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# Decentralized Sports Data Economy

A presentation by  
Thomas Wüthrich and Florian Nöll  
with the support by Martin Rumo

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A professional basketball game in progress, featuring players from the USA and Spain. The USA player is in a dark blue jersey with the number 11, and the Spain player is in a white jersey with the number 15. The background shows a basketball court with various advertisements like 'SSOT SINCE 1853', 'KRONENBERG', and 'JUBU ELEKTRIC'.

**Professional Sports**

**Why Should You Even Care?**

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# 700 billion

Expected market size of the global sports industry by 2026 in USD

With annual growth rate of 41.3 percent (2021 - 2026)

Source: <https://www.statista.com/statistics/370560/worldwide-sports-market-revenue/>

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**Sport is Big Business**

**And People Are Watching!**

(so there is **value** and a **big stage** to showcase technology)

# Houston We Have ~~a Problem~~ an Opportunity (for Web3)



Decreasing  
trust in sports  
organizations  
by athletes



Extensive  
value drain  
and  
inefficiency



Growing  
pressure for  
good data  
governance

# Meet The Athlete



“We feel left out when it comes to the use and monetization of our data”

“Data can affect our position in contract negotiations”

“We can only grow together - knowing that more invasive data is to come”

“No consent, no data”

Source: Jonas Hiller, President, Swiss Ice Hockey Player Union (Personal Communication)



# Project Red Card

Hundreds of former and current **soccer players in the United Kingdom** are suing sportsbooks and data-processing companies, claiming that they have **illegally profited** from player statistics.





# Decreasing Trust in Sports Organizations by Athletes

Sports data just like any personal data **can be sensitive**.

The athlete community's concerns about the **lack of transparency** in the handling and monetization of data is on the rise as evidenced by **growing conflicts**.



spor|tradar
|  |

x 1.8\*

ATHLETES  
(UNION)



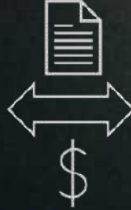
ITF  
International Tennis Federation

WORLD RUGBY

DATA PROVIDER

IGF  
INTERNATIONAL GOLF FEDERATION

FIH



DATA RIGHTS PARTNER  
+ additional analytics services

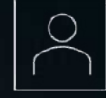


DATA CONSUMER

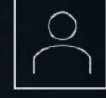
Performance & Health  
Entertainment



Broadcaster



Publisher



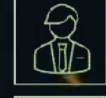
Bookmakers



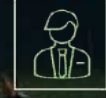
Teams



Scouts



Analysts



Insurance

\* Based on avg. gross profit margin: 80%, source: <https://finance.yahoo.com/quote/SRAD/financials?p=SRAD>

# Source: <https://www.marketsandmarkets.com/Market-Reports/sports-analytics-market-35276513.html>

# Meet the Federation

"The fundamental issue is the centralisation of the **media and broadcast rights** which is necessary for **taking control of our destiny again** and lay the foundation for the growth and prosperity of all our disciplines everywhere."

Johan Eliasch, FIS President

Source: <https://www.insidethegames.biz>



A person's legs and feet in athletic gear are visible in the background, running on a track. In the foreground, a hurdle is positioned on the track. The scene is dimly lit, with a strong shadow cast across the track.

# Extensive Value Drain and Inefficiency

The current sports data ecosystem using centralized “data brokers” suggests **lost revenue potential for sports** organizations and their athletes.

The sport data business comes with **large operating expenses** and providers struggle achieving net profitability.

# Fair Digital World

The **EU strategy for data** focuses on **putting people first** in developing technology, and defending and promoting **European values and rights** in the digital world.





# Pressure for Good Data Governance is Growing

Our society lives in the **era of data** and the economy is increasingly data-driven. But today's paradigm of data intransparency, misuse, security breaches and the prosperity of a few extractive institutions has led to **decreasing trust by society**.

Regulators respond with new **more stringent regulatory frameworks** regarding data governance, access and use.



**How does the sports data industry find a balance between user privacy, data control, transparency and efficient value extraction from data?**



# We Need a New Paradigm!



Build  
Trust by Design

(make it transparent &  
athletes your partners)



Maximize Value  
Generation

(skip middlemen,  
automate &  
standardize)



Foster Innovation  
for better products  
(make data accessible)

# Meet Darius

“Willis Sports Organization is a **recruitment platform** that helps streamline the recruiting process through a powerful **digital platform** that combines **data, training, and events.**”

“**Verified & endorsed data** is key to my business”

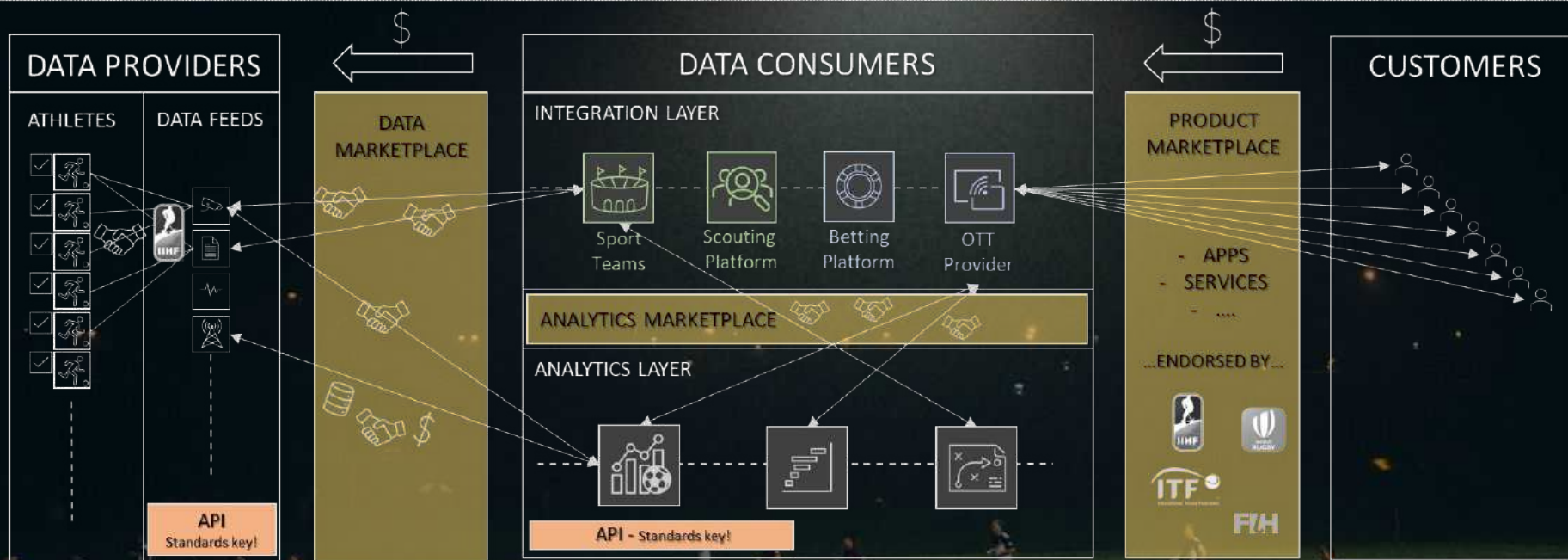
Darius Willis, Founder & CEO Willis Sports Org.

Source: Personal Communication



# The New Sports Data Value Network

Share and Access Authentic Sports Data on a **Fully Automated Marketplace**



# Web 2.0 Value Chain

## Web3 - A Promise

“Web3 is the internet **owned by the builders and users**, orchestrated with tokens”

Packy McCormick

“**More robust and efficient** digital infrastructures...”

“**Reduction of dependencies...**”

Jan Bieser and Daniel Fasnacht, GDI Blockchain Studie 2023



# Web3 Value Chain



not boring

# Web3 Technology as Key Enabler



**Blockchain;**  
**Transparency** by design and operated based on **incentives** & economic mechanisms



**Tokenization;**  
Digital representation of assets whose **ownership rights** need protection and **access** control.



**SmartContracts;**  
**Automation** of business processes



**Self-sovereign identity;**  
Trusted authorities that **verify authenticity** (of identities and assets)



**Open Source;**  
lower starting costs, more flexible and easier licences management for **scalability**



# The New Paradigm - It's Happening in Web3

**An Open-  
Source  
Community  
Marketplace for  
Data**



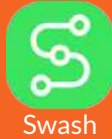
<https://market.oceanprotocol.com/>

**An open source,  
crowdfunded,  
decentralized  
platform for  
real-time data  
streams.**



<https://streamr.network/marketplace>

**A network of people  
in a data union that  
take ownership over  
their browser data  
and receive income  
from the profits it  
generates.**



<https://swashapp.io/>

*A selection amongst many...*





# Decentralised Sports Data + Analytics Marketplace

(inspired by existing Web3 solutions)

# The Vision

Decentralised Sports Data is the **go-to marketplace** for sports data consumers.

By design it ensures a high degree of **automation**, **good governance** and **fair value distribution** - for **sport by sport!**



Sports


All Soccer Cricket Tennis American Football Basketball **Ice Hockey** Rugby Union Rugby League Handball Golf Volleyball Badminton × Clear filters

Products

All Live Streams Visualisations **Stats & Scores** **Insights & Facts** Previews & News Line-ups & Injuries Analytics × Clear filters


More Filters 26 Results | Sort by **Data** Analytics

**#Live**




**IIHF U20 World Championship 2023**  
Subscribe to real-time official game stats for your data service

**#Historic**




**IIHF U20 World Championship**  
Subscribe to hundreds of games, goals etc. since the inaugural season in 1974

**#Live**



**IIHF U20 World Championship**  
Advanced Tracking Data

**#Live**



**IIHF U20 World Championship**  
Subscribe to biometric player data such as heart rate etc.

#Historic #New #Historic #Historic

A Fully Automated Marketplace for Sports Data & Analytics Products

# Next Steps



**Sport Hackdays**



IIHF Blockchain Challenge



**"THE SPOT" 2023**

"Hello Sport + Tech World" -  
Building an Autonomous  
Data Economy in Sport

**MVP IIHF -> Innosuisse?**

Build a prototype for the  
IIHF U20 WC Jan 2024?  
=> Scouting Use Case



WORLD JUNIOR  
CHAMPIONSHIP  
SWEDEN  
Gothenburg

2022

2023

2024

**Master Thesis HSLU**

Simulating a self-governed  
open sports data economy

**HSLU** Hochschule  
Luzern

**NTN Innovation  
Booster (tbc)**

NTN INNOVATION BOOSTER  
**SPORT &  
PHYSICAL  
ACTIVITY**



**EPFL**

*Unil*



# Key Takeaways

## Empowerment of Sport Stakeholder

A **self-governed data economy** enables athletes and sport organisations to **take control of their data** and monetize it on their own terms. This puts them in the **driver seat** allowing them to earn money from their data and decide who can access it.

## Increased Data Accessibility

By creating a **decentralized sports data marketplace**, the new paradigm increases **accessibility to valuable data** for data consumers. This enables data consumers to come up with better, **more innovative data services** for their customers.

## Automation, Trust and Transparency by Design

**Blockchain technology** ensures that transactions are **affordable, secure, transparent, and trustworthy**. This increases trust between all stakeholders, and promotes a fair and equitable system for all parties involved.