UPTAKE

On Track to Improved Reliability: From Rules to Predictions

Joe Becker Director, Rail Solutions

ABOUT US

Uptake is the predictive analytics partner for industrial businesses. We deliver actionable intelligence that drives and protects growth. Industrial leaders rely on our technology to anticipate costly events and generate new revenues.

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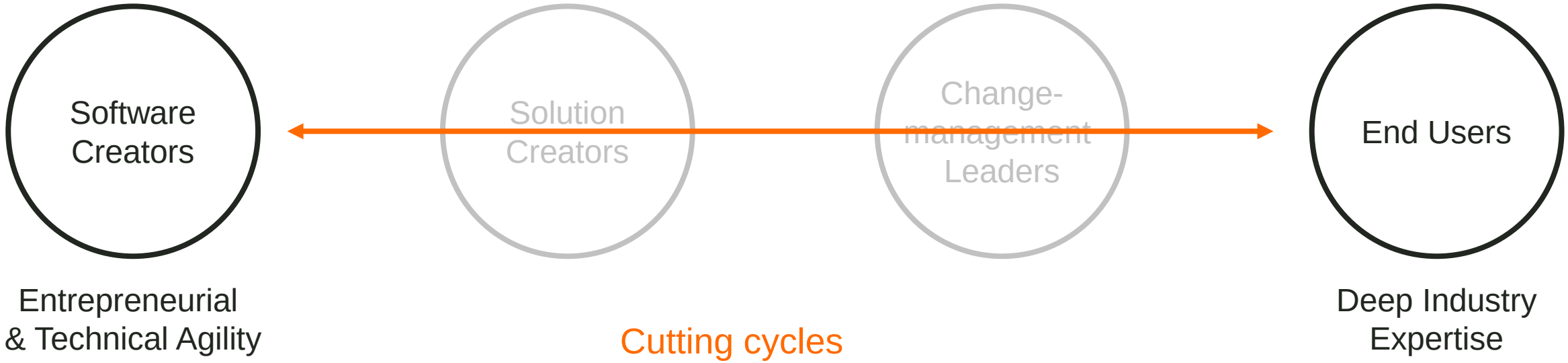

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Co-created solutions = Outcomes

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Influx of Data

Data is growing at a 40% compound annual rate, reaching nearly 45ZB by 2020

Commoditization of Storage

Storage costs have fallen 40% over the last 5 years

Data Science & Machine Learning

The Machine Learning market will reach $15.3B by 2019

Privacy & Security

Encryption at rest,
Encryption in transit

Open Source Ecosystem

78% of companies run on open source

API Proliferation

The number of Public APIs has doubled in the last 18 months

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Raw Data	→	Analysis	→	Value

UPTAKE

Data-as-a-Service Platform

1. Data Ingestion
2. Normalization
3. Leading Data Science
4. Industry-specific context

Increased:

Asset Availability, Asset Health, Reliability, Productivity, Shop Throughput

Decreased:

Repeat Failures, Field Failures, Service Delays, Dwell Time

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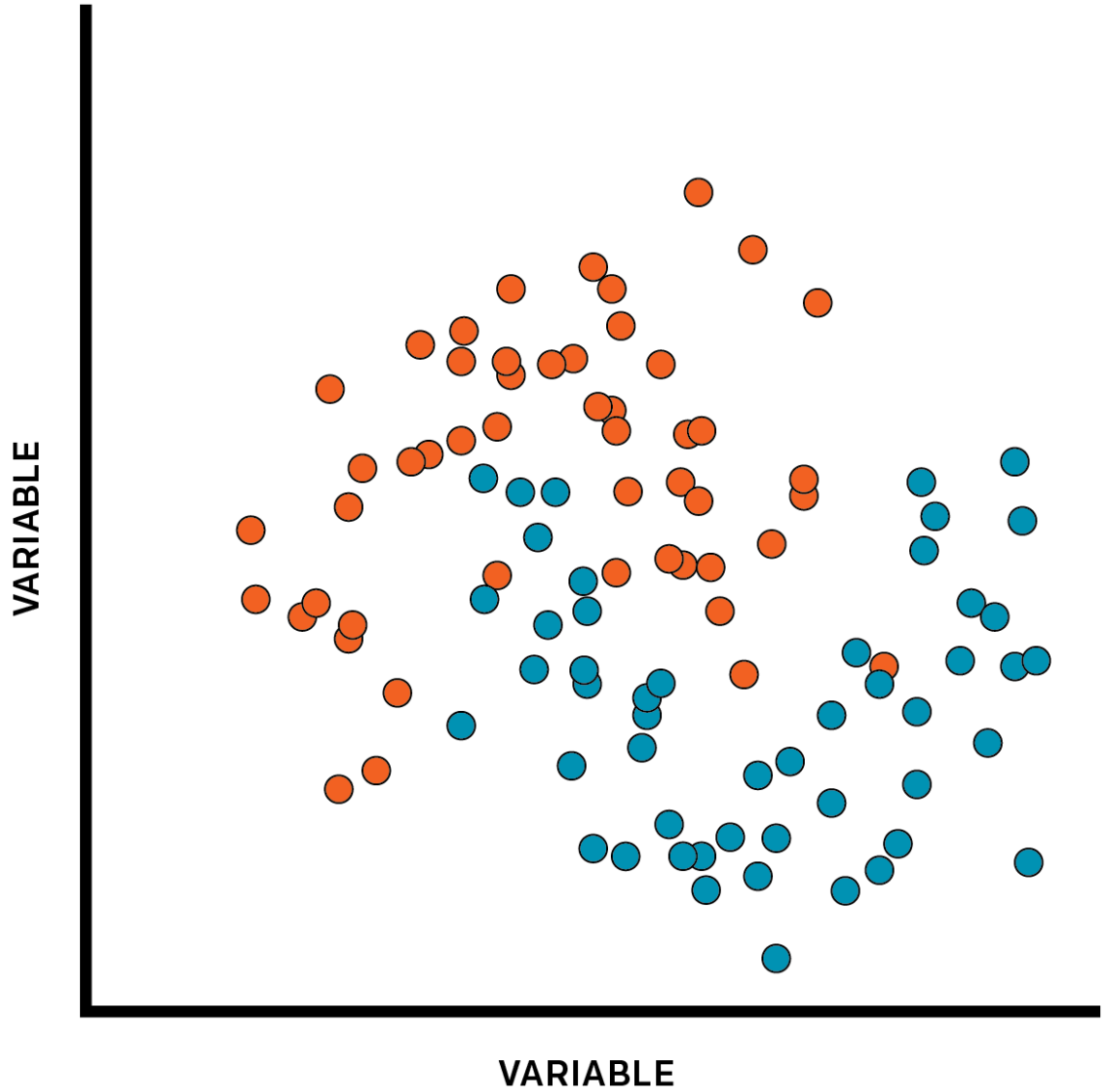

Pattern Recognition

- Data From Healthy Asset
- Data From Risky Asset

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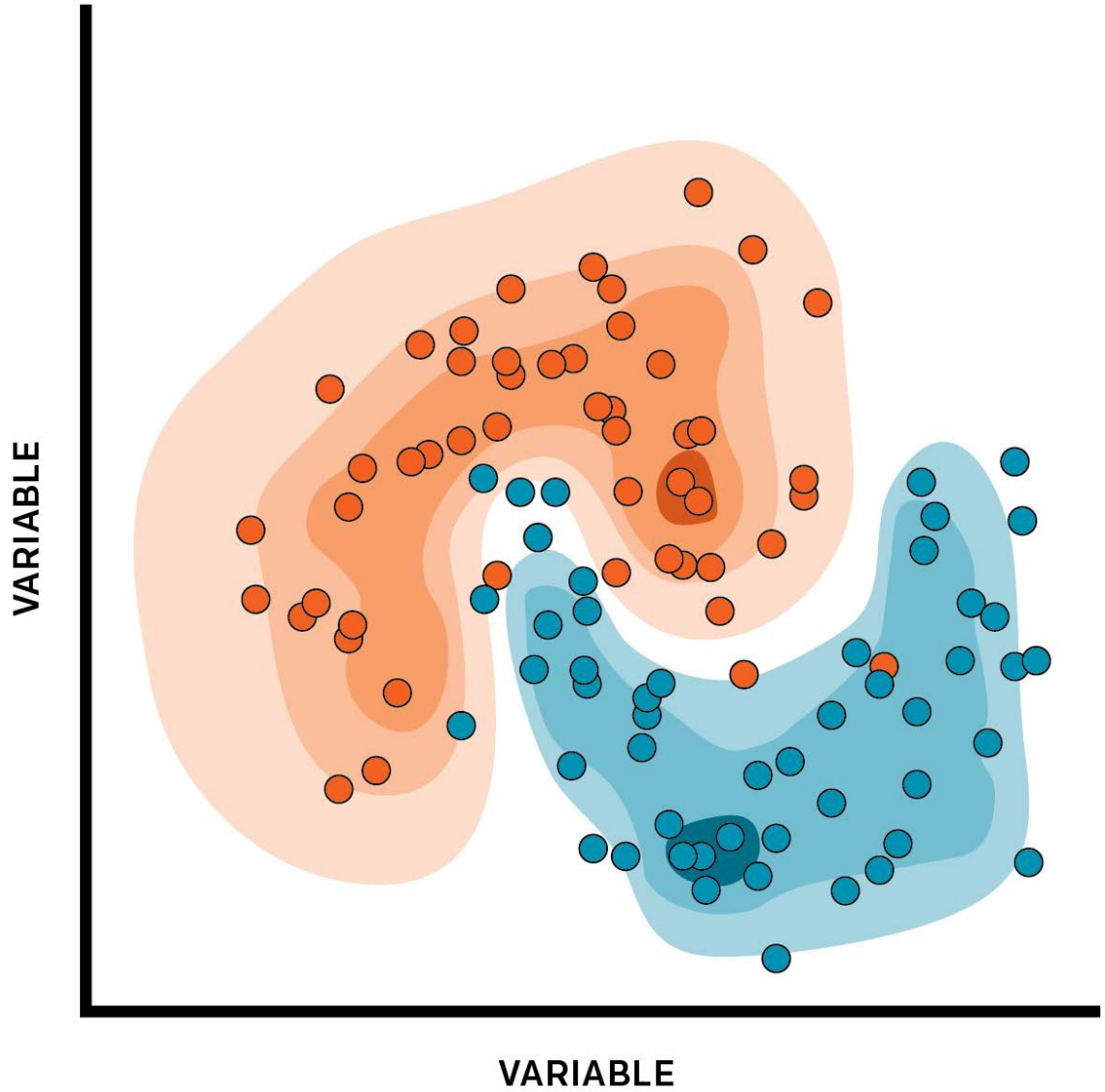

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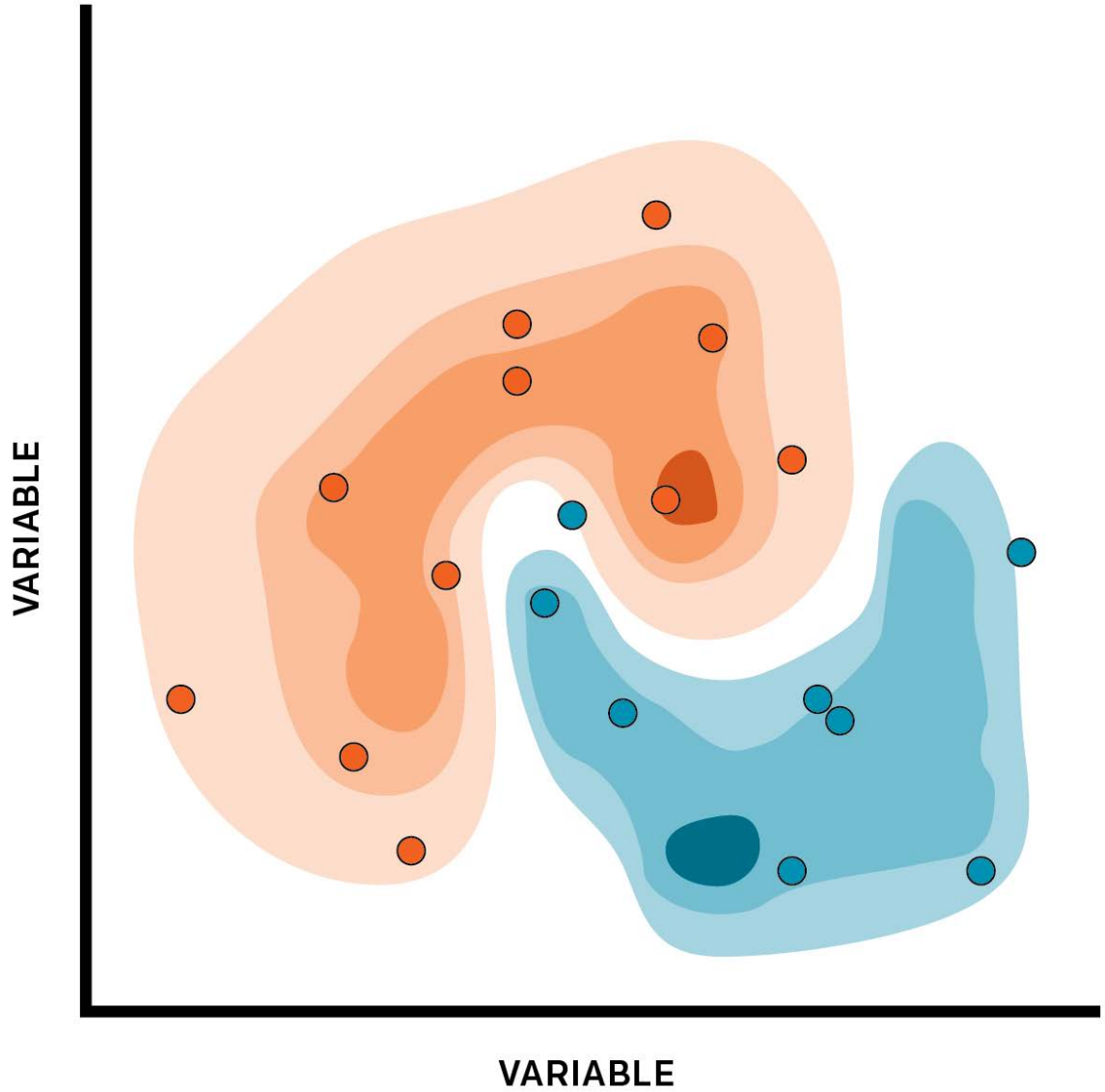

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Prognostics for moving assets…considerations:

1. Connectivity
2. Data is only transmitted when the machine is on
3. Failure and repair data is often unreliable and inconsistent
4. Root cause of failure is difficult to ascertain
5. Spectrum of faults is very wide…many faults
6. Large quantity of signal data
7. Sensor limitations
8. High value failures are rare

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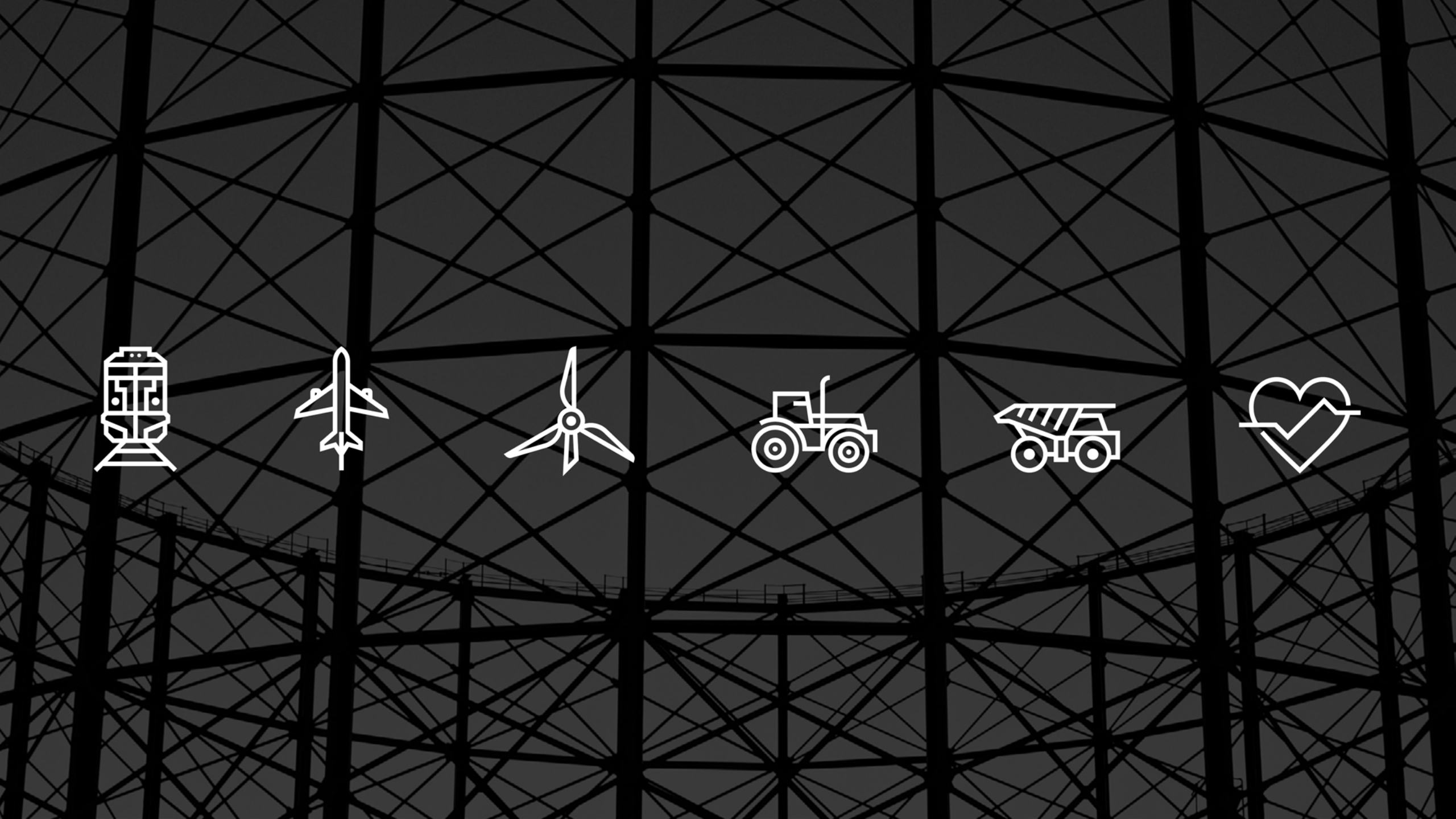

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