EMPIRICAL

Empirical Security builds precision AI tuned to your cybersecurity environment

Local Models

Your enterprise has environmental and telemetry data that should be used in decision making. Empirical unlocks the value of these datasets by training a local model, specific to you and only accessible by you.

Vendors don't know you, like you know you.
Allow your data to drive decision making inside your enterprise.

Get Real-Time CVE Updates

We offer a robust UI and API for data discovery. Our CVE database updates hourly.

Run & Save Searches

Find CVEs by score thresholds, recent score changes, exploitation activity, products, vendors, and more.

Track Model Performance

View vulns distributed by score, compare models over time, and view curated lists of CVEs by Known Exploitation Activity.

How It Works

We ingest your Scanned Assets

Scanner Data, IT Systems, Endpoints, Host Data, Ticketing, CMDB

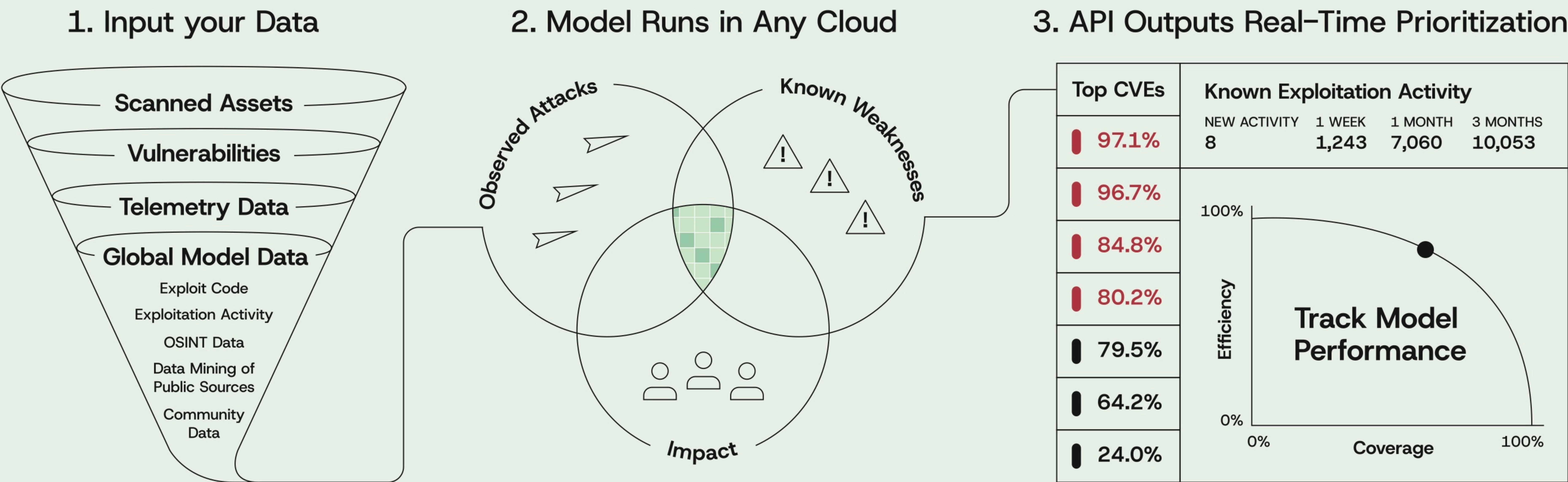### We score your Vulnerabilities

Threat Intel, CVEs, App Code Flaws, Cloud Misconfigs, Pen Tests

We evaluate your Telemetry Data

Attack Data, Alerts, Real-Time Detections, SOC Data, Past Incidents

We integrate our Global Model

Known Exploitation Activity, Discovered Exploit Code, Data Mining

1. Input your Data

- Scanned Assets
- Vulnerabilities
- Telemetry Data
- Global Model Data
  - Exploit Code
  - Exploitation Activity
  - OSINT Data
  - Data Mining of Public Sources
  - Community Data

2. Model Runs in Any Cloud

Observed Attacks

Known Weaknesses

Impact

3. API Outputs Real-Time Prioritization

Top CVEs	Known Exploitation Activity			
	NEW ACTIVITY	1 WEEK	1 MONTH	3 MONTHS
	8	1,243	7,060	10,053
97.1%				
96.7%				
84.8%				
80.2%				
79.5%				
64.2%				
24.0%				

Track Model Performance

Efficiency — 100% / 0%

Coverage — 0% / 100%

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Compare Model Features

ALL MODELS	ALL MODELS	ALL MODELS	ALL MODELS
☑ EPSS ☑ GLOBAL ☑ LOCAL	☑ EPSS ☑ GLOBAL ☑ LOCAL	☑ EPSS ☑ GLOBAL ☑ LOCAL	☑ EPSS ☑ GLOBAL ☑ LOCAL
Predictive Vulnerability Scoring	Hourly Score Updates and Enterprise Support	Legacy Model Support (EPSS v3, v4)	UI and API for Data Discovery & Model Performance
GLOBAL + LOCAL MODELS	**GLOBAL + LOCAL MODELS**	**GLOBAL + LOCAL MODELS**	**GLOBAL + LOCAL MODELS**
☐ EPSS ☑ GLOBAL ☑ LOCAL	☐ EPSS ☑ GLOBAL ☑ LOCAL	☐ EPSS ☑ GLOBAL ☑ LOCAL	☐ EPSS ☑ GLOBAL ☑ LOCAL
Data on over 16,000 exploited in the wild CVEs	Near-Real Time Exploitation Telemetry & Model	ML model for discovering new exploit code on GitHub	All Underlying data contributing to the model exposed
LOCAL MODELS	**LOCAL MODELS**	**LOCAL MODELS**	**LOCAL MODELS**
☐ EPSS ☐ GLOBAL ☑ LOCAL	☐ EPSS ☐ GLOBAL ☑ LOCAL	☐ EPSS ☐ GLOBAL ☑ LOCAL	☐ EPSS ☐ GLOBAL ☑ LOCAL
Custom Vulnerability Model based on your attack telemetry, asset data, vuln data, & threat intelligence	Model Performance Measured against your attack telemetry	Forward Deployed Data Science Team	Only you will have access to your model

We bring measurable impact

Past solutions can't prioritize, assess, and handle effective inference at scale.
With Empirical, our models provide understanding and superior prioritization.

6x
More efficient than CVSS (comparison vs. EPSS, our free model, at 87% coverage)

12.4x
A 1249.04% increase in total exploited CVEs as of January 9th, 2025 compared to CISA Known Exploited Vulnerabilities (KEV)

23x
4925 newly exploited CVEs in the last 12 months, compared to 204 in CISA KEV