KITMAN LABS

THE EVOLUTION OF SPORTS SCIENCE & ANALYTICS

Explore the key developments and milestones in sports science and analytics across various sports. Witness the transformation from basic statistical measures to advanced technological integration and data-driven decision-making.

19 & 20TH CENTURY

- **1870s - 1910s:** Introduction of basic baseball statistics such as batting average, earned run average (ERA), and fielding percentage.

1950s

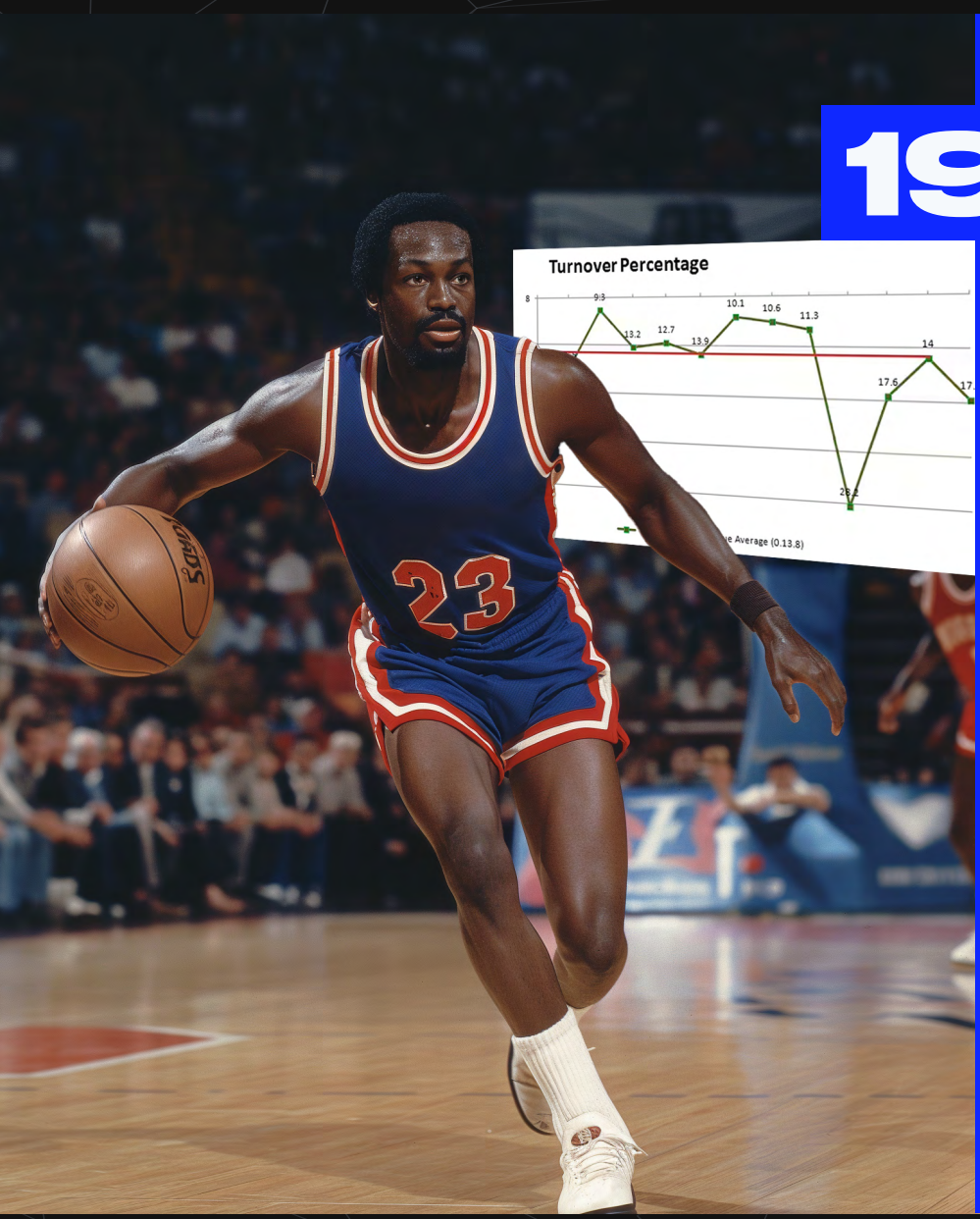
- **1950s:** The Hungarian national team begins using statistical analysis to refine their tactics, contributing to their success in international competitions.
- **1950s:** Charles Reep is considered the first sports analyst and the pioneer of sports analytics in professional football (soccer).

1960s

- **1964:** The publication of Earnshaw Cook's "Percentage Baseball", one of the first books to apply statistical analysis to baseball.

1970s

- **1970s:** The Dutch national team introduced "Total Football" under Rinus Michels and Johan Cruyff, emphasizing fluidity and position interchangeability, laying the groundwork for modern tactical analysis.



1980s

- **1984:** The Society for American Baseball Research (SABR) officially adopts the term "sabermetrics."
- **1985:** Bill James begins publishing his annual "Baseball Abstracts," which popularizes the Pythagorean wins formula known as sabermetrics, a new way of analyzing baseball statistics.
- **1989:** The rise of advanced stats in sports broadcasting marked a more analytical approach to NBA and other sports leagues.

1990s

- **1998:** The publication of “Total Hockey” introduces advanced statistics to ice hockey.

2000s

- **2002:** The introduction of the “Adjusted Plus Minus” system in basketball.
- **2003:** Michael Lewis’s book “Moneyball: The Art of Winning an Unfair Game” was published. It details how the Oakland Athletics used sabermetrics to build a competitive team on a limited budget.
- **2006:** Jens Lehmann used an “analytics note” to learn the penalty-taking habits of Argentina’s players, helping Germany secure victory.
- **2006:** Hawk-Eye technology was introduced in tennis at the 2006 US Open for line calls and later in cricket during the 2008/09 season for reviewing umpire decisions.
- **2008:** The British cycling team utilized marginal gains to secure Olympic gold medals.

2010s

- **2010:** Introduction of GPS tracking technology in soccer, allowing precise monitoring of player movements, workloads, and fitness levels
- **2010:** The decline of the mid-range shot in the NBA started when teams began prioritizing three-point shooting and the efficiency of three-pointers, as highlighted by advanced analytics.
- **2010:** The concept of Expected Goals (xG) is introduced in football wahich quantifies the quality of goal-scoring chances, revolutionizing football analytics.
- **2014:** Goal-line technology was introduced at at the FIFA World Cup to determine if the ball had crossed the goal line.
- **2015:** Major League Baseball (MLB) introduced Statcast, which provides advanced metrics such as exit velocity and launch angle.

2020s

- **2020:** Increased AI and machine learning use in sports analytics, including predictive modeling and injury prevention.
- **2021:** The adoption of biometric data to monitor athlete health and performance in real time.
- **2021:** Kevin De Bruyne used data analytics to negotiate his new contract with Manchester City in 2021.

2022: Kitman Labs' **iP: Intelligence Platform** is launched as the first centralized cloud-based platform designed to aggregate thousands of data points and integrate hundreds of data providers and vendors into a single, integrated advanced operating system replacing legacy AMS & EMR systems.

References:

Wikipedia | *Soccer Blade* | *Built In* | *Analytics Vidhya* | *The STA Group* | *The Football History Boys* | *Analytics Vidhya* | *Catapult* | *NacSport* | *Harvard Business Review* | *StatsBomb* | *BBC Sport* | *Basketball Fandom* | *Training Ground Guru* | *Inside FIFA* | *Hoops Habit*

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