

WISEHOCKEY
■ A game changer

WISESPORT
■ A game changer

Miska Kuusisto 2024



Why Wisepoint analytics changes the game?

Widely in daily use, over **2000 professional hockey** and **800 youth football** games per year

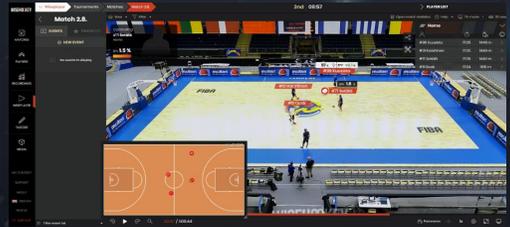
Next-generation **real-time data** asset others cannot provide

(Any) Coordinate information turned into **reliable stats**

Real-time API for entertainment and betting

Turnkey solution **without manual work**

Coordinates into real-time statistics



WISESPORT[®]
REAL-TIME SPORTS ANALYTICS

LIVE TV

BETTING

APPLICATIONS

WEBPORTAL

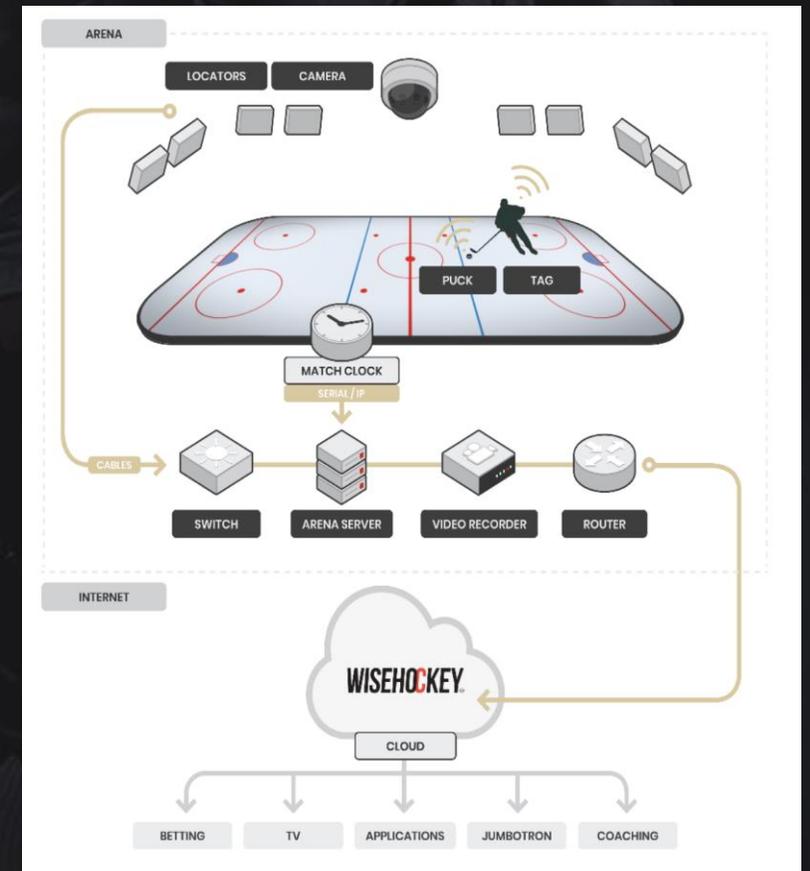
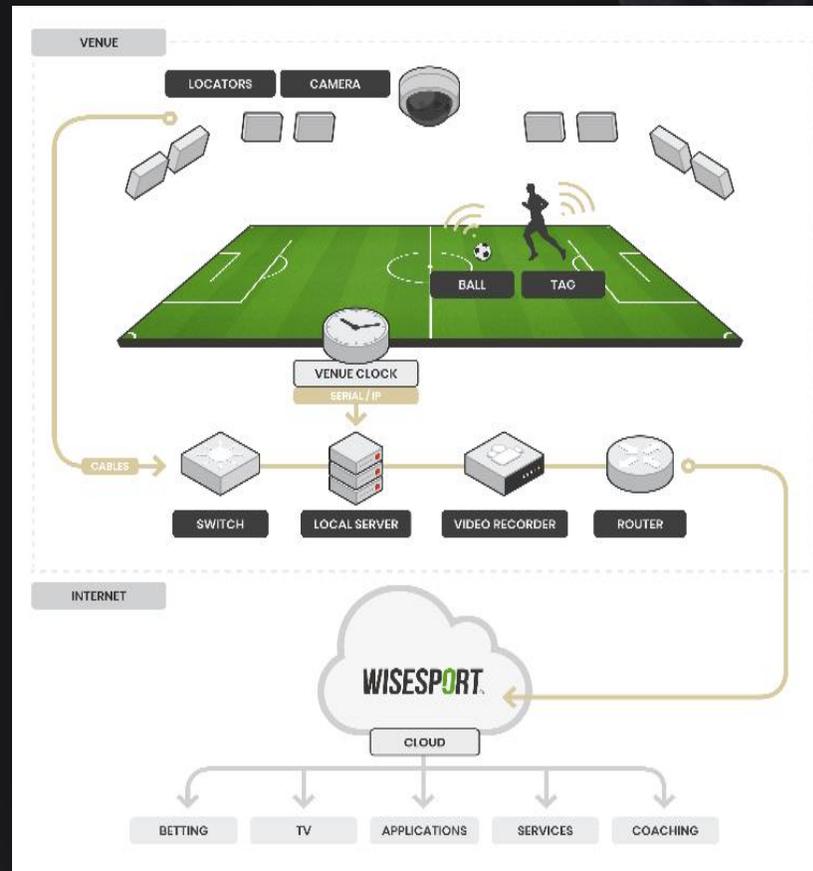
today: 0.42
win percentage: .48
3rd most turnovers today
average shift length
er this week
forward pass distances:
better than
team play performance
time spent in offensive zone: 9:44
average control speed: 17.8 km/h
screened shots: 2
XG: 0.51
speed: 115,62 km/h
wins: 21/48
trying distance: 216 m



Same system setup indoors/outdoors

One-time installation

- Robust & simple setup, no maintenance needed
- 24/7 fully automated system
- First system has been continuously working since 2017



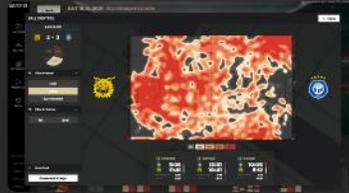
FULL E2E SERVICE PLATFORM

WISEHOCKEY[®] — ANALYTICS —

Scalable microservice architecture

E2E System management

Fully automated, no personnel at arena



B2B/C Services

Digital media, TV, betting and more



Statistics

Fully automated and real-time

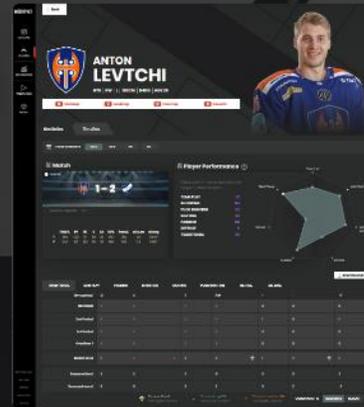


Real-time API

For 3rd party solutions

Game modeling

Automated model from coordinates



Object tracking

Chip-based real-time positioning

Betting

Media

Performance

Leagues

Associations



WISEHOCKEY MILESTONES



Finnish Ice Hockey Association



All Liiga Games



All Norwegian league games



IIHF Worlds (WM, WW, U20, U18)



All KHL Games



Official EHC partner



All DEL Games

Real-time API for betting & TV

First Official KHL Game



Finnish Football Association

First betting game



Full football championship series



2017

2018

2019

2020

2021

2022

2023

First official game

1000 games

2000 games

4000 games

10000 games

First smart puck

First smart ball

20000 smart pucks

WISEHOCKEY
— ANALYTICS —

WISESPORT
— ANALYTICS —

Object tracking

Game modeling

Full leagues

Game modeling

- ⊗ Football / Soccer
- ⊗ Basketball
- ⊗ Baseball
- ⊗ Floorball

Team development

Scouting

What makes difference?

System is fully automated and real-time

- Robust league management without manpower
- Next gen video clipping with data included

Measures are always comparable

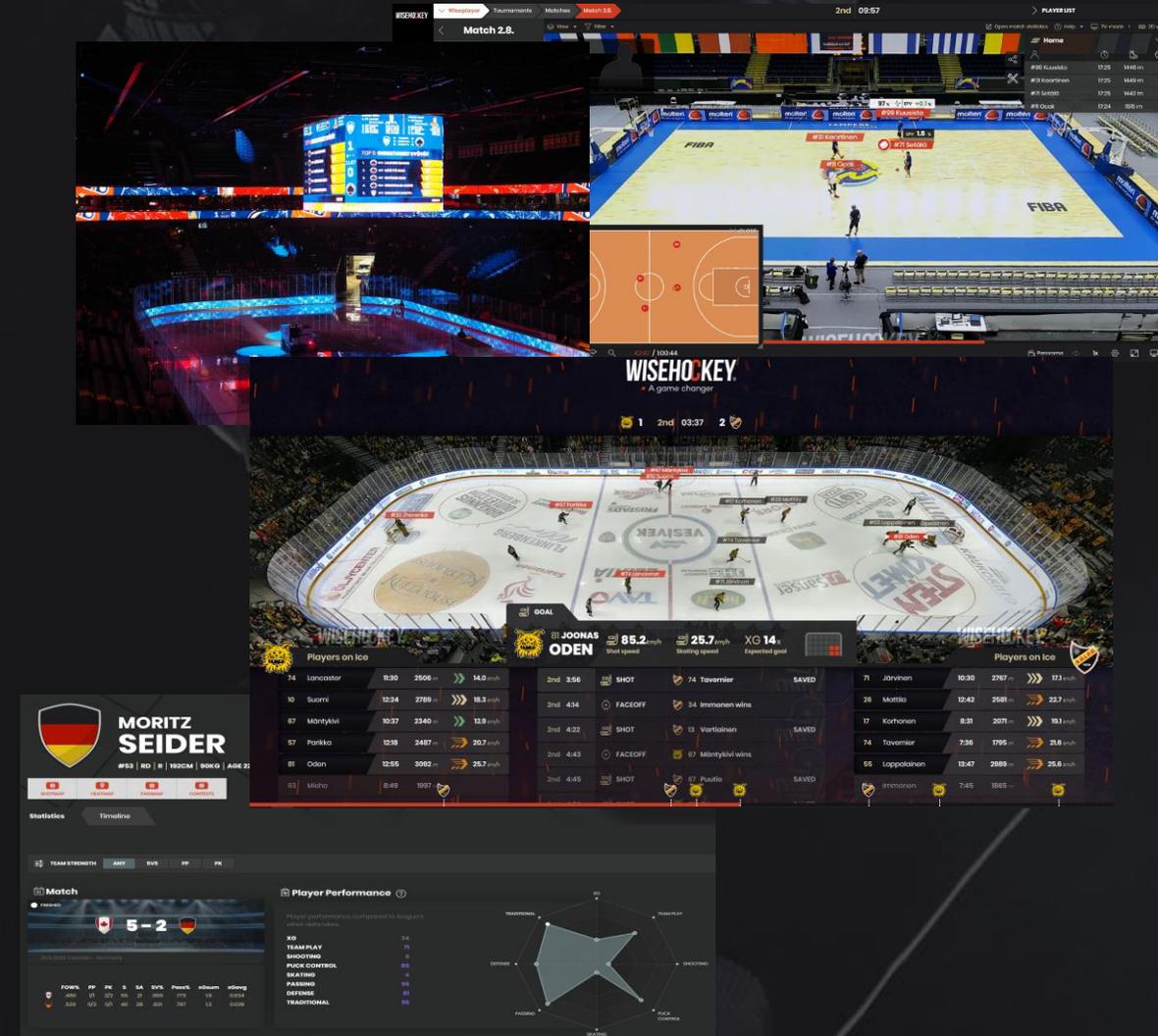
- Accuracy between arenas -> can be used official stats
- New measures can be introduced afterwards in minutes

New features to sports

- Neverseen measures enable deeper level team analytics
- With BLE, any bluetooth gadgets can be added

Sport services can be brought to 21st century

- New revenue streams with real-time data



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Superior analytics

Real-time feature examples



REAL-TIME FEATURES

Examples from football

Player performance

- Full player profiling
- Distance, average speed, maximum accelerations, speed zones, passing etc.
- Distance and maximum speed of the ball
- Player heatmaps (with/without ball)
- xG & shots (hardest, areas, lateral pass, screens)
- Ball control with heatmap & movements
- Headers
- Passing (time/distance/distance fwd/%)
- Ball contest wins (areas), blocks
- HRM with partner such as Polar, Suunto

Team performance

- Offensive analysis with all movements & events
- Shooting effectiveness with previous events
- Pass map & pass network
- Contest wins, blocks
- Team physical summary
- Goals, penalties, corner & free kicks
- Offsides, throw-ins, shots
- Team performance summary
- Interactive shot maps (wide / over / saved / puck speed / previous events)

Tactical performance

- Wiseplayer, game recording
- Video sync with any event
- Real-time game analysis (momentum)
- Ball control & contest heatmaps
- All offenses in story format with every player's positions and automated video clipping
- Offense filtering including but not limited to:
 - Attack zone entries, loose balls, shots, goals, passes, carries, free kicks, corners, time on attack, intercepted passes
- Pressure analysis



REAL-TIME FEATURES

Current state basketball

Player performance

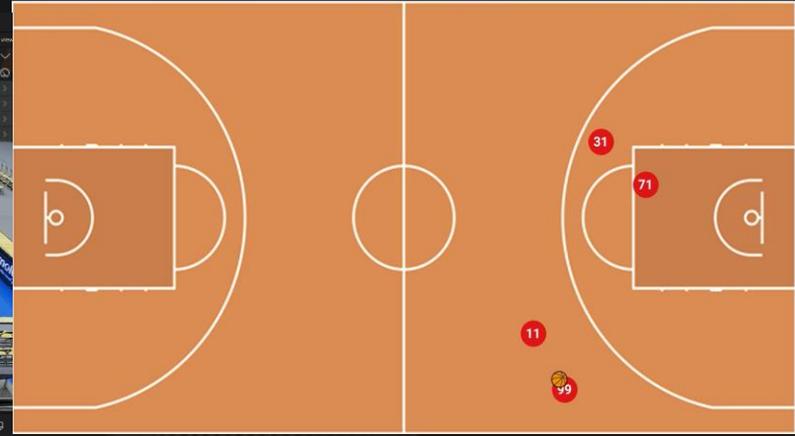
- Player profile
- Distance, average speed, maximum accelerations, speed zones, passing etc.
- Distance and maximum speed of the ball
- Player heatmaps (with/without ball)
- Shots (place, movements before)
- Ball control with heatmap & movements
- Passing (time/distance/distance fwd/%)
- Ball contest wins (areas), blocks
- HRM with partner such as Polar, Suunto

Team performance

- Offensive analysis with all movements & events
- Shooting effectiveness with previous events
- Pass map
- Contest wins, blocks
- Team physical summary
- Shots, free shots
- Throw-ins, penalties
- Team performance summary
- Interactive shot maps
- Play-by-Play with video clipping

Tactical performance

- Wiseplayer, game recording
- Video sync with any event
- Real-time game analysis
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- All offenses in story format with every player's positions and automated video clipping
- Offense filtering
- Pressure analysis



Background About Wisehockey xG Model

- AUC: 0.892 (higher than with any public or commercial model)
- Best open source model AUC: 0.797
- Best commercial model in North America AUC: 0.860
- Wisehockey model AUC: 0.892, available real-time
- Training data: +100 000 shots of which there are approximately +3000 goals
- Used features in Wisehockey model (+100 elements), examples:

'distance', 'angle', 'pass_angle', 'last_shot', 'angle_delta_shot', 'shot_velocity', 'player_velocity', 'last_pass', 'last_pass_distance', 'last_pass_duration', 'angle_delta_pass', 'x_coord', 'y_coord', 'home', 'players_for', 'players_agn', 'interception', 'masking_for', 'masking_agn', 'closest_opponent', 'visual_angle', 'height', 'royal_road', 'x_coord_pass', 'y_coord_pass', 'pass_shot_delta', 'pass_count', 'last_shot_saved', 'angle_speed_shot', 'angle_speed_pass', 'x_coord_goalie', 'y_coord_goalie', 'last_event_dump', 'goalie_dist_shot', 'goalie_dist_goal', 'goalie_out', 'goalie_movement', 'onetimer', 'rebound', 'nearest_mask', 'players_in_vision', 'x_coord_goalie_pass', 'y_coord_goalie_pass', 'defending_area', 'x_coord_intersection', 'y_coord_intersection', 'closest_teammate', 'closest_velocity', 'closest_angle', 'entry_carry', 'entry_control_time', 'time_since_entry', 'last_shot_missed', 'last_shot_blocked',

Contextual analytics

Player Profiling

Consist 8 main areas (includes tens of measures)
Shift analysis
Visuals

Team Profiling

Offence analysis
Team summaries
Visuals

Game Profiling

Momentum (game flow)
CSI (control, stress, intensity) game profile
xG



Wisehockey real-time analytics

Examples from Wisehockey automated real-time cloud service

The collage displays several key features of the Wisehockey analytics platform:

- Player Profile (Top Left):** Profile for B. JORN SEAN-MICHEL K. SUNNQVIST, #81, RW, 185CM, 85KG, AGE 30. Includes a photo and performance metrics.
- Match Event Feed (Top Middle):** "Match 27.10" showing a list of events such as "00:04 Header contest", "01:35 Goal Kick", and "02:53 Header contest".
- Live Game Feed (Top Right):** "Match 28" showing a live view of the game with a "STOPPAGE OF PLAY" overlay and player positions.
- Statistical Dashboards (Bottom Left):** "Points & Traditional" table with columns for Period, S, %S, Passes, Pass%T, Total Pass Dist, Forward Pass Dist, Screens, Blocks, FOW, and FOW%.

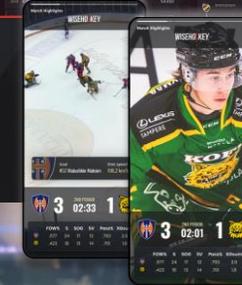
Period	S	%S	Passes	Pass%T	Total Pass Dist	Forward Pass Dist	Screens	Blocks	FOW	FOW%
1.0-5	4	0	46/50	90	100 m	22 m	2	2	-	-
2.0-5	4	0	46/50	90	100 m	22 m	2	2	-	-
3.0-5	4	0	46/50	90	100 m	22 m	2	2	-	-
Koko ottelu	12	0	46/50	90	300 m	66 m	4	4	48	40
Välispuolueen puoliaika	4	0	46/50	90	100 m	22 m	2	2	-	-
Välispuolueen hetimit	4	0	46/50	90	100 m	22 m	2	2	-	-
- Heatmaps (Middle):** Visualizations of player movement and possession on the ice.
- Speed Zones (Bottom Right):** A dashboard showing "Top Speed 25.5 km/h", "Average Speed 8.2 km/h", and "Control Wins 42/68".
- Match 2.8 (Bottom Middle):** Another live game feed showing a "STOPPAGE OF PLAY" and player positions.
- Statistical Tables (Bottom):** A table comparing "PASSING", "SHOOTING", "MOVEMENT", "POSSESSION", "ATTACKING", and "DEFENDING" metrics across different periods.| | PASSING | SHOOTING | MOVEMENT | POSSESSION | ATTACKING | DEFENDING |
| --- | --- | --- | --- | --- | --- | --- |
| 1st half | 28/37 | 8/11 | + | - | + | - |
| 2nd half | 28/32 | 8/11 | + | - | + | - |
| Match total | 56/69 | 16/22 | + | - | + | - |

Wisehockey and services



Wisehockey media/video offering

1. Live TV signal
 - Automated live stats (team/player stats, top lists, overlays)
 - Studio (player comparisons, game comparisons, shot/heat maps, time on attack...)
 - More efficient and enriched TV production with data and video automation
2. OTT
 - Fully automated e2e solution based on unique real-time analytics
 - Modularic solution that enables scale service level/quality based on need
3. VOD and automated video clipping
 - Automatically generated video clips based unique Wisehockey algorithms
 - Fans decides what, how and when they want to consume
4. Second screen
 - Second screen (fast baseline implementation e.g. with media tool)
 - Flexible custom assets in different assets, like app, web and hybrid-TV
5. VAR / Coaches challenge
 - Minimal HW needed at the venue as system is cloud based, no full Wisehockey system needed



Done real-time on TV, examples



Live overlay



Game 'bling'



Studio top lists / Graphs



Shot speedometer



Game 'bling'



Game flow



Live stats



Live top lists



Team stats

Camera examples (real-time TV feed included, if available)

Hikvision

- PanoVu 180 & single
- Automated stream & multi-angle + coaches challenge



Marshall

- PTZ, 8xOptical, 1080@60FPS -> 32xOptical, 4k@60FPS
- TV production quality & multi-angle



Axiss

- Option to Hikvision + single
- Wide-angle, multi-angle + coaches challenge



Nikon

- New, very high-end robot camera with live 3D coordinates
- Automated video overlays, virtual advertising etc.

Betting



Key Benefits for Betting

1. Standard real-time APIs from all events

- Robust API, which widely in daily use
- Automated & "always on", doesn't need any game day activities

2. Easy to enrich live gamers betting feed

- Video stream with automatically embedded data
- New automated visualizations

3. New live gaming options

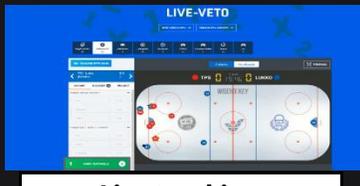
- More betting based real-time data
- Unique fortune and fantasy game options

Key Benefits for Betting production

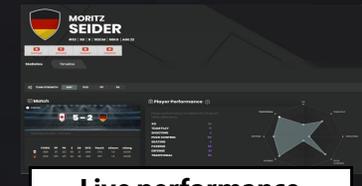
Application



Real-time API



Live tracking



Live performance



Live game flow



Story telling



New live games



Control room

Wisehockey Service

1

Low latency e2e pipeline

All stats in second

2

Realtime analytics

Fast and reliable

Data that others cannot provide

3

Automated management

No manpower at game day

Automated quality control e2e

End user and API management

Key advance

Game events automatically

Real-time entertainment

New level pre-game analysis

All information available in-game

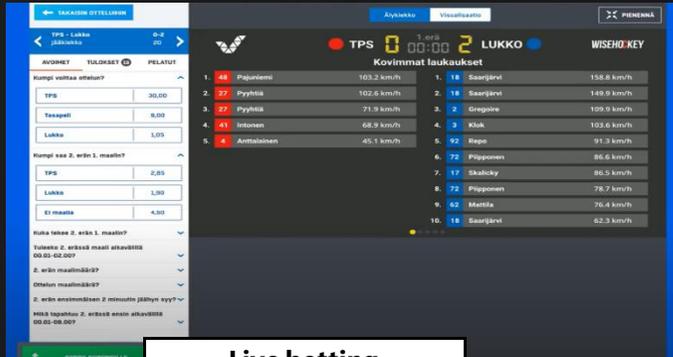
Competitive advance

No personnel at venue

No manual head-ache

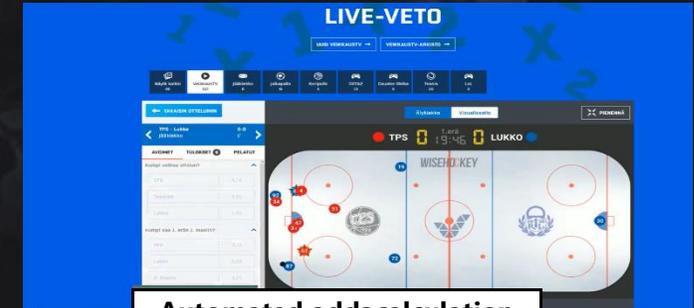
System hosting by Wisesport

Next gen automated API's

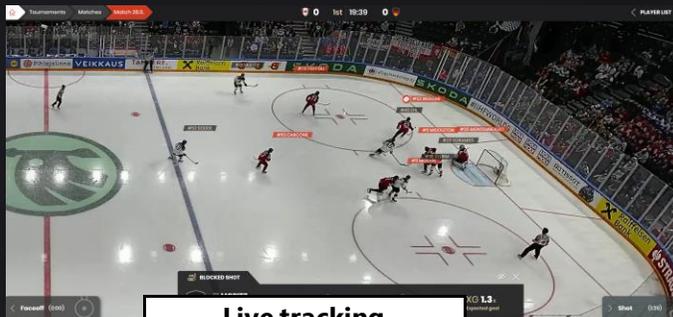


Live betting

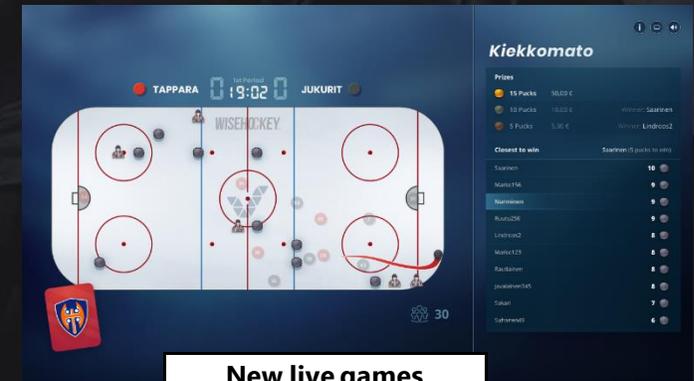
Very low latency (100-300ms)
Player & puck position
Match clock information
xR solutions & camera automation
Selected data pipeline



Automated odds calculation



Live tracking

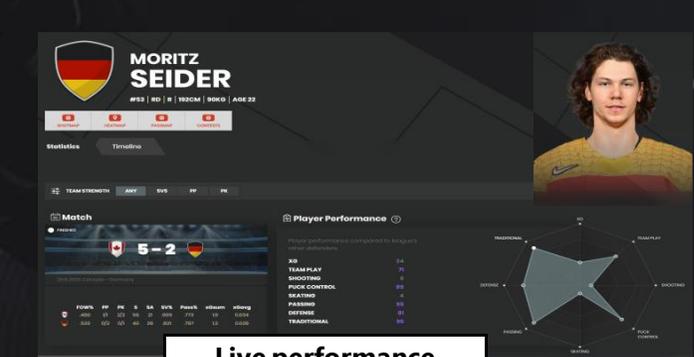


New live games



Live game flow

Real-time stats (5-10 seconds)
All stats and visuals
All data with video overlays



Live performance

Live bet examples

Virtual player

Real-time game visual

Odds calculation

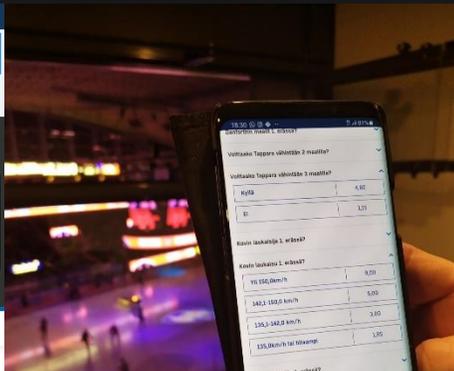
New bets, like top shot/fastest player

New game concepts

Fortunate games

Based on real-time player/game data

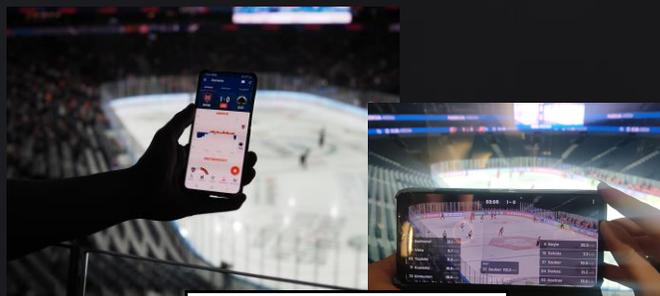
Consumer test phase



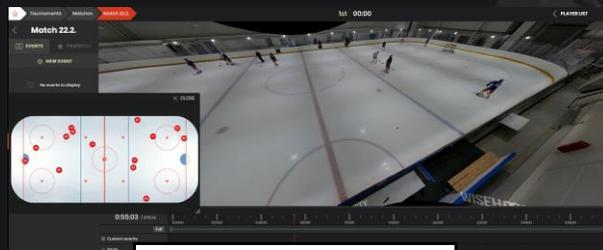
Team benefits



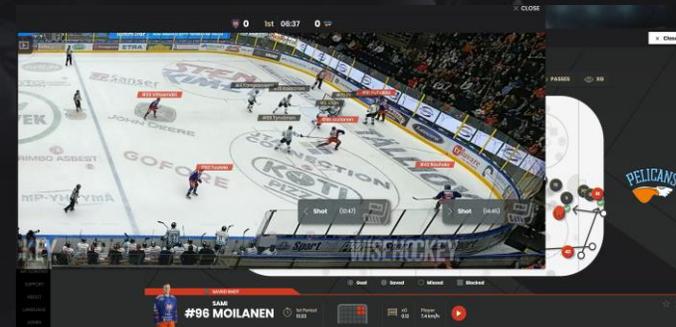
Case: Tappara



App



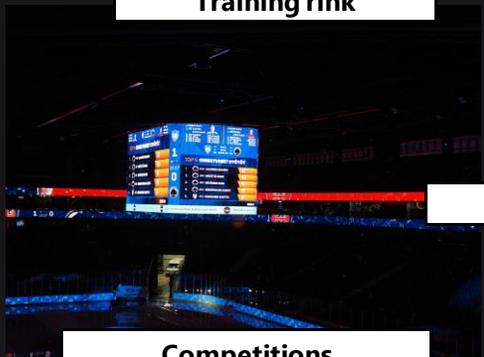
Training rink



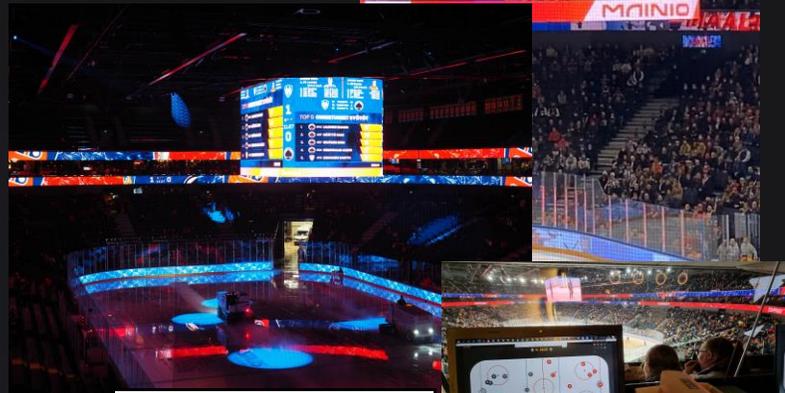
Multicam



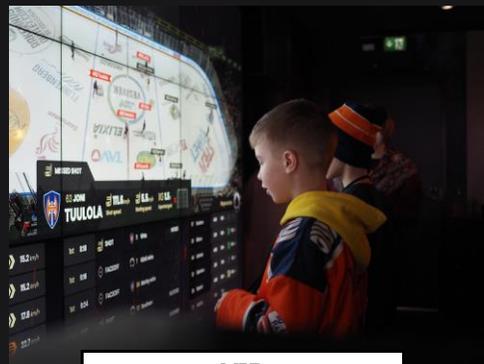
Sponsor events



Competitions



Low latency



VIP



KRISTIAN VITTA SMÄKI

HARDEST SHOT	124 km/h
TOP SPEED	8.6 km/h
JÄÄAIKA	16:06
MATKA	4174 m

WISEHO:KEY

Custom branding

Arena led screens

Top lists



Low latency players on ice



Live shots count



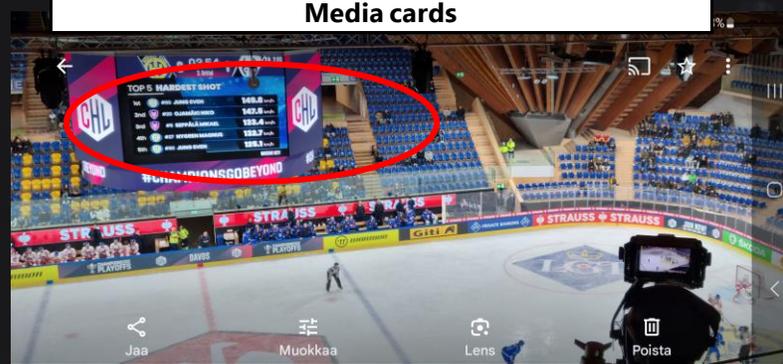
Low latency shots



Ribbon stats



Media cards



Wisehockey marketing examples

CHAMPION REVOLUTIONIZED STORYTELLING WITH PUCK BIOGRAPHY



Wisehockey real-life examples



This is Wisehockey [YouTube](#)

Wisehockey analytics insights [Web](#)

Team benefits [YouTube](#)

Digital benefits [YouTube](#)

Journey to KHL Allstar [Youtube](#)

Example from official game [Youtube](#)

System video [YouTube](#)

Ready to change your game?

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