

FlowSight

“AI-powered Predictive Project Intelligence
Dashboard”

Problem Statement

- According to the **Project Management Institute (PMI)**, 35% of projects fail to meet their original goals and 45% experience delays or budget overruns due to poor visibility and lack of predictive insight.
- **McKinsey's research** shows that large IT projects run **45% over budget** and **7% over schedule** on average — leading to billions in lost productivity annually.
- Most PMs and analysts still rely on **retrospective metrics** (e.g., burndown charts, velocity history), not **predictive analytics**, to identify upcoming risks.

Causes:

- Gallup (2023) found that 76% of employees experience burnout due to misaligned workloads and unclear delivery timelines.
- A Slack Future Forum survey revealed that teams with better data visibility into project progress have 32% higher productivity and lower stress levels.
- Teams use multiple disconnected platforms — Jira for tickets, Slack for communication, Excel for reporting, Power BI for analytics — but lack one unified intelligence layer.

FlowSight

Solution Overview

FlowSight integrates sprint metrics, resource data, and communication trends to forecast potential project risks and recommend preventive actions before problems occur. It transforms scattered project data into a **predictive, actionable dashboard**, bridging analytics and decision-making for managers and teams alike.

:Goal:

To predict delivery risks, identify bottlenecks, and measure team productivity & morale using project and sprint data — integrating analytics + ML + visualization.

Work

On

Time

Core Features

1. Predictive Sprint Risk Engine

An AI-Powered system that analyzes past sprint data to predict the probability of delay in upcoming sprints

It takes inputs like sprint velocity, points, team size, avg task delay, breakdown rate to analyze

Uses Machine learning model to delay likelihood and displays risks as High / Medium / Low along with factors

Gives advance visibility into likely delays & Enables proactive interventions (reallocation, rescoping).

A composite score that measures team morale, workload balance, and communication patterns to prevent burnout.

2. Team Health & Burnout Index

Tracks task load per person, task churn rate, average completion time, and time since last sprint break.

Reduces team burnout incidents by up to 40%. Helps to make **human-centric decisions** with data.

Improves planning accuracy by 20–30%.. Enables dynamic sprint goal-setting.

3. Forecast Dashboard

A time-series forecast model that predicts future sprint velocity expected completion trends

Expected sprint velocity next week: 33 (vs current 27). if current trend continues

Uses historical velocity data and current story load Applies forecasting models Displays trendline graphs of projected vs actual performance.

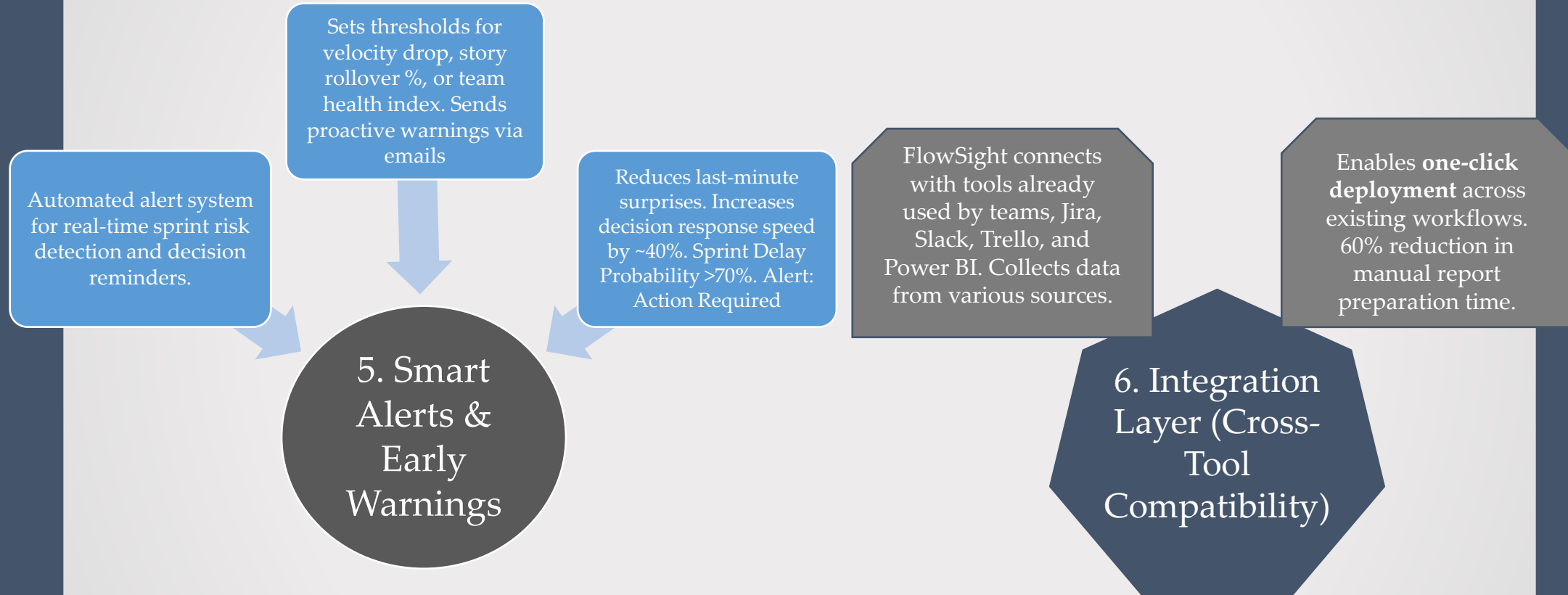
4. Resource Optimization Engine

An intelligent system that recommends task reallocation and team balancing to improve productivity. AI recommends task reallocation and workload balancing

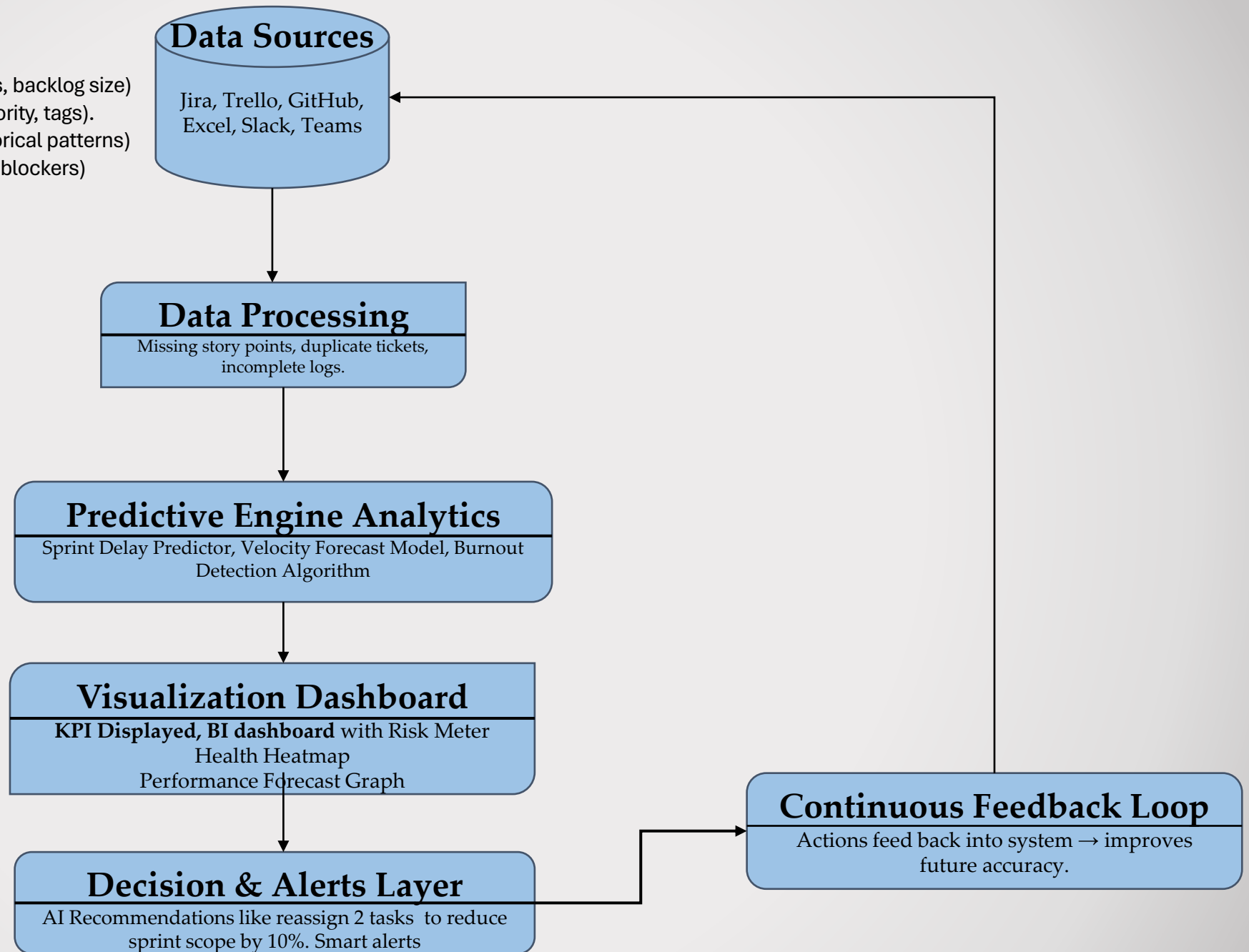
Analyzes per-member task count, velocity, and average delay. Detects over-assigned members or underutilized ones. Increases average team utilization efficiency by 12–15%. Balances workload

Shift 2 story points from Team A (velocity 22) to Team B (velocity 34) i.e. reduces sprint delay risk by 15%

Continue...



- ❑ Sprint metadata (start & end dates, sprint goals, backlog size)
- ❑ Story-level details (story points, status, priority, tags).
- ❑ Developer velocity (task completion time, historical patterns)
- ❑ External factors (holidays, dependencies, blockers)



KEY PERFORMANCE INDICATORS (KPI)

2. Sprint Performance KPIs

Average Sprint Velocity

Completed story points / sprint with target of 10-20% increase

On-Time Sprint Completion Rate

Sprints finished on or before deadline with target of $\geq 85\%$

Commitment Reliability

(Delivered / Committed story points) $\times 100$ with a target of 90%

3. Team Efficiency & Health KPIs

Task Redistribution Impact

Change in workload balance after AI suggestions with a target of lesser than 20% deviation

Context Switching Index

Avg. task type changes per member with a target of reducing it

Sprint Burndown Consistency

% of days following planned burndown curve with a target of increasing it

1. Predictive Accuracy KPIs

Prediction Accuracy

% of sprints where predicted completion time matched actual outcome. With a target of 80% improvement

Risk Alert Precision

% of "high-risk" alerts that actually led to delay

Recall (Sensitivity / True Positive Rate)

Out of 25 real risky sprints, your model detected 20 i.e. Recall = 80%.

4. Business / Strategic KPIs

Delivery Predictability Index

Variance
B/W planned vs actual release timeline, reduction of 50%

Stakeholder Satisfaction (CSAT)

It is
measured post-sprint with a target of increasing it

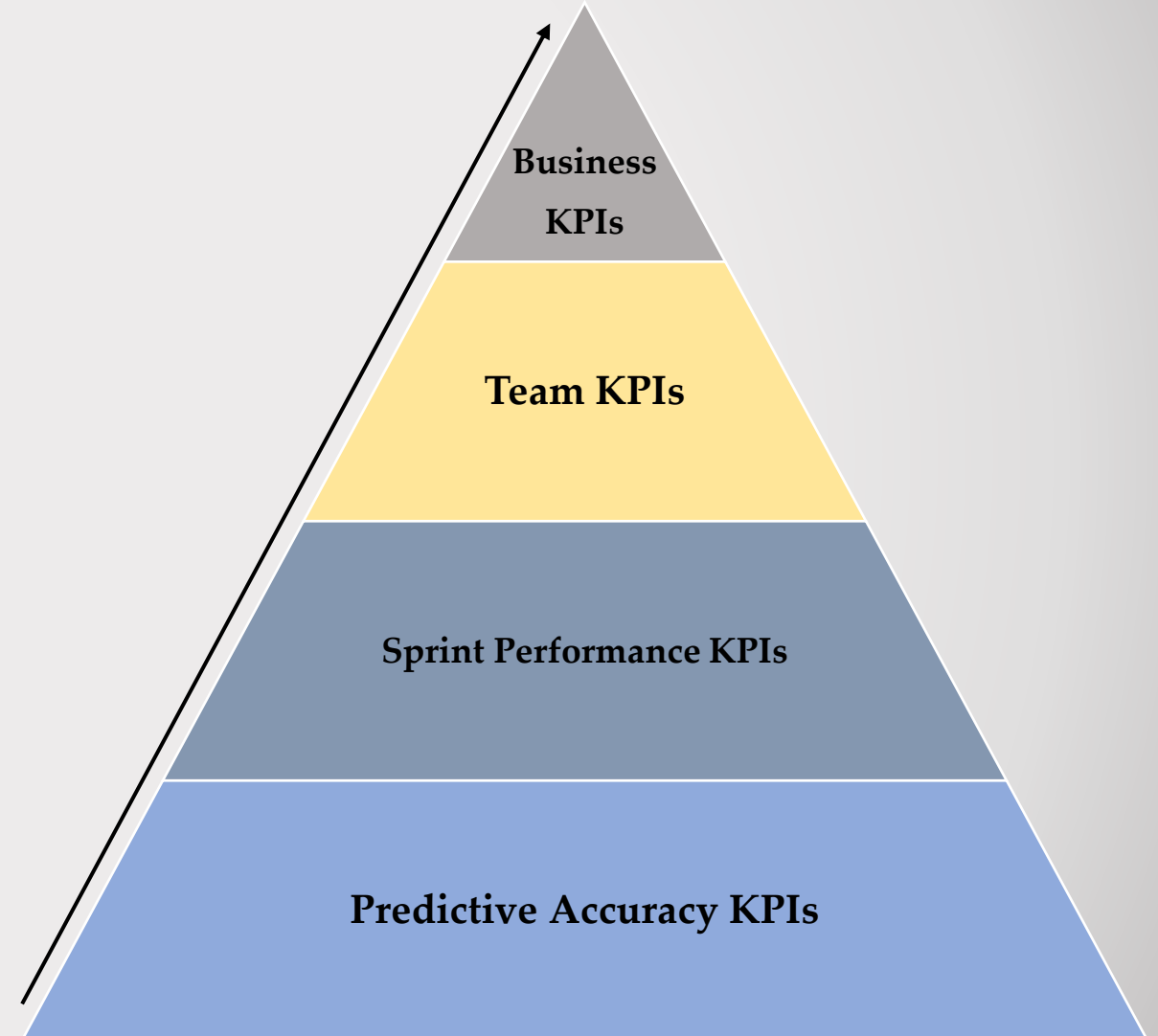
Time-to-Delivery (TTD)

=
Date Released to Production —
Date Planned in Sprint. With a target of reducing it.

Sprint Cost Efficiency

Evaluates if the sprint investment is yielding proportionate output. Factors like hours, avg cost/hr. FlowSight increases efficiency by improving predictability and reducing rework.

KPI Metrics Pyramid



FlowSight- Predictive analytics dashboard

Sprint Details

Sprint 24
14 days
planned story points: 40
planned velocity: 35

Current Sprint Details Panel

Completed: 34 SP | Remaining: 16 SP
Actual Velocity: 7 SP/day | Required: 9 SP/day
Blockers: 4 active | Burndown Deviation: -18%
Workload: Moderately Balanced

KPI SCORE CARDS

Sprint Risk

HIGH
High Risk

At-Risk Story Points

20 SP
Stories likely to spill over or be delayed

Delay Probability

65%
Predicted Likelihood of sprint delay

Risk Calculation Score:

- 1. Velocity Deviation:- 23%
- 2. Blocker Severity :- High
- 3. Burndown Deviation :- 1%
- 4. Workload Balance:- Moderate
- 5. Story Churn Scope : 0.5

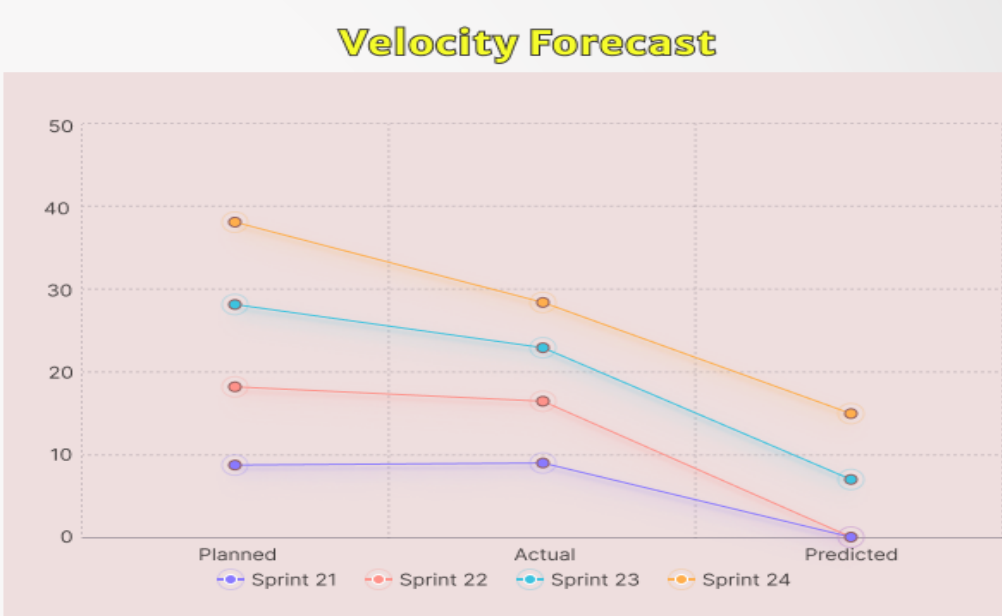
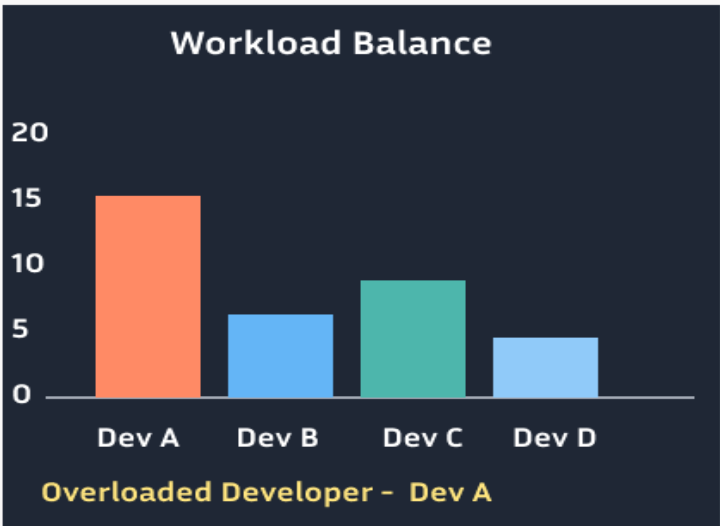
Blocker Impact Panel

No. of active Blockers :- 3
Blocker Severity:- High
Blocker Aging :- 4d
Stories Affected:- 10

Score

0.60
0.80
0.80
0.50

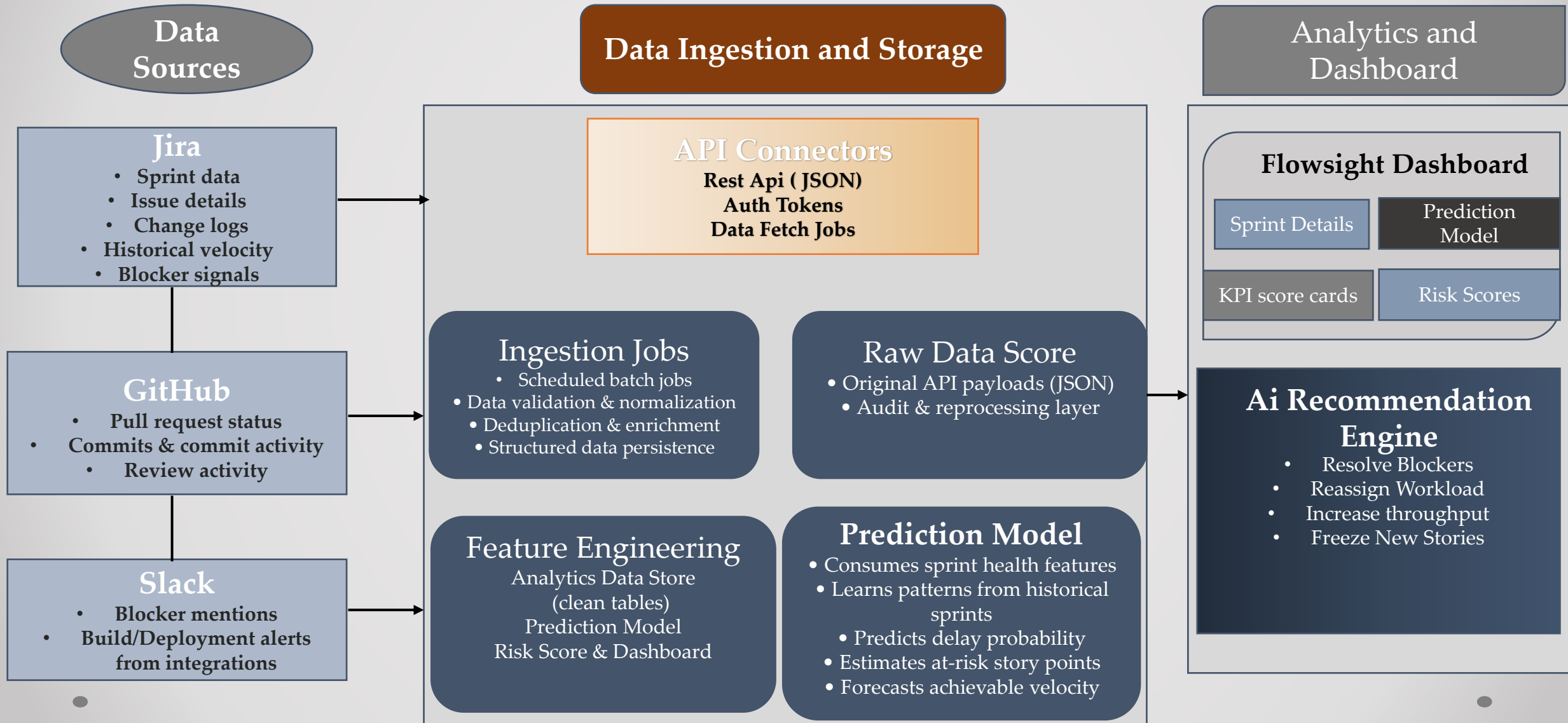
Blocker Impact :- **High**



AI RECOMMENDATIONS

- 1. Resolve 2 critical blockers affecting 12 story points. Blockers are causing major velocity deviation and increasing delay probability.
- 2. Reassign 5–8 SP from Dev A to balance workload. Dev A is overloaded by +6 SP relative to team average.
- 3. Increase team throughput from 5 SP/day to 7 SP/day. Current burndown is 15% below ideal pace.
- 4. Freeze new story additions for this sprint. Story churn exceeds stability threshold.

System Architecture



MVP PHASE

FlowSight's MVP focuses on early sprint risk detection using Jira data only. Instead of descriptive dashboards, it aggregates sprint health signals like velocity deviation and blocker impact to predict delay probability and highlight at-risk work. The MVP also recommends corrective actions, allowing teams to intervene early without adding integration complexity.

Goal:

Detect early sprint risk and explain why it exists & provide simple, actionable recommendations to reduce that risk.

Data Scope:

Only Jira data as Jira already contains:

- Story points
- Sprint plans
- Status changes
- Blockers

And is :

- Faster to integrate
- Most teams already trust Jira
- Lower dependency risk

CORE MVP CAPABILITIES

Sprint Health

- Velocity deviation
- Burndown deviation
- Blocker impact score
- Workload imbalance
- Story churn indicators

Predictive Insights

- Delay probability (%)
- At-risk story points
- Sprint risk level (Low / Medium / High)

Actionable Recommendations

- Resolve high-impact blockers
- Reassign work from overloaded developers
- Freeze scope additions mid-sprint

Business Impact of FlowSight

Impact Area	Before FlowSight	After FlowSight	Change
On-time Sprint Delivery	68%	87%	+19% improvement
PM Time spent on manual tracking/reporting weekly	12 hrs/week	3.5 hrs/week	~70% reduction
Sprint Rework / reopened tasks	22% of tasks	9% of tasks	-13% improvement
Average sprint blocker resolution time	8.4 hours	5.2 hours	-38% faster unblock
Story spillover across sprints	11 tasks per sprint	5 tasks per sprint	54% reduction
Release cycle / feature go-live time	28 days average	21 days average	-25% faster time to value

Estimates based on industry benchmarks and agile delivery studies