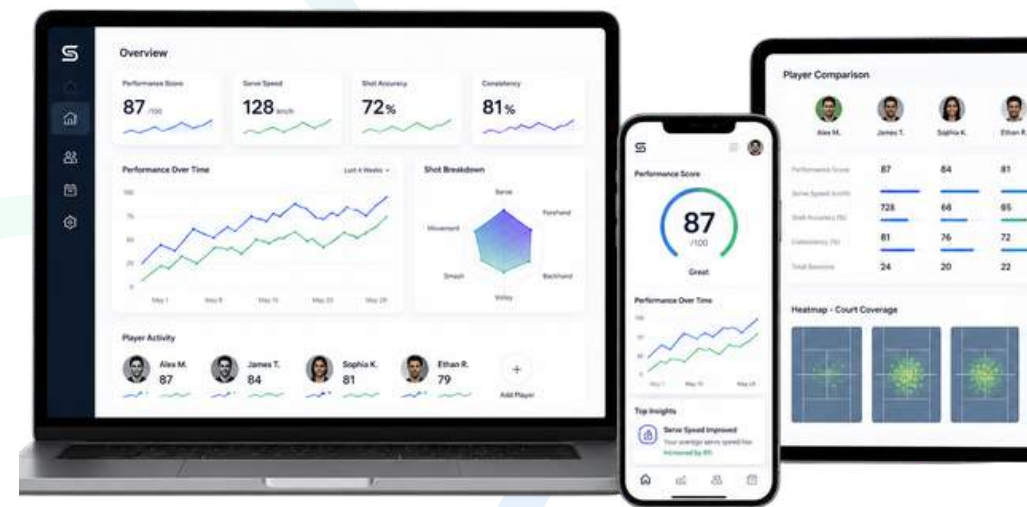
Multiple revenue streams:

1. Hardware Sales



- Starter Kit (coaches)
- Academy Kit
- Pro Analytics Kit

2. Monthly Subscription



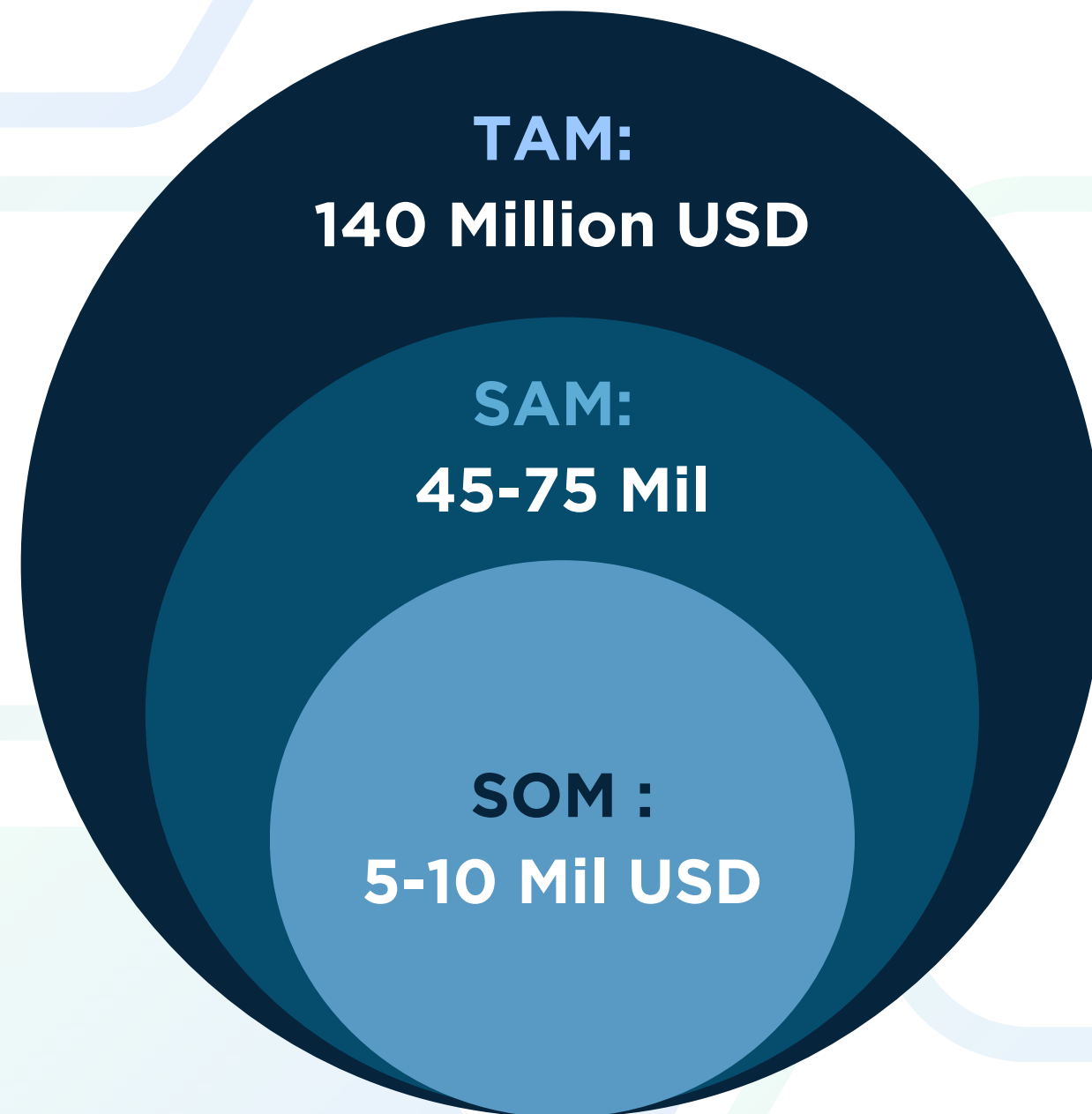
- Analytics platform
- Player tracking
- Advanced insights

3. Enterprise / Academy Licensing



- Multi-player dashboards
- Reporting tools
- Custom analysis
- Custom hardware

MARKET SIZE & GROWTH



TENNIS MARKET SIZE

Adjacent Markets with Same Hardware Kit

- Golf swing analysis - extremely similar
- Cricket batting analysis - extremely similar
- Other racket sport coaching
- Racket sports full match recording and analysis



Global Sports Technology Market Growth



Note: SwingVision annual revenue > 4M USD

GO-TO-MARKET STRATEGY



Early adoption by performance coaches builds credibility and validates the product.



Pilot programs with leading academies demonstrate measurable impact.



Improved performance drives player demand and word-of-mouth adoption.



Hardware sales combined with SaaS subscriptions create sustainable growth.



Ambassadors and success stories strengthen the ecosystem.



Distribution partners and multi-sport expansion accelerate worldwide growth.

ADJACENT OPPORTUNITIES (SAME HARDWARE)



>> One reusable biomechanics platform powering multiple global coaching ecosystems.



Golf

60M+ active golfers



Cricket Batting

2.5B+ fan/player ecosystem



Cricket Balling



Badminton

300M+ players worldwide



Baseball

65M+ players globally



Squash

20M+ players worldwide

TEAM AND PARTNERSHIPS



STRATEGIC PARTNERS



Kosala
Engineer
Founding CEO
ExcelTech / DiabSense



Prof. Jayamini
Sports Science Expert
Edge Hill Uni., UK



Sanjaya
Strategic Advisor
VC, Founder & Mentor

ENGINEERING DEVELOPMENT PARTNER



www.exceltch.com

20+

Core Eng.
Team

60+

Full
Team

25+

Customer
Base

30+

Projects
Delivered
Per Year

~0.6M

Annual Turnover



INVESTMENT ASK



We are raising **260k** USD (84 Million LKR) for bulk production and launch of SwingFlux globally.

Commercial Build, Field Testing and Certification	123,000 USD
Commercial Build, Reliability Testing, Molding and bulk tooling	40,000
Product Certification (CE / FCC / UN38.3)	18,000
Admin, team and operational expenses	30,000
Field Testing & External Consultancy	25,000
Miscellaneous	10,000

Bulk Production, Marketing and Go-to-market	137,000 USD
Initial Commercial Production (500 starter, 20 academy, 1 pro kits)	92,000
Go-to-market, Launch and Customer Acquisition	45,000

Rolling investment, with 25k minimum ticket size

Thank You ... !!!



Join us,
to revolutionize how tennis is coached...!!!

ADDITIONAL INFORMATION

WHY SWINGFLUX WINS?



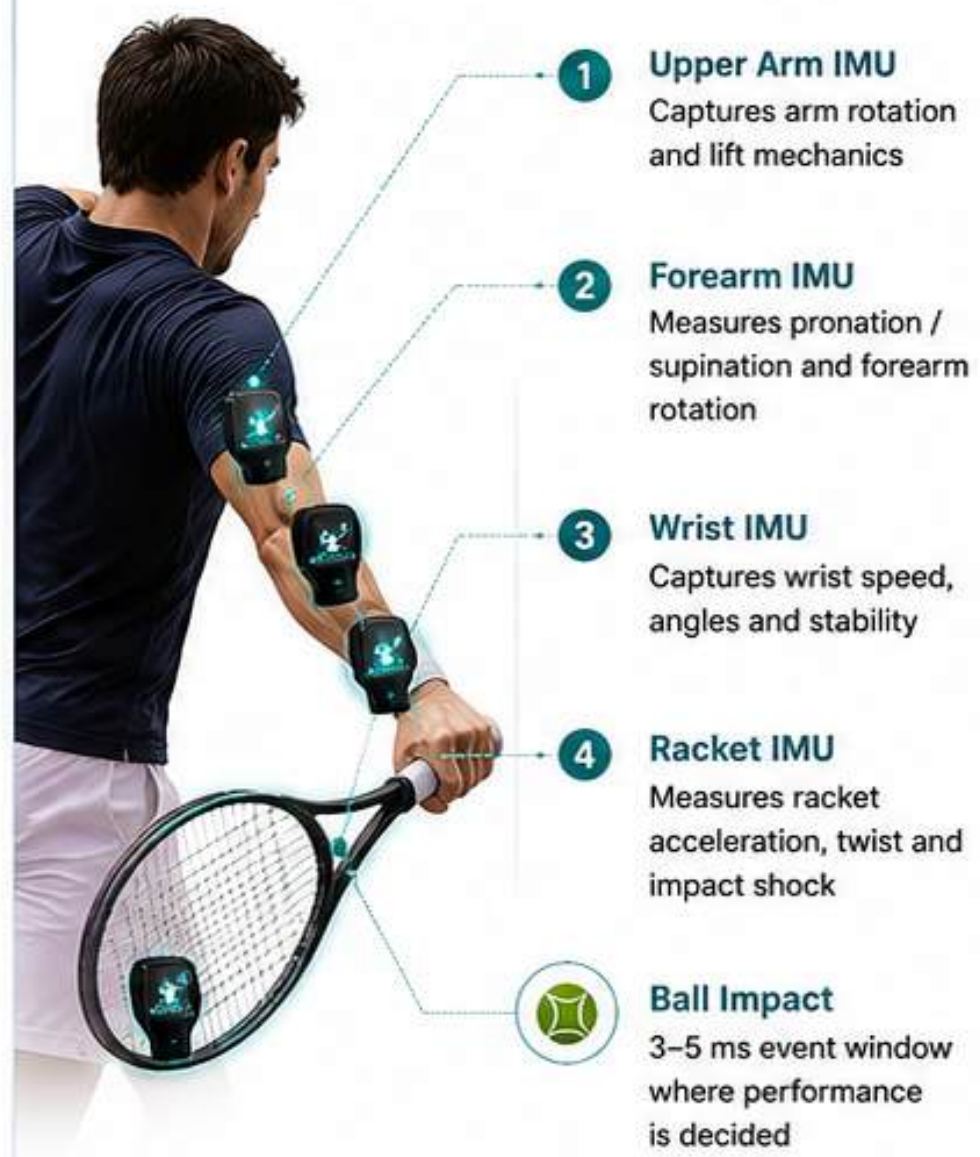
Existing Solutions Fall Short	SWINFLUX 4-IMU Architecture	WHY it matters
 CAMERA + AI SYSTEMS • Indirect motion estimation • Lighting issues • Fixed setup requirements  RACKET SENSORS • Measure outcomes only • Limited biomechanical understanding  BIOMECHANICS LABS • High accuracy • Expensive and impractical • Not suitable for everyday coaching	 500 Hz High frequency capture  CAMERA estimates movements  SWINGFLUX measures movements • Direct motion measurement • 500Hz sensor sampling • Captures critical impact events • Real Time biomechanics analysis • Works on any court • Wear and Play	 FOR COACHES • Objective player evaluation • Data driven coaching decisions  FOR PLAYERS • Measurable improvements • Personalized performance feedback  FOR ACADEMIES • Premium training programs • Differentiated coaching services  BUSINESS POTENTIAL • Hardware + SaaS model • Recurring subscription revenue • Multi-sport expansion opportunity

SCIENTIFIC ADVANTAGE OF THE SWINGFLUX 4 IMU ARCHITECTURE



1. THE HUMAN KINETIC CHAIN

What SwingFlux Measures



KEY INSIGHT

Tennis performance is the result of a kinetic chain. Small changes in the arm and wrist mechanics significantly influence racket speed, consistency and shot quality.

2. SCIENTIFIC COMPARISON

MOTION CAPTURE PRINCIPLE

CAMERA SYSTEMS



- Observe motion externally
- Estimate movement from pixels
- Sensitive to lighting and occlusion
- Lower temporal resolution

VS

SWINGFLUX IMUS



- Measure motion directly at the source
- Capture acceleration and angular velocity
- Independent of lighting or camera angle
- High temporal resolution

IMPACT EVENT CAPTURE

Ball-Racket impact duration: ~3-5 ms



SYSTEM	FRAME / SAMPLE RATE	TIME RESOLUTION	ABILITY TO CAPTURE
120 FPS Camera	120 frames / sec	8.3 ms / frame	✗
240 FPS Camera	240 frames / sec	4.2 ms / frame	✗
SwingFlux IMU	500 samples / sec	2.0 ms / sample	✓



Captures impact dynamics



Captures racket shock & vibration



Captures swing acceleration peaks

3. BIOMECHANICS INTELLIGENCE

METRICS ENABLED BY SWINGFLUX



Wrist Angular Velocity
Peak speed and control during acceleration



Forearm Pronation / Supination
Efficiency of energy transfer to the racket



Swing Tempo & Rhythm
Timing, sequencing and coordination



Swing Consistency
Repeatability of key motion patterns



Impact Shock Analysis
Magnitude of shock transmitted at impact



Racket Twist Detection
Racket face stability and off-center hits



Kinetic Chain Efficiency
Energy transfer from body to racket



Technique Pattern Recognition
Identify strengths and technical flaws

KEY SCIENTIFIC ADVANTAGE



Cameras observe movement from outside the body.



SwingFlux measures movement directly within the motion chain where performance is generated.

COMPARISON OF IMU VS HIGH-SPEED CAMERA



Usefulness by Parameter Type

IMU Based Solution vs. Camera Based Solution (120 fps)



Measure What Coaches Can't See

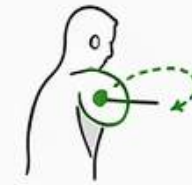
Parameter Category	 IMU Based Solution Usefulness for Coach	 Camera Based Solution (120 fps) Usefulness for Coach	 Winner
 Racket-head speed proxy	Very high	Medium	IMU
 Racket acceleration into impact	Very high	Low-medium	IMU
 Impact timing consistency	Very high	Medium	IMU
 Racket stability / twist at impact	Very high	Low	IMU
 Elbow extension speed	Very high	Medium	IMU
 Forearm pronation / supination timing	Very high	Low	IMU
 Arm-to-racket lag / release timing	Very high	Medium-low	IMU
 Post-impact deceleration / load proxy	Very high	Medium	IMU
 Racket drop depth / timing	High	High	Close
 Backswing size / compactness	High	High	Close
 Swing-plane consistency	High	High	Close
 Low-to-high topspin signature	High	Medium-high	IMU
 Follow-through shape	High	High	Close
 Drive vs slice / block vs drive classification	High	High	Close
 Visible body posture / footwork / balance	Low-medium	Very high	Camera
 Ball toss visual consistency	Low	Very high	Camera
Court position / player setup	Low	Very high	Camera

THE TECHNOLOGY

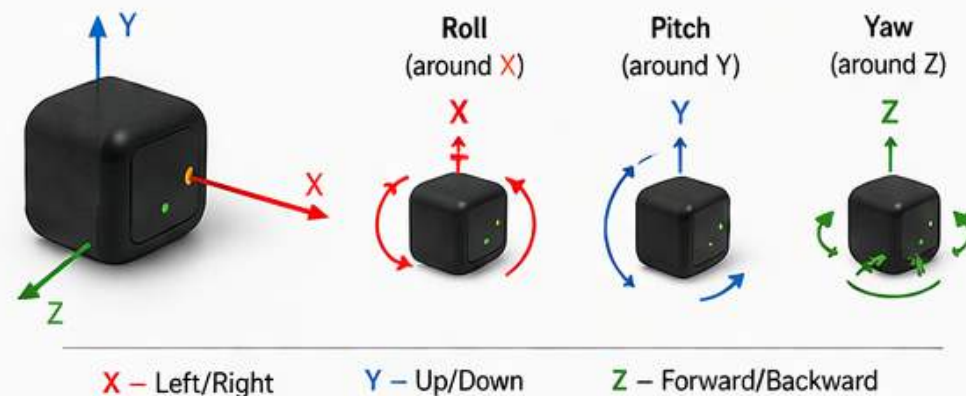
4-IMU ARM + RACKET SYSTEM FOR TENNIS BIOMECHANICAL ANALYSIS

Measure rotations, angular velocities and racket dynamics through the kinetic chain

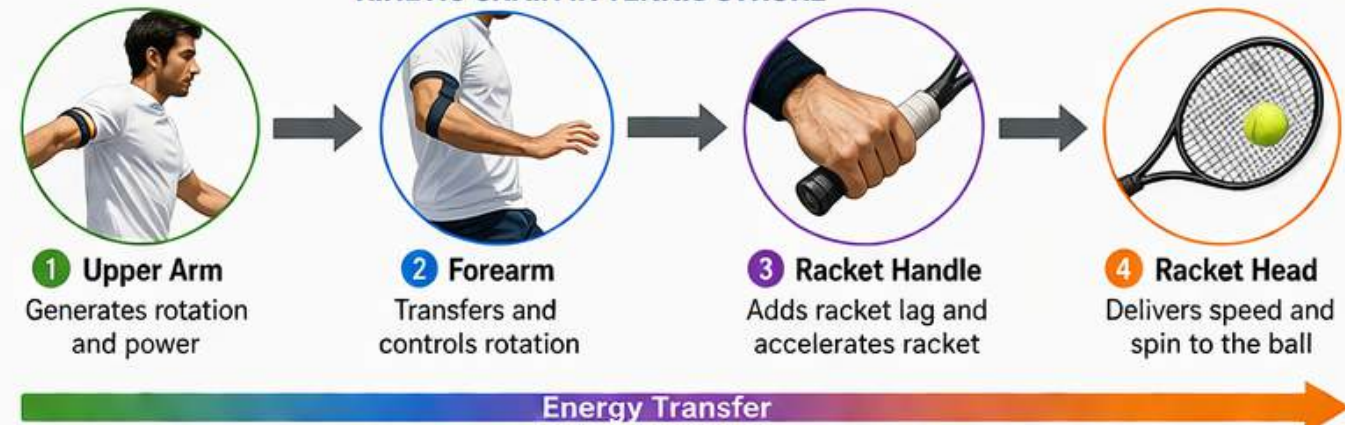


1		IMU 1 – Upper Arm - Shoulder rotation (internal/external) - Upper-arm swing plane - Shoulder angular velocity - Arm elevation/adduction 
2		IMU 2 – Forearm (Lower Arm) - Elbow extension speed - Forearm pronation/supination - Wrist side-to-side motion (proxy) - Forearm angular velocity 
3		IMU 3 – Racket Handle (Base) - Racket orientation in space - Handle angular velocity - Racket lag (wrist + forearm) - Impact timing (proxy) 
4		IMU 4 – Racket Throat / Head Side - Racket-head speed (proxy) - Racket face rotation - Impact vibration / shock - Difference between handle and head motion (whip effect) 

IMU AXES AND ROTATIONS (Right-Handed System)



KINETIC CHAIN IN TENNIS STROKE



Using 4 IMUs across the arm and racket allows coaches and athletes to quantify segment rotations, timing, sequencing and racket dynamics in real time, enabling **data-driven technique improvements and performance optimization**.