

Data Infrastructure Layer For Engineering AI

USED BY ENGINEERING TEAMS AT

BORGWARNER



FEV

CARNOT



BEYOND
AERO



autoneum

BENTELER

THE OCEAN
CLEANUP



Data Infrastructure for Engineering & AI

Engineering data is fragmented across simulation, test, manufacturing and fleet systems. Key Ward turns that chaos into governed datasets and reusable AI-ready workflows, so your engineers go from data to decisions in minutes, not days.

WITHOUT KEY WARD

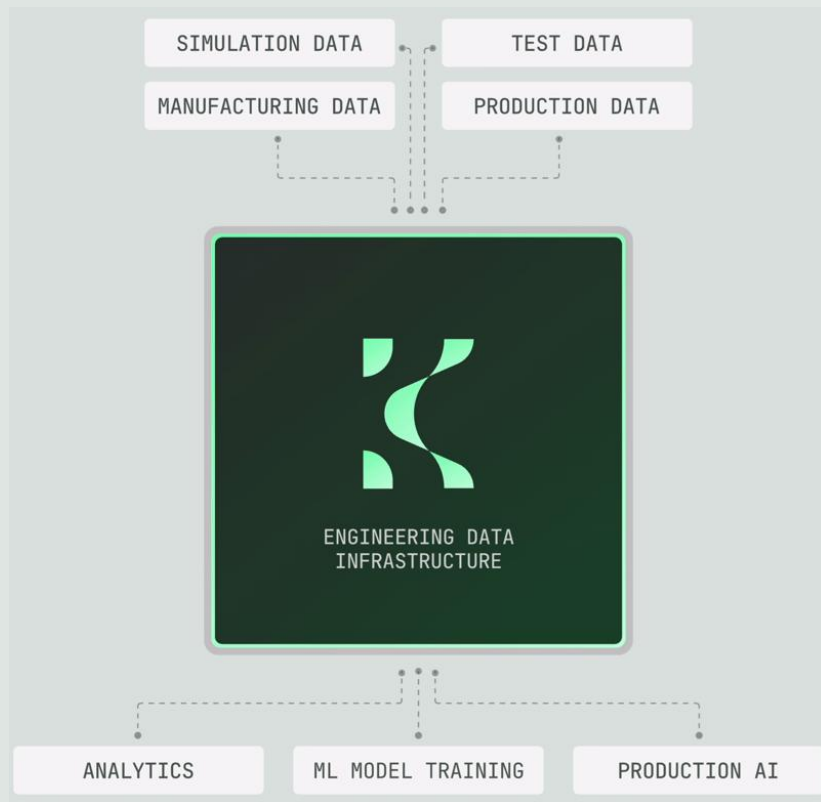
5%

of engineering organizations move AI/machine learning from pilot to production at scale

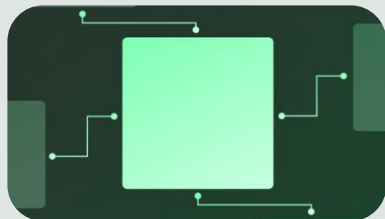
WITH KEY WARD

100%

AI scales across engineering teams and programs

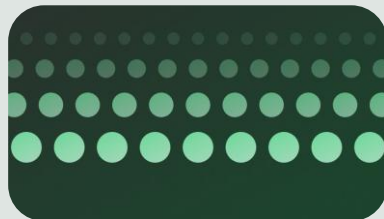


How Engineering Data Becomes AI-Ready



1. Connect Your Engineering Systems

Extract manufacturing, simulation, and testing data from proprietary engineering sources.



2. Structure reusable engineering data assets

Transform & process fragmented engineering data into structured, queryable datasets that can be reused across teams and projects.



3. From one-off analysis to reusable engineering workflows

Instead of rebuilding analysis pipelines for every investigation, turn engineering investigations to reusable workflows. Failure analysis, design exploration, or modeling pipelines can be applied to new datasets, new products and new programs across the organisation.

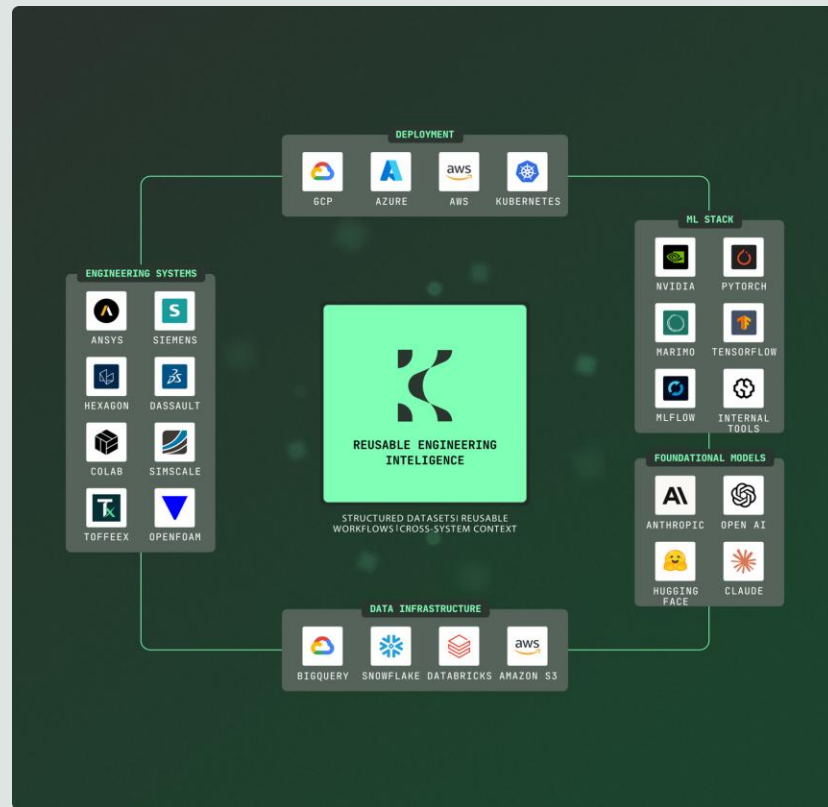


4. Run your AI stack at scale

Deploy Key Ward in your cloud or behind your firewall and run your own AI models or open-source frameworks on structured engineering data without replacing your existing tools.

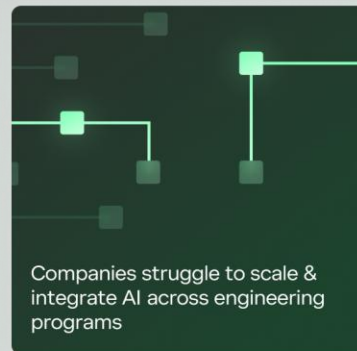
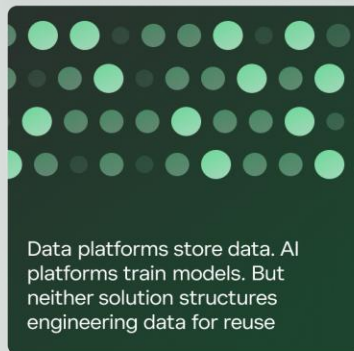
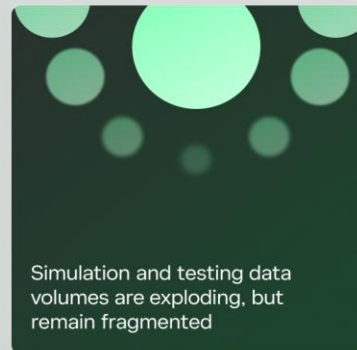
Interoperable Engineering and ML Stacks

Key Ward does not replace your tools. It structures and connects engineering data so your existing systems, pipelines, and machine learning models can operate across simulation, testing, and real-world workflows.



Engineering data is growing exponentially, while data & workflows remain manual and fragmented across teams and projects

Key Ward provides a standardized engineering data infrastructure that structures engineering data into reproducible pipelines, making simulation, test, and manufacturing systems interoperable and AI-ready.



AAC 2026 · JOINT TALK WITH FEV

How FEV uses Key Ward

Next-Generation CAE: Leveraging
Data-Driven Workflows for Virtual
Development

TUE 6 OCT 2026 · 15:05-15:35

Aachen Automotive Colloquium, Kurhaus
Aachen. With FEV Europe and TME, RWTH
Aachen University.

METHANOL ICE · PORT DEVELOPMENT

KPI prediction

A CNN reads each port design as a signed distance field and predicts flow coefficient and charge motion straight from CAD.

>90% Accuracy

CAD engineers check intermediate designs vs. target KPIs themselves – saving CAE loops.

METHANOL ICE · INJECTION

Spray target optimization

Random Forest surrogates trained on a spray CFD DoE rate homogeneity, wall wetting and turbulence, then rank 2,500 spray targets for a final CFD check.

2 New Variants

AI-recommended spray targets beat the best result of the full CFD DoE.

METHANOL ICE · PORT DEVELOPMENT

Flow field prediction

A GeoTransolver reduced-order model predicts the full 3D flow field, which then serves as the start solution for the CFD solver.

~40%

less CFD effort to reach the same high-fidelity result.

CAE / FEA · QUALITY CONTROL

Anomaly detection

Screens solver input decks before a run, then checks results against AI trained on similar cases: KPI outliers, affected regions, assembly-wide deviations.

4 stages

for standardized simulation quality control, from input deck to full assembly.

Already in production. Already self-service.

Customers operate Key Ward on their own data, in their own cloud or behind their firewall. Each new deployment adds agents, skills and ready-to-use templates the next one reuses.



CARNOT

Dr. Jeremy Howard-Knight

Head of Business Development · **Carnot**

Key Ward connects all of our 7 tools and test benches automatically, structured, queryable, ready for AI/ML. Can't wait to be fully migrated.



autoneum

Dr. Thibault Lafont

Technical Expert, Acoustics · **Autoneum**

Deployed across two European sites, unlocks our engineering knowledge, turning internally generated engineering test and formulation data to AI-ready datasets with full data protection.



BEYOND AERO

Dr. Yuchen Leng

Lead Aerodynamics Engineer · **Beyond Aero**

Key Ward helped our engineering program moved beyond brute-force simulation using structured data and ROMs to optimize aerodynamics faster at lower cost and at scale.



BORGWARNER

Andrew Dragon

Senior Development Engineer · **BorgWarner**

Key Ward reduced RFQ time from 1.5 months to days. And it's got a great interface as well.



FEV

Dr. Bastian Morcinkowski

Lead CFD Engineer · **FEV**

Key Ward helped FEV turn simulation data into reusable engineering intelligence that enabled faster convergence, lower cost experimentation and scalable CFD workflows.



camfil

Jonathan Colomb

Calculation Engineer · **Camfil**

We're investing in the right tool. Key Ward is delivering measurable value where non-AI software plus data scientists couldn't, directly inside our pipelines.



YOUR CONTACT AT KEY WARD

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Leading Engineering Partnerships

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SCAN TO SAVE CONTACT

Stop by **Booth 17 · Lichthof** for a demo on real engineering data.

Talk to us about how to turn scattered automotive engineering data into AI-ready datasets, enabling engineering teams to build their own analysis pipelines and train machine learning models without dedicated data science support.