



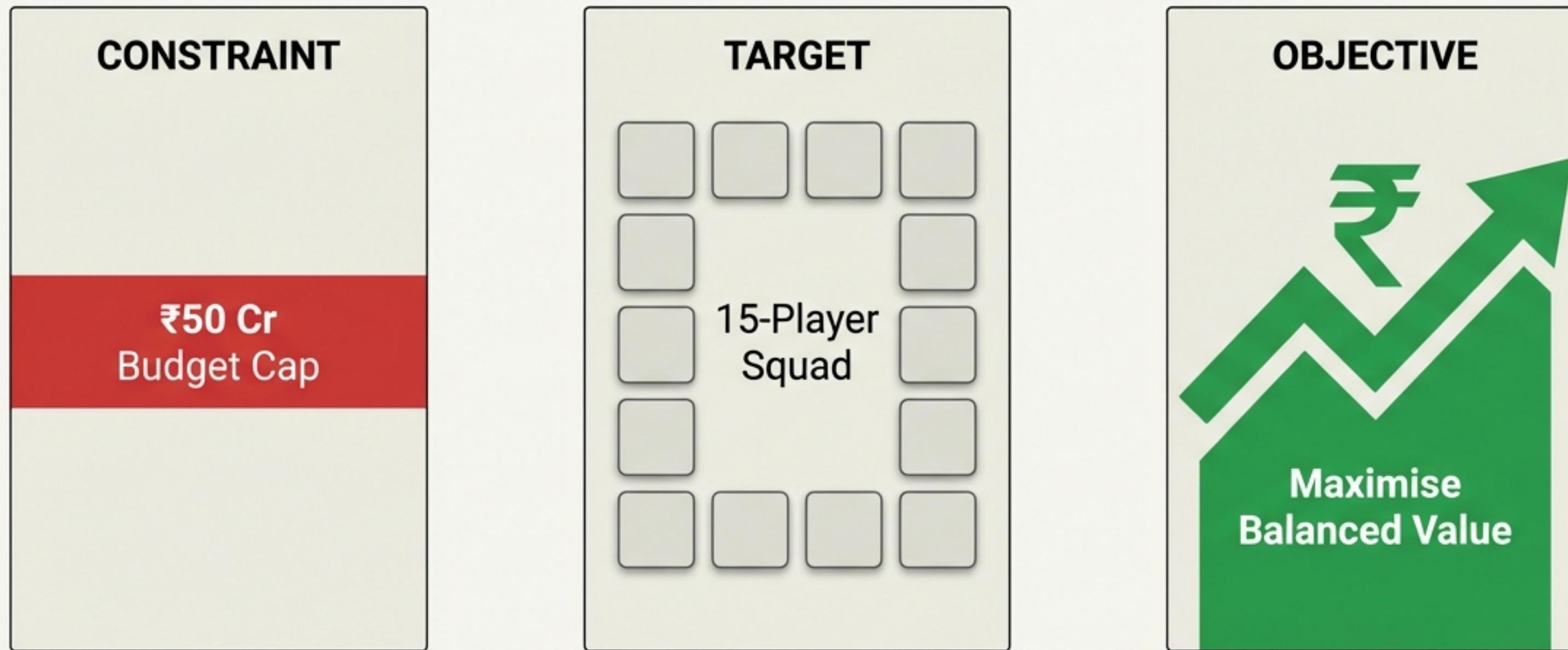
# Team Shadow: Data-Driven IPL Squad Selection (2022)

Balancing Performance, Role Impact & Auction Value.

STRATEGY & ANALYTICS REPORT

# The Optimisation Challenge

In the IPL, the budget is finite, but talent contribution is variable.



The goal is not simply to spend the full purse, but to maximise the **Win Probability per Rupee** spent.

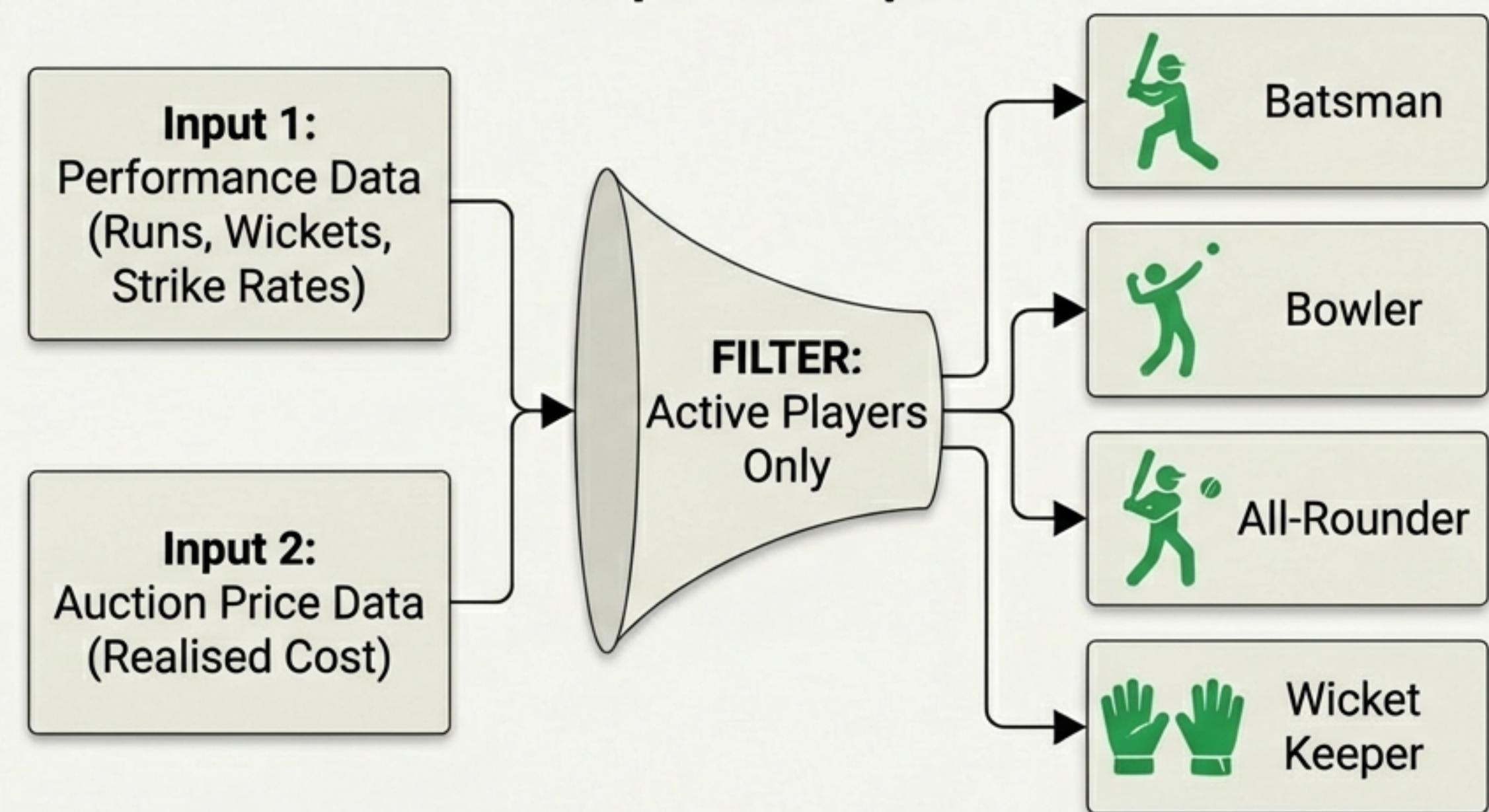
# The Foundation of Truth

Our model rejects reputation in favour of verified historical data.

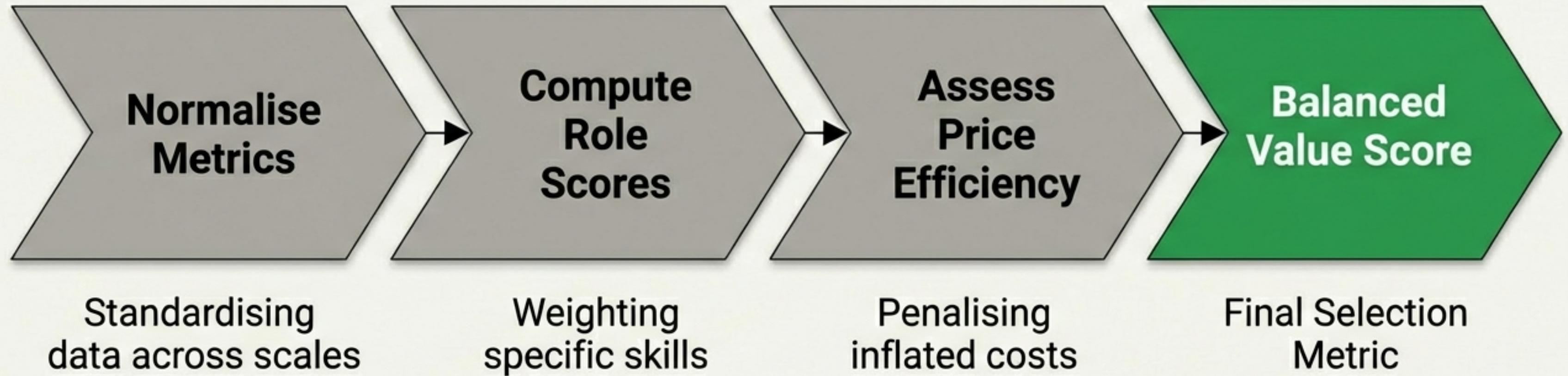
Inputs are derived strictly from granular 2022 performance metrics and official auction price realities.

We filter for active participation only—players with zero matches batted are excluded to remove statistical noise.

## Input vs Output



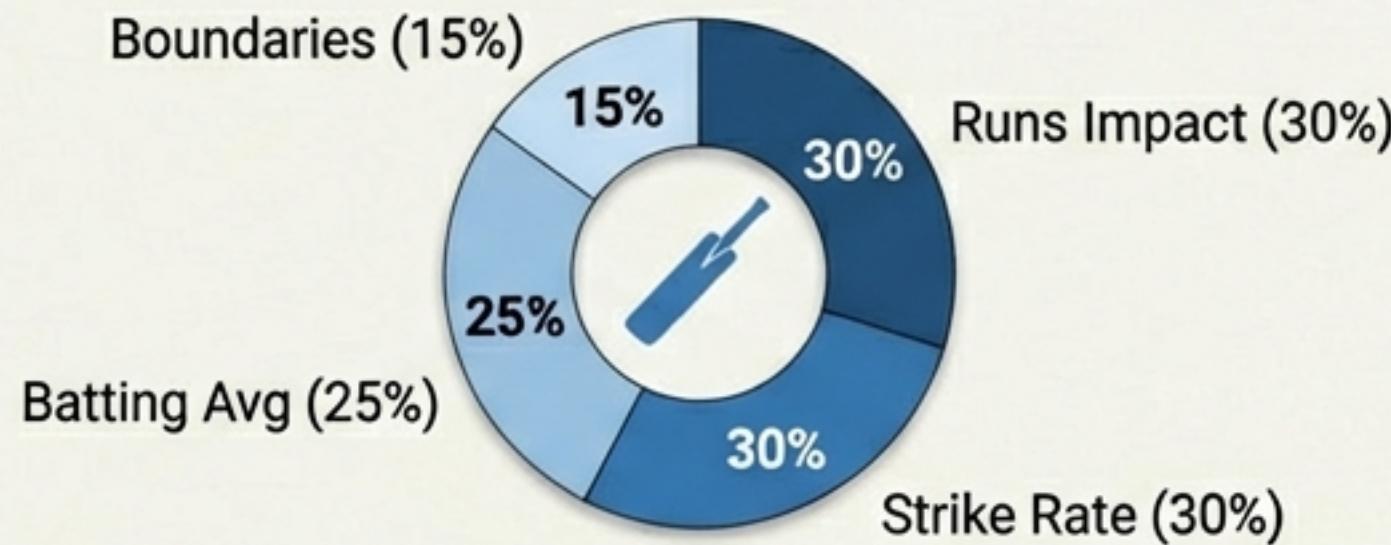
# The Selection Funnel



# Quantifying Skill by Role

Weighting the metrics that drive match outcomes.

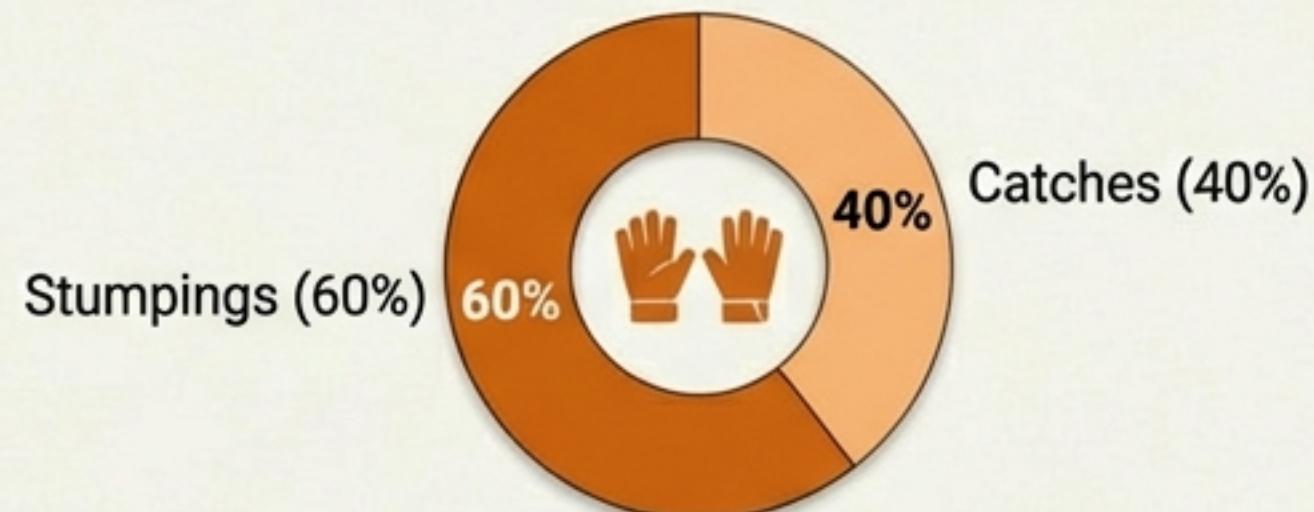
## BATSMAN SCORE



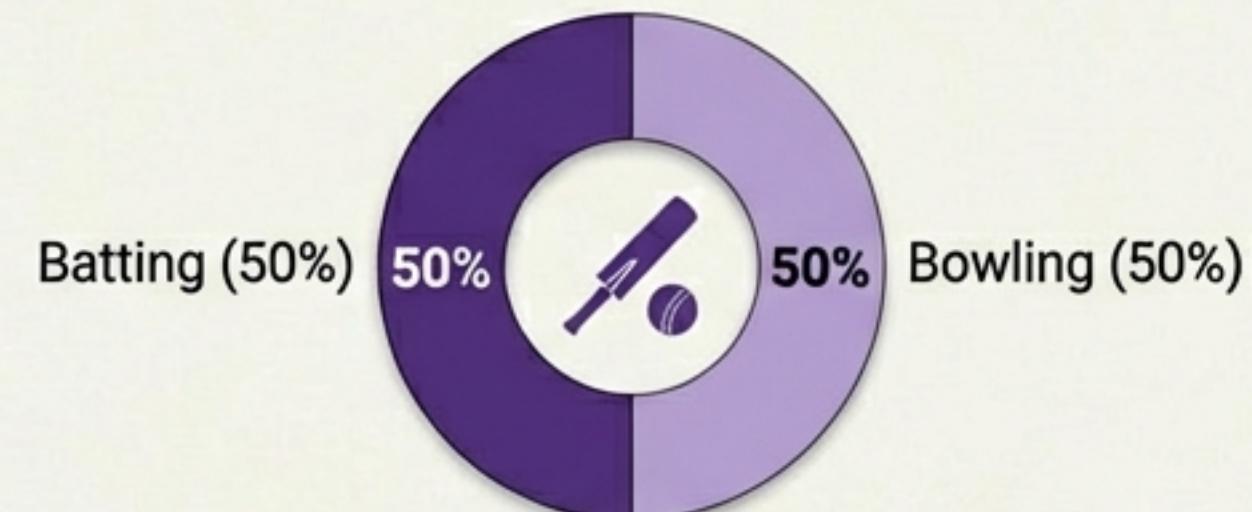
## BOWLER SCORE



## WICKET KEEPER SCORE

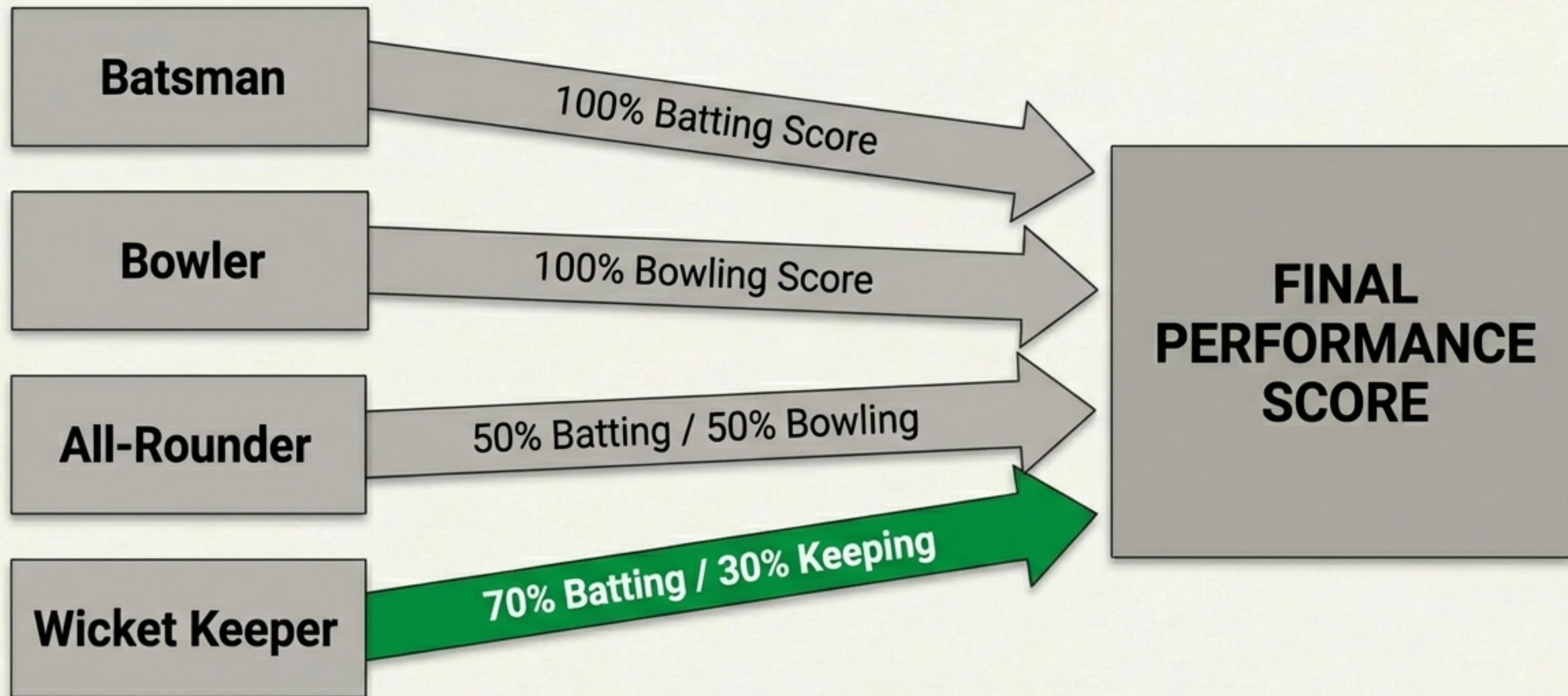


## ALL-ROUNDER SCORE



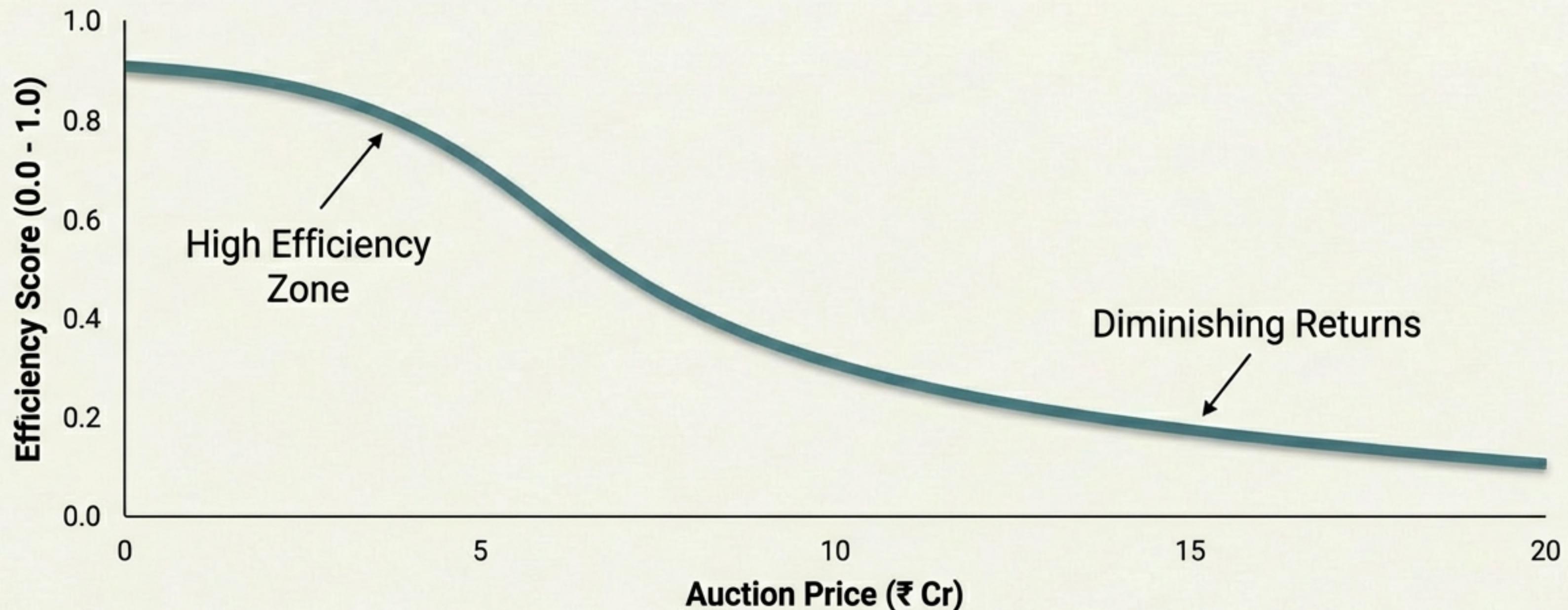
# Synthesising the 'Pure Cricketer'

Generating a Final Performance Score before price is considered.



# The Economics of Selection

A great player at an inflated price is a strategic liability.



**Price Efficiency = Inverse of Normalised Auction Price**

# The Balanced Value Score

The ultimate sorting logic for Team Shadow.

$$\left[ \begin{array}{l} 70\% \text{ Final} \\ \text{Performance} \\ \text{Score} \end{array} \right] + \left[ \begin{array}{l} 30\% \text{ Price} \\ \text{Efficiency} \end{array} \right] = \text{BALANCED} \\ \text{VALUE}$$

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*Finding high-impact players who don't break the bank.*

# The Performance King: Kuldeep Yadav

When ignoring price, Kuldeep is statistically the most dominant player in the dataset. He leads in pure bowling impact, combining excellent economy with wicket-taking ability.

**Final Performance Score:**  
0.745 (Highest in Squad)

## Kuldeep Yadav

BOWLER

Price: ₹2.00 Cr

Economy Rate: **Excellent**

Wickets: **High**

Bowling Avg: **Elite**

# The Strategic Anchor: David Warner

Warner is the 'Steal of the Match' purely on strategic value. Although expensive, his batting impact is so significantly higher than his peers that he remains a necessary luxury.

**Comparison Note:** While Kuldeep represents efficiency, Warner represents the specific high-performance threshold required to anchor the batting lineup.

## David Warner

BATSMAN

Price: ₹6.25 Cr

Batting Impact: Elite

Strike Rate: High

Performance Score: 0.73

# Team Shadow: The Final 15

PLAYER NAME	ROLE	PRICE (₹ Cr)	PERF SCORE
Kuldeep Yadav	Bowler	2.00	0.745
David Warner	Batsman	6.25	0.730
Umesh Yadav	Bowler	2.00	0.680
Wriddhiman Saha	Wicket Keeper	1.90	0.650
Devon Conway	Batsman	1.00	0.640
Maheesh Theekshana	Bowler	0.70	0.620
Bhanuka Rajapaksa	Batsman	0.50	0.610
Dwaine Pretorius	All-Rounder	0.50	0.590
Jitesh Sharma	Wicket Keeper	0.20	0.580
Mohsin Khan	Bowler	0.20	0.575
Mukesh Choudhary	Bowler	0.20	0.570
Ayush Badoni	All-Rounder	0.20	0.560
Rajat Patidar	Batsman	0.20	0.555
Kuldeep Sen	Bowler	0.20	0.550
Suyash Prabhudessai	All-Rounder	0.20	0.540

# Efficiency Achieved

A competitive squad built using less than 40% of the allowed budget.

**₹19.95 Cr**

**TOTAL COST**  
(vs ₹50 Cr Budget)

**15**

**PLAYERS  
SELECTED**

**MET**

**ROLE REQUIREMENTS  
CHECK**

- [x] 2 Wicket Keepers
- [x] 3 Batsmen
- [x] 3 Bowlers

# Why This Model Wins

## CONTEXT AWARE

Role-specific scoring (e.g., stumpings for Keepers) ensures we judge players on what they actually do, not generic fantasy points.

## PRICE CONSCIOUS

Inverse price weighting penalises inflation and prevents overspending on hype, maximizing the efficiency of every Rupee.

## BALANCED

The 70/30 split ensures we never sacrifice on-field quality just to save in money. We buy performance, not just cheapness.



# TEAM SHADOW

Built by data, not reputation.