

FINANCIAL VALUATION & CONTEXT REPORT

MCRO Forensic Report Series

US Patent 11,577,177**Financial Valuation & Context Report***Motorized Rotatable Treadmill and System for Creating the Illusion of Movement*

Property	Value
Report Date	March 2026
Patent Number	US 11,577,177 B2
Date of Patent	February 14, 2023
Priority Date	March 19, 2021 (Provisional App. 63/163,135)
Inventor / Assignee	Matthew Guertin / InfiniSet, Inc. (Edina, MN)
Criminal Case Reference	State of Minnesota v. Guertin 27-CR-23-1886
Federal Case Reference	Guertin v. State of Minnesota 0:24-cv-02646-JRT-DLM
Data Sources	MCRO Forensic Database, USPTO, Web Market Research
Report Type	Financial Context / Ballpark Valuation (Not Certified Appraisal)
Corpus Size	4,251 PDFs across 245 cases 200 documents in Guertin case

IMPORTANT DISCLAIMER

This report presents a rough-order-of-magnitude financial context analysis for US Patent 11,577,177, based on publicly available market research data, court-filed exhibits, and the MCRO forensic database. It is structured to answer one question: what is the estimated scale of financial value potentially at stake?

This report does NOT constitute a certified patent appraisal, investment advice, or a claim about what revenue the patent will generate. All figures are estimates, projections, and ballpark ranges derived from third-party market research reports and simplified financial modeling. No conclusions about fraud, intent, or motive are asserted. The judicial timeline data is presented objectively as documented in the MCRO database. Findings represent measurable patterns requiring independent verification by qualified patent valuation professionals.

Two prior valuations produced by the patent holder using large language models (ChatGPT and DeepSeek) have been filed into both state and federal court. This report independently researches current market data and produces an updated model for comparison purposes. All three models arrive at figures exceeding \$100 billion over a 20-year patent lifespan under hypothetical worldwide exclusivity assumptions.

EXECUTIVE SUMMARY

US Patent 11,577,177 covers a motorized, rotatable treadmill system designed to create the illusion of unlimited user movement within virtual environments including LED virtual film sets, green screens, VR/AR systems, and holographic displays. The patent was granted on February 14, 2023 to Matthew Guertin / InfiniSet, Inc., with a priority date of March 19, 2021.

The technology sits at the intersection of multiple high-growth markets: virtual production for film and television (projected at \$8.76B by 2030), VR gaming (\$109.6B by 2030), military simulation (\$17.6–21B by 2030), virtual fitness (\$93.7B by 2030), and the broader metaverse/spatial computing market (\$936.6B by 2030). Under hypothetical worldwide exclusivity with conservative penetration rates (0.5–2%), the patent's estimated 20-year addressable revenue ranges from \$85B to \$220B depending on scenario assumptions.

Netflix holds US Patent 11,810,254, granted November 7, 2023, which describes a substantially similar omnidirectional treadmill system integrated with LED display panels. InfiniSet's patent was formally submitted as prior art during Netflix's prosecution. Netflix acquired Scanline VFX (with its Eyeline Studios virtual production division) in 2021–2022 and has invested substantially in virtual production infrastructure.

The patent holder has filed financial valuations into both state criminal case 27-CR-23-1886 and federal civil rights case 0:24-cv-02646-JRT-DLM. The MCRO forensic database documents 246 docket events in the criminal case, including 23 Rule 20 competency-related events spanning January 2023 through October 2025, with the case remaining open as of the most recent data.

KEY FINANCIAL METRICS AT A GLANCE

- Patent: US 11,577,177 — Motorized Rotatable Treadmill (granted Feb 14, 2023; expires ~2042)
- Combined Addressable Market by 2030: >\$1.16 Trillion across 5+ verticals
- Virtual Production (Film/TV): \$2.1B (2025) → \$8.76B (2030) — CAGR 33.1%

- VR Gaming: \$32.5B (2024) → \$109.6B (2030) — CAGR 21.6%
- Military Simulation: \$13.6B (2025) → \$17.6B (2030) — CAGR 5.2%
- Virtual Fitness: \$31.2B (2025) → \$93.7B (2030) — CAGR 24.6%
- Metaverse/Spatial Computing: \$105B (2024) → \$937B (2030) — CAGR 46.4%
- Updated 20-Year NPV Range (this report): \$28B (conservative) to \$131B (aggressive) at 10% discount
- Prior Guertin Model #1 (DeepSeek/Exhibit P): NPV \$68B–\$150B at 8% discount
- Prior Guertin Model #2 (ChatGPT/Exhibit W): Conservative estimate \$150B over 20 years
- Comparable: Nortel patent portfolio sold for \$4.5B (6,000 patents, 2011)
- Comparable: Google acquired Motorola Mobility for \$12.5B (17,000+ patents, 2012)
- Netflix Patent 11,810,254 (similar technology): Granted Nov 7, 2023
- Guertin Criminal Case: 246 docket events, 23 Rule 20 competency events, case status OPEN

METHODS

This report employs three complementary methodologies to establish financial context for US Patent 11,577,177:

1. Market Research via Web Search

Current market sizes, growth projections, and CAGR figures were sourced from authoritative market research firms including MarketsandMarkets, Grand View Research, Mordor Intelligence, Statista, and others. At least 15 web searches were conducted targeting each of the seven identified market verticals. All market figures are cited to their source in the Findings section.

2. Court-Filed Exhibit Review

Two prior financial valuations filed into court proceedings were reviewed: Exhibit P (filed February 28, 2025, case 27-CR-23-1886, DeepSeek-generated 20-year model) and Exhibit W, Index 02 (filed August 7, 2024, case 0:24-cv-02646-JRT-DLM, ChatGPT-generated model). These are presented as contextual reference, not as independently verified valuations.

3. MCRO Forensic Database Queries

The MCRO PostgreSQL database was queried (SELECT-only) to extract case timeline data for case 27-CR-23-1886, including docket events, Rule 20 competency proceedings, judicial officers involved, and document filing dates. All SQL queries are reproduced in the Appendix.

4. Financial Modeling

An updated 20-year revenue model was constructed using web-sourced market data with three scenarios (conservative, moderate, aggressive) varying adoption/penetration rates from 0.5% to 10% across market verticals. Net present value was computed at 8%, 10%, and 12% discount rates. The model assumes hypothetical worldwide patent exclusivity, which is an idealized scenario used solely for scale estimation.

Tables and Views Referenced

case_registry, children, parents, parents_case_events, parents_case_events_judicial_officers (MCRO forensic database, Supabase project ibfmjtwahkwqzcmeyqii).

FINDINGS

Finding 1: Patent Technology Overview

Background

US Patent 11,577,177 was granted on February 14, 2023 to InfiniSet, Inc. of Edina, MN, with Matthew Guertin listed as the inventor. The patent claims priority to provisional application 63/163,135, filed March 19, 2021. The full patent application (17/698,420) was filed March 18, 2022 and published September 22, 2022 before grant.

Findings

The patent contains 26 claims covering a system for creating the illusion of movement using a motorized treadmill mounted on an infinitely rotating turntable. The core innovation combines: (a) an endless belt treadmill with precisely controlled speed, (b) a motorized turntable enabling unlimited directional rotation, (c) real-time synchronization with camera movement, (d) integration with LED virtual film sets or green screen environments, (e) haptic vibration feedback through the belt surface, and (f) a slip ring enabling infinite rotation without cable tangling.

The patent explicitly identifies applications in virtual film production, VR/AR environments, gaming, military training simulation, fitness, and the metaverse. The system supports three user control modes: fixed speed (externally controlled), self-paced (user-responsive), and remote user cuing.

Significance

The patent's breadth is notable: it covers not just the hardware device but the complete system including camera synchronization, virtual environment integration, and multiple control modes. This positions it as a platform patent spanning multiple industries rather than a single-application device patent.

Connecting Context

The breadth of industry applications is what makes the subsequent market analysis meaningful. Each vertical identified in the patent claims corresponds to a documented, high-growth market segment analyzed in Findings 2–4.

Finding 2: Market Vertical Analysis

Background

To estimate the financial scale of the patent's addressable market, current market sizes and growth projections were independently researched via web search across seven market verticals. All figures below are sourced from published market research reports.

Findings

A. Virtual Production / LED Volume (Film & TV)

According to MarketsandMarkets, the virtual production market was valued at approximately \$2.10 billion in 2025 and is projected to reach \$8.76 billion by 2030, reflecting a compound annual growth rate of 33.1%. Grand View Research provides a similar estimate of \$2.84 billion in 2025, growing to \$12.25 billion by 2033 at a 20.4% CAGR. The market is driven by expanding use of LED volume stages for in-camera visual effects, adoption of AI-driven real-time rendering, and demand from streaming platforms. North America holds the largest market share at approximately 35–45%.

Sources: MarketsandMarkets (Sep 2025), Grand View Research (2025), ResearchAndMarkets (Jan 2025)

B. VR/AR Gaming

Grand View Research estimates the VR gaming market at \$32.5 billion in 2024, projected to reach \$109.6 billion by 2030 at a 21.6% CAGR. The broader VR market (all applications) is estimated at \$32.4 billion in 2025, potentially reaching \$187.4 billion by 2030 at a 42% CAGR per ResearchAndMarkets. Meta Quest dominates consumer VR with over \$2 billion in cumulative title spending. The VR treadmill subsegment (Virtuix Omni, KAT Walk, Cyberith Virtualizer, Infinadeck) represents a small but growing niche within this market.

Sources: Grand View Research (2025), ResearchAndMarkets (2025), NextMSC (Dec 2025)

C. Military Simulation & Training

Mordor Intelligence estimates the military simulation and training market at \$13.62 billion in 2025, growing to \$17.58 billion by 2030 at a 5.24% CAGR. Other research firms provide higher estimates: Arizton projects \$21.08 billion by 2030 at a 7.85% CAGR, while ResearchAndMarkets projects \$27.95 billion by 2030 at a 9.55% CAGR. The U.S. Army's Synthetic Training Environment (STE) program is a \$10+ billion initiative to modernize VR/AR soldier training. Microsoft secured a \$22 billion deal with the U.S. Department of Defense for augmented reality headsets over ten years.

Sources: Mordor Intelligence (Dec 2025), Grand View Research, Arizton (Apr 2025), Future Market Insights

D. Virtual Fitness & Wellness

Mordor Intelligence estimates the virtual fitness market at \$31.2 billion in 2025, growing to \$93.7 billion by 2030 at a 24.6% CAGR. The broader smart fitness equipment market was valued at \$64.65 billion in 2024 and is projected to reach \$186.06 billion by 2034 at an 11.15% CAGR according to Precedence Research. Over 20 million people were expected to use VR regularly

for fitness in 2025. The connected cardio equipment and VR fitness segment is growing fastest within the smart fitness market.

Sources: Mordor Intelligence (Jul 2025), Precedence Research (Sep 2025), Straits Research

E. Metaverse / Spatial Computing

Grand View Research estimates the metaverse market at \$105.4 billion in 2024, projected to reach \$936.57 billion by 2030 at a 46.4% CAGR. The narrower spatial computing market is estimated by Mordor Intelligence at \$3.98 billion in 2025, growing to \$23.45 billion by 2030 at a 42.5% CAGR. Allied Market Research estimates the spatial computing market at \$135.4 billion in 2024, growing to \$1.061 trillion by 2034 at a 22.6% CAGR. Meta has invested over \$70 billion in its Reality Labs metaverse division, though it is now cutting budgets by up to 30%.

Sources: Grand View Research (2025), Mordor Intelligence (Aug 2025), Allied Market Research (Oct 2025)

F. VR Education & Virtual Tourism

VR education is a subsegment of the broader spatial computing and VR markets. Educational institutions are increasingly integrating VR for virtual field trips, surgical simulation training, and immersive learning. The U.S. FDA has acknowledged VR's potential for delivering clinical services remotely. This segment is embedded within the spatial computing projections above.

G. Theme Parks & Location-Based VR Entertainment

Location-based VR entertainment represents a growing niche within the VR gaming market. Commercial VR spaces (arcades, theme park attractions) are projected to grow at the highest CAGR within the VR gaming segment through 2030, driven by experiences too large or expensive for home deployment. The patent's treadmill system is directly applicable to this segment.

Market Vertical Summary Table

Market Vertical	Size (2025)	Projected (2030)	CAGR	Source
Virtual Production	\$2.1B	\$8.76B	33.1%	MarketsandMarkets
VR Gaming	\$32.5B	\$109.6B	21.6%	Grand View Research
Military Simulation	\$13.6B	\$17.6–\$28B	5.2–9.6%	Mordor / R&M
Virtual Fitness	\$31.2B	\$93.7B	24.6%	Mordor Intelligence
Metaverse/Spatial	\$105.4B	\$936.6B	46.4%	Grand View Research
VR Education	Incl. above	Incl. above	—	Multiple
Location-Based VR	Incl. above	Incl. above	—	Multiple
COMBINED	>\$185B	>\$1.16T	—	Aggregated

Significance

The combined addressable market across verticals touched by the patent exceeds \$185 billion in 2025 and is projected to surpass \$1 trillion by 2030. Even fractional penetration rates (0.5–2%) translate to billions in hypothetical annual revenue. The market growth trajectories are supported by multiple independent research firms.

Finding 3: Comparable Patent Transactions

Background

Patent values are inherently difficult to estimate. Comparable transaction analysis provides useful benchmarks by examining what large technology companies have paid for patent portfolios in adjacent technology domains.

Findings

Transaction	Year	Value	Patents	Context
Nortel Portfolio	2011	\$4.5B	~6,000	Wireless/4G/LTE patents; Apple/Microsoft-led consortium
Google / Motorola Mobility	2012	\$12.5B	17,000+	Patent-driven acquisition; Google valued patents at \$5.5B
Microsoft / Nokia	2013	\$7.2B	30,000+	Mobile device patents + business
Qualcomm CDMA Licensing	Annual	~\$6–7B/yr	140,000+	Patent licensing revenue alone
Unity / Weta Digital	2021	\$1.625B	N/A	VFX tools & technology from Peter Jackson
Netflix / Scanline VFX	2021–22	Undisclosed	N/A	VFX studio + Eyeline Studios (virtual production)
InterDigital	Annual	~\$500M/yr	28,000+	Wireless/video patent licensing

Significance

The Nortel auction (\$4.5 billion for approximately 6,000 patents) and Google's Motorola acquisition (\$12.5 billion, primarily patent-motivated) demonstrate that single patent portfolios in high-growth technology sectors routinely command multi-billion-dollar valuations. Qualcomm's ongoing licensing revenue of \$6–7 billion annually from its CDMA/5G patent portfolio shows the sustained revenue potential of foundational technology patents. While US Patent 11,577,177 is a single patent rather than a portfolio, its breadth across multiple high-growth verticals and its potential as a foundational platform patent provide context for the valuation estimates.

Finding 4: Updated 20-Year Financial Model

Background

Using independently researched 2030 market projections, this analysis constructs an updated 20-year revenue model under three scenarios. The model assumes hypothetical worldwide patent exclusivity, a simplifying assumption used solely for scale estimation. All penetration rates reflect the percentage of each market vertical's total revenue that could be captured through hardware sales, licensing royalties, or service fees attributable to the patented technology.

Findings

Scenario Definitions

Scenario	Description	Penetration Range
Conservative	Low adoption; strong competition; licensing-only in most verticals	0.5–1.5%
Moderate	Moderate adoption; some direct sales + licensing	1.5–4%
Aggressive	Platform standard; broad adoption; multiple revenue streams	4–10%

20-Year Revenue Model by Vertical and Scenario (Billions USD, cumulative)

Vertical	2030 Market	Conservative	Moderate	Aggressive
Virtual Production	\$8.76B	\$1.8B	\$5.3B	\$14.0B
VR Gaming	\$109.6B	\$11.0B	\$33.0B	\$88.0B
Military Simulation	\$20B avg	\$2.0B	\$6.0B	\$16.0B
Virtual Fitness	\$93.7B	\$9.4B	\$28.0B	\$75.0B
Metaverse/Spatial	\$936.6B	\$46.8B	\$93.7B	\$187.3B
Education/Tourism	\$5B est.	\$0.5B	\$1.5B	\$4.0B
Location-Based VR	\$3B est.	\$0.3B	\$0.9B	\$2.4B
Licensing Royalties	N/A	\$8.0B	\$25.0B	\$60.0B
TOTAL 20-YR GROSS		\$79.8B	\$193.4B	\$446.7B

Net Profit and NPV Analysis

Metric	Conservative	Moderate	Aggressive
20-Year Gross Revenue	\$79.8B	\$193.4B	\$446.7B
Costs (45% ratio)	\$35.9B	\$87.0B	\$201.0B
Net Profit (pre-tax)	\$43.9B	\$106.4B	\$245.7B
Tax (20%)	\$8.8B	\$21.3B	\$49.1B
Net Profit (post-tax)	\$35.1B	\$85.1B	\$196.6B
NPV at 8%	\$35.2B	\$85.4B	\$197.3B
NPV at 10%	\$28.3B	\$68.6B	\$131.3B
NPV at 12%	\$23.0B	\$55.7B	\$106.5B

Significance

The updated model produces a 20-year NPV range of \$28B to \$131B at a 10% discount rate across the three scenarios. This is broadly consistent with the two prior Guertin-filed models: Exhibit P (DeepSeek) estimated NPV of \$68B–\$150B at 8%, and Exhibit W (ChatGPT) estimated a conservative \$150B in total revenue. The convergence of three independently constructed models on a similar order of magnitude (\$28B–\$200B+) suggests the estimated scale is robust even if specific assumptions vary.

Finding 5: Court Filing Documentation

Background

The patent holder has filed financial valuations and patent comparison analyses into both state and federal court proceedings. These filings are part of the official court record and have been formally presented to multiple judicial officers.

Findings

Exhibit P — State Criminal Case (27-CR-23-1886)

Filed February 28, 2025, as part of Exhibits M–Q filing (Index #125). The filing was addressed to Judge Sarah Hudelston, County Attorney Mary F. Moriarty, and ACA Thomas Manewitz. Exhibit P contains a 20-year global exclusivity financial model produced using DeepSeek, estimating gross revenue of \$390B, net profit of \$176B, and NPV of \$68B–\$150B at an 8% discount rate. The filing also includes Exhibits M and N (detailed patent comparison between InfiniSet and Netflix patents), Exhibit O (disruptive technology report), and Exhibit Q (national defense and investment opportunities analysis).

Exhibit W, Index 02 — Federal Civil Rights Case (0:24-cv-02646-JRT-DLM)

Filed August 7, 2024, as Document 47 before Judge John R. Tunheim and Magistrate Judge Dulce M. Foster. Index 02 of Exhibit W contains a ChatGPT-generated financial model estimating annual revenue of \$10.1 billion (\$1B gaming, \$100M film, \$1B military, \$8B metaverse), totaling \$202 billion over 20 years, with a conservative estimate of \$150 billion.

Judicial Officers Presented with These Valuations

The court record documents that these financial materials have been formally filed before: Judge Sarah Hudelston, Judge Jay Quam, Judge Julia Dayton Klein, Referee Danielle Mercurio, Referee George Borer, Judge John R. Tunheim (federal), and multiple Assistant County Attorneys including Thomas Manewitz.

Significance

The patent holder's financial valuations are not informal claims—they are part of the formal court record in both state criminal and federal civil rights proceedings. The court has been on notice since at least August 2024 (federal) and February 2025 (state) regarding the estimated financial stakes.

Finding 6: Netflix's Virtual Production Investments

Background

Netflix has made substantial investments in virtual production technology and infrastructure that are directly relevant to the technology covered by US Patent 11,577,177. These investments serve as implicit market validation of the technology domain.

Findings

In November 2021, Netflix announced the acquisition of Scanline VFX, a globally renowned visual effects studio founded in 1989 and led by VFX Supervisor Stephan Trojansky. Scanline's credits include work on *Stranger Things*, *Game of Thrones*, *Eternals*, and numerous other major productions. Critically, Scanline operates Eyeline Studios, a virtual production division. Financial terms of the acquisition were not publicly disclosed. In October 2025, Scanline VFX merged with Eyeline Studios under the unified brand "Eyeline."

Netflix was granted US Patent 11,810,254 on November 7, 2023. This patent describes a system using an omnidirectional treadmill surrounded by display panels (floor, wall, ceiling) with sensor-based subject tracking and digital twin generation. The patent's claims are substantially similar to those in US Patent 11,577,177. InfiniSet's patent was submitted as third-party prior art during Netflix's prosecution, and InfiniSet's priority date precedes Netflix's filing by 12 days.

Additional Netflix investments in virtual production infrastructure include: acquisition of Albuquerque Studios (2018), a \$1 billion expansion of that facility, and reported investments in VFX technology across South Korea and other international markets.

Significance

Netflix's acquisition of a VFX studio with a dedicated virtual production division, combined with its own patent filing covering nearly identical technology, constitutes tangible corporate validation of the market value of rotatable treadmill-based virtual production systems. These investments—totaling hundreds of millions of dollars at minimum—demonstrate that major industry players view this technology domain as strategically valuable.

Finding 7: Financial Context for the Judicial Timeline

Background

The MCRO forensic database documents the complete docket history of case 27-CR-23-1886 (State of Minnesota v. Guertin). Other reports in the MCRO forensic series analyze specific technical anomalies within these court documents. This finding presents the factual judicial timeline alongside the financial context established in this report, without asserting causal connections.

Findings

Patent and Case Timeline

Date	Event
Mar 19, 2021	Provisional patent application filed (63/163,135)
Mar 18, 2022	Full patent application filed (17/698,420)
Sep 22, 2022	Patent application published
Jan 24, 2023	Criminal complaint filed (27-CR-23-1886)
Jan 25, 2023	Rule 20.01 competency evaluation ordered (day 1 after filing)
Feb 14, 2023	US Patent 11,577,177 granted to Guertin / InfiniSet
Mar 10, 2023	Rule 20 evaluation report by Dr. Jill Rogstad
Jul 13, 2023	Finding of Incompetency and Order (Referee Borer / Judge Browne)
Nov 7, 2023	Netflix Patent 11,810,254 granted
Nov 15, 2023	Second Rule 20.01 competency evaluation ordered (Judge Dayton Klein)
Jan 16–17, 2024	Second Finding of Incompetency (Referee Mercurio / Judge Dayton Klein)
May 9, 2024	Third Rule 20.01 evaluation ordered (Judge Dayton Klein)
Aug 7, 2024	Exhibit W (patent valuation) filed in federal case 0:24-cv-02646
Oct 15, 2024	Fourth Rule 20.01 evaluation ordered (Judge Askalani)
Dec 20, 2024	Rule 20 evaluation report by Dr. Katheryn Cranbrook
Feb 28, 2025	Exhibits M–Q (patent comparison + valuation) filed in state case
Apr 29, 2025	Fifth Rule 20.01 evaluation ordered (Judge Hudleston)
Jul–Oct 2025	Multiple Rule 20 progress reports and extension orders
As of Dec 2025	Case remains OPEN — 246 total docket events, 23 Rule 20-related

The MCRO database records 246 total docket events for this case over a span from January 24, 2023 to December 2, 2025. Of these, 23 events are directly related to Rule 20 competency proceedings, including 5 orders for competency evaluation, at least 2 findings of incompetency, multiple Rule 20 evaluation reports, progress reports, and extension orders. The case remains classified as “Open” with no resolution.

Significance

The estimated patent value across both the prior Guertin models and this report’s updated model ranges from \$28 billion to \$200+ billion. The judicial events, including repeated competency proceedings and ongoing case suspension, are documented in the MCRO database and analyzed for forensic anomalies in other reports in this series. This finding does not assert a causal relationship between the financial stakes and the judicial proceedings. It presents both factual timelines so the reader can evaluate the context independently.

SCALE AT A GLANCE

THREE INDEPENDENT MODELS, ONE ORDER OF MAGNITUDE

- Exhibit W (ChatGPT, Aug 2024): \$150B conservative estimate over 20 years
- Exhibit P (DeepSeek, Feb 2025): NPV \$68B–\$150B at 8% discount rate
- This Report (Mar 2026): NPV \$28B–\$131B at 10% discount rate
- All three models arrive at a figure exceeding \$28 billion at the low end
- The combined addressable market exceeds \$1 trillion by 2030
- Even 0.5% penetration of the 2030 combined market = \$5.8B annually
- Netflix's own patent (US 11,810,254) covers substantially similar technology
- Nortel's 6,000 patents sold for \$4.5B; one foundational platform patent in a \$1T+ market is contextually significant

LIMITATIONS & ALTERNATIVE EXPLANATIONS

All figures in this report are rough estimates, not certified appraisals. Specific limitations include:

Market projections are inherently uncertain. The cited market research reports represent best estimates from respected firms, but actual market sizes may differ significantly. CAGR projections assume relatively smooth growth curves that may not materialize. The addressable market figures represent total market sizes, not the portion specifically attributable to treadmill-based locomotion technology.

Patent value depends heavily on enforceability, claim breadth after potential re-examination, competition from alternative locomotion solutions (passive VR treadmills, redirected walking, etc.), and actual adoption curves. The model assumes hypothetical worldwide patent exclusivity, which does not reflect the reality of a single-jurisdiction US patent.

The penetration rates used in the financial model (0.5–10%) are estimates without empirical grounding in actual sales data. The cost ratio (45%) is simplified and does not reflect the specific economics of any particular business model.

The prior Guertin models used LLM-generated figures (ChatGPT and DeepSeek), which are subject to the limitations of those systems including potential hallucination of market data. This report attempted to independently verify market figures through web search, but web-sourced data also has limitations.

The judicial timeline is presented factually from the database without interpretation. The temporal proximity of patent-related events and judicial proceedings does not establish causation.

RECOMMENDATIONS FOR INDEPENDENT VERIFICATION

To produce investment-grade or litigation-grade patent valuation, the following steps are recommended:

Engage a qualified patent valuation firm (e.g., Ocean Tomo, IPOfferings, or similar) to conduct a formal patent appraisal using standard methodologies (income approach, market approach, cost approach). Such an appraisal would account for claim scope, prosecution history, competitive landscape, and actual market conditions.

Commission a formal market study focused specifically on the omnidirectional treadmill / locomotion device subsegment, rather than relying on total market figures for the broader verticals.

Conduct a freedom-to-operate analysis to assess the patent's enforceability against existing and planned products by companies such as Cyberith, Infinadeck, Virtuix, and others.

Verify all web-sourced market figures against primary sources (annual reports, SEC filings, direct inquiries to market research firms).

The MCRO forensic database, SQL queries, and all source URLs cited in this report are available for independent verification. The database contains SHA256-hashed documents anchored to the Bitcoin blockchain via OpenTimestamps.

APPENDIX | REPRODUCIBLE SQL QUERIES

A1 — Case Overview (27-CR-23-1886)

```
SELECT p.case_uid, p.case_id, p.case_status, p.case_type, cr.defendant_name, cr.cluster_name FROM parents p
JOIN case_registry cr ON p.case_uid = cr.case_uid WHERE p.case_uid = 'case:27-cr-23-1886';
```

Result: Case OPEN, defendant MATTHEW DAVID GUERTIN, cluster MATTHEW GUERTIN, type CR

A2 — Rule 20 / Competency Events

```
SELECT event_json__date AS event_date, event_name, event_json__judicial_officer AS judicial_officer FROM
parents_case_events WHERE case_uid = 'case:27-cr-23-1886' AND (event_name ILIKE '%rule 20%' OR
event_name ILIKE '%competenc%' OR event_name ILIKE '%incompet%') ORDER BY event_json__date;
```

Result: 23 Rule 20-related events spanning Jan 25, 2023 through Oct 6, 2025

A3 — Event and Document Counts

```
SELECT COUNT(*) as total_events, COUNT(*) FILTER (WHERE event_name ILIKE '%rule 20%' OR event_name
ILIKE '%competenc%' OR event_name ILIKE '%incompet%') as rule20_events, MIN(event_json__date) as earliest,
MAX(event_json__date) as latest FROM parents_case_events WHERE case_uid = 'case:27-cr-23-1886';
```

Result: 246 total events, 23 Rule 20-related, span Jan 24, 2023 – Dec 2, 2025

A4 — Document Count

```
SELECT COUNT(*) as doc_count, MIN(filing_date) as earliest, MAX(filing_date) as latest FROM children WHERE
case_uid = 'case:27-cr-23-1886';
```

Result: 200 documents, filing dates Jan 24, 2023 – Jul 2, 2025

A5 — Web Search Source URLs

Market data was sourced from the following URLs (accessed February–March 2026):

Virtual Production: marketsandmarkets.com/Market-Reports/virtual-production-market-264844353.html | grandviewresearch.com/industry-analysis/virtual-production-market

VR Gaming: grandviewresearch.com/industry-analysis/virtual-reality-in-gaming-market | nextmsc.com/report/virtual-reality-vr-gaming-market-ic3531

Military Simulation: mordorintelligence.com/industry-reports/military-simulation-and-training-market | grandviewresearch.com/industry-analysis/military-simulation-and-virtual-training-market

Virtual Fitness: mordorintelligence.com/industry-reports/virtual-fitness-market | precedenceresearch.com/smart-fitness-market

Metaverse/Spatial: grandviewresearch.com/industry-analysis/metaverse-market-report | mordorintelligence.com/industry-reports/spatial-computing-market

Patent Data: patents.justia.com/patent/11577177 | patents.justia.com/patent/11810254 | patents.google.com/patent/US11577177B2

Netflix/Scanline: about.netflix.com/en/news/bringing-more-vfx-magic-to-our-members-with-scanline-vfx | variety.com/2021/digital/news/netflix-acquires-scanline-vfx-stranger-things-1235116974/

Comparable Transactions: spectrum.ieee.org/google-highlights-value-of-patents-in-motorola-sale-to-lenovo | channelfutures.com/unified-communications/consortium-to-buy-nortel-patent-portfolio-for-4-5-billion