Plattform Netzwerk Treffen Heidelberg

Enterprise Ready AI from SAS.

Udo Sglavo

Vice President, Applied AI and Modeling R&D

SAS Institute, Cary, NC

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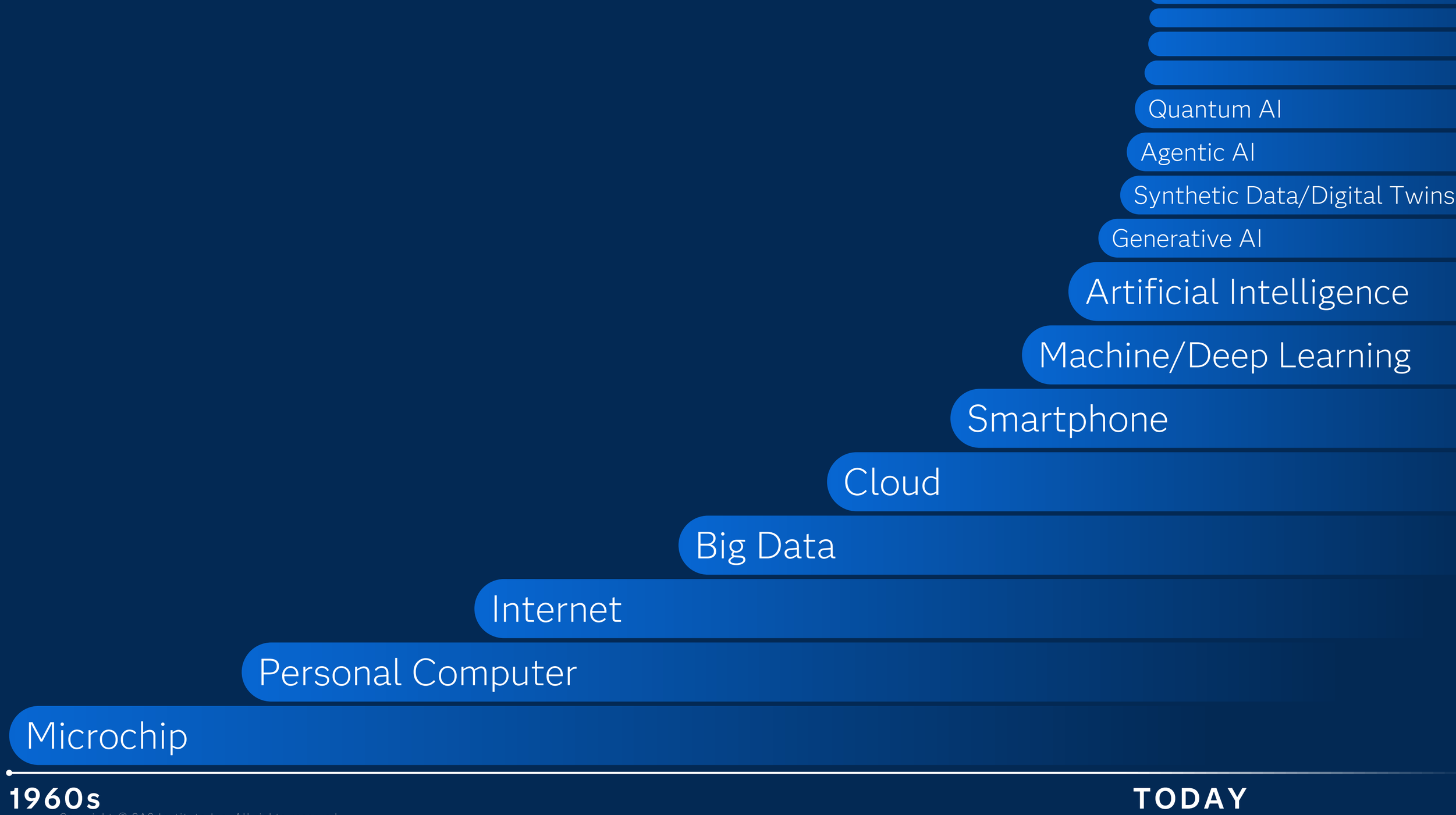

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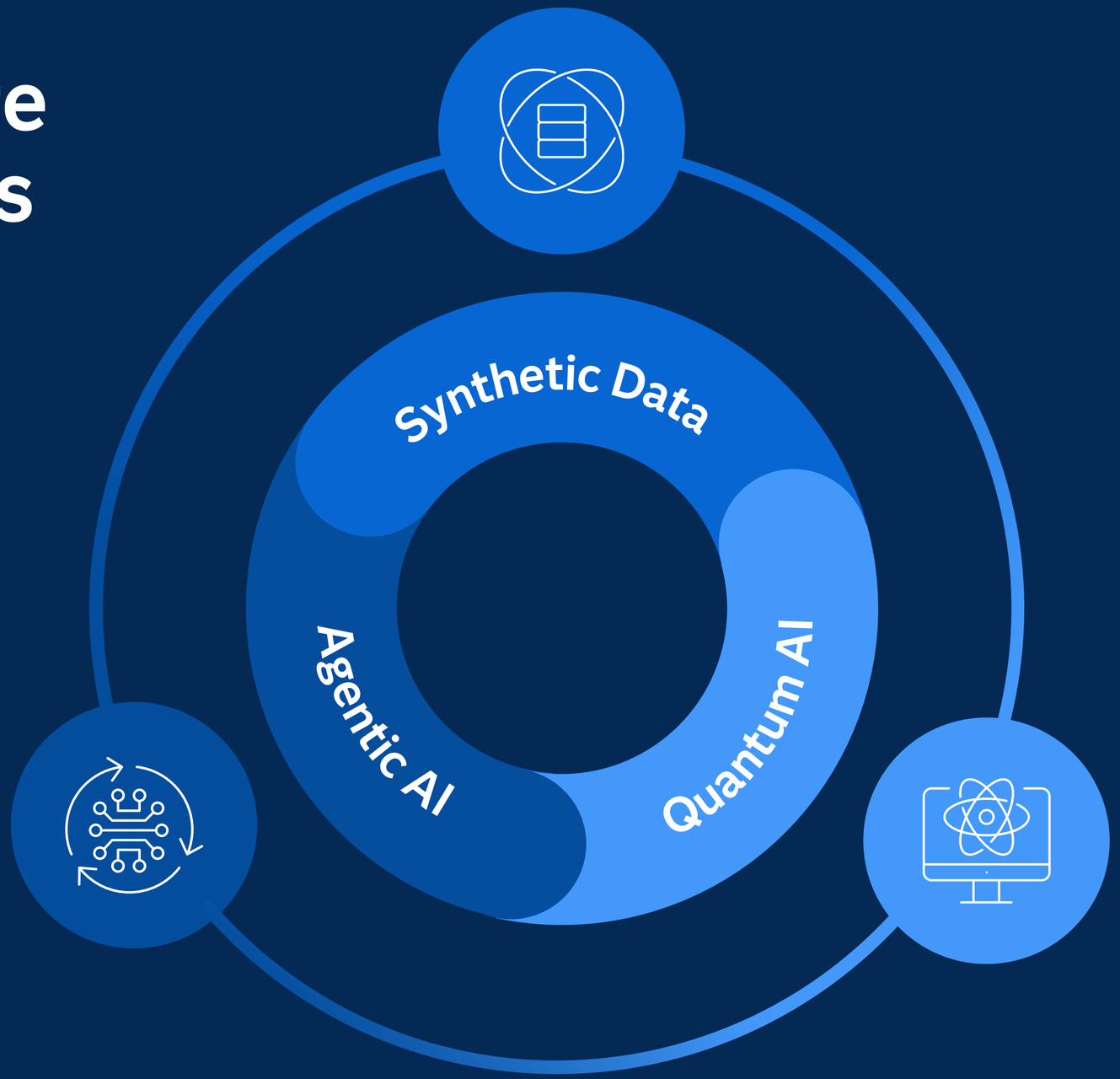
The Future Converges



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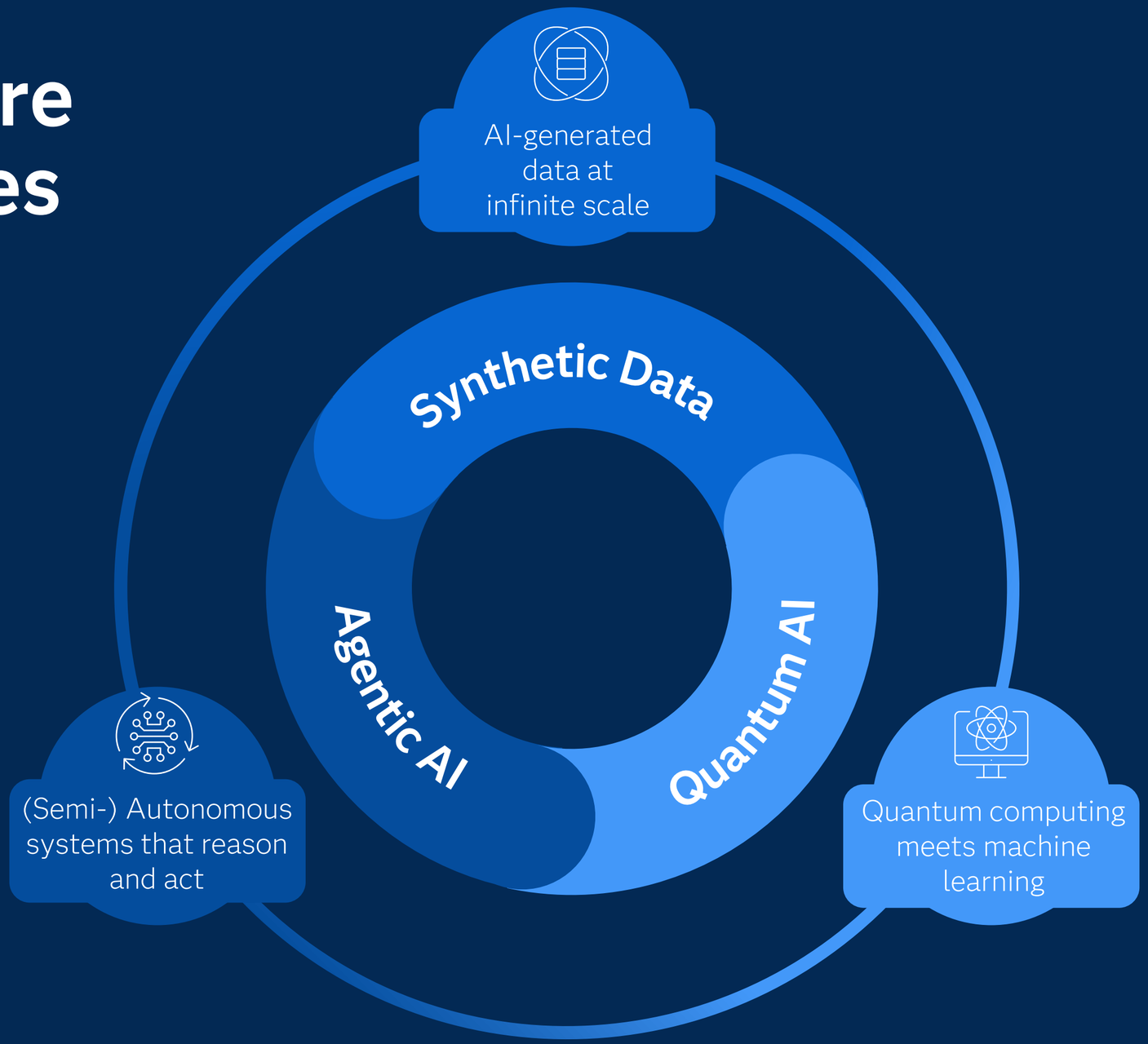

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Synthetic Data

Observed

Transformed

- Tabular
- Sequential
- Text
- Image

Generated

- Tabular
- Sequential
- Text
- Image

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SAS for Synthetic Data Generation

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In the US, a worker dies every ~90 minutes.

U.S. Bureau of Labor Statistics

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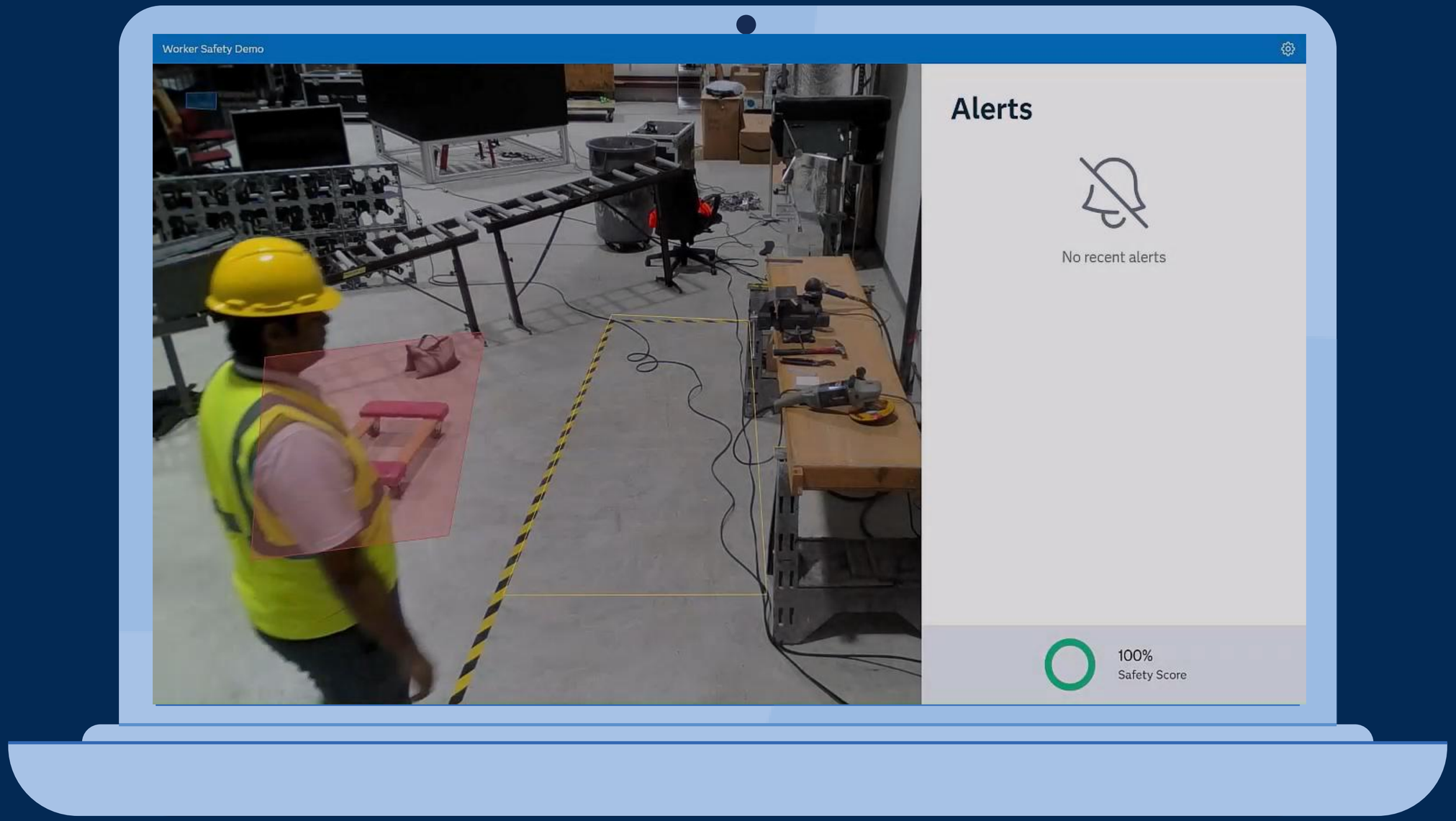
Industrial Safety Model



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Existing approach to training computer vision models for worker safety faces numerous hurdles.

- Injuries should be rare events
- Footage must be hand annotated
- Scenario analysis costly
- PII must be scrubbed; model lock

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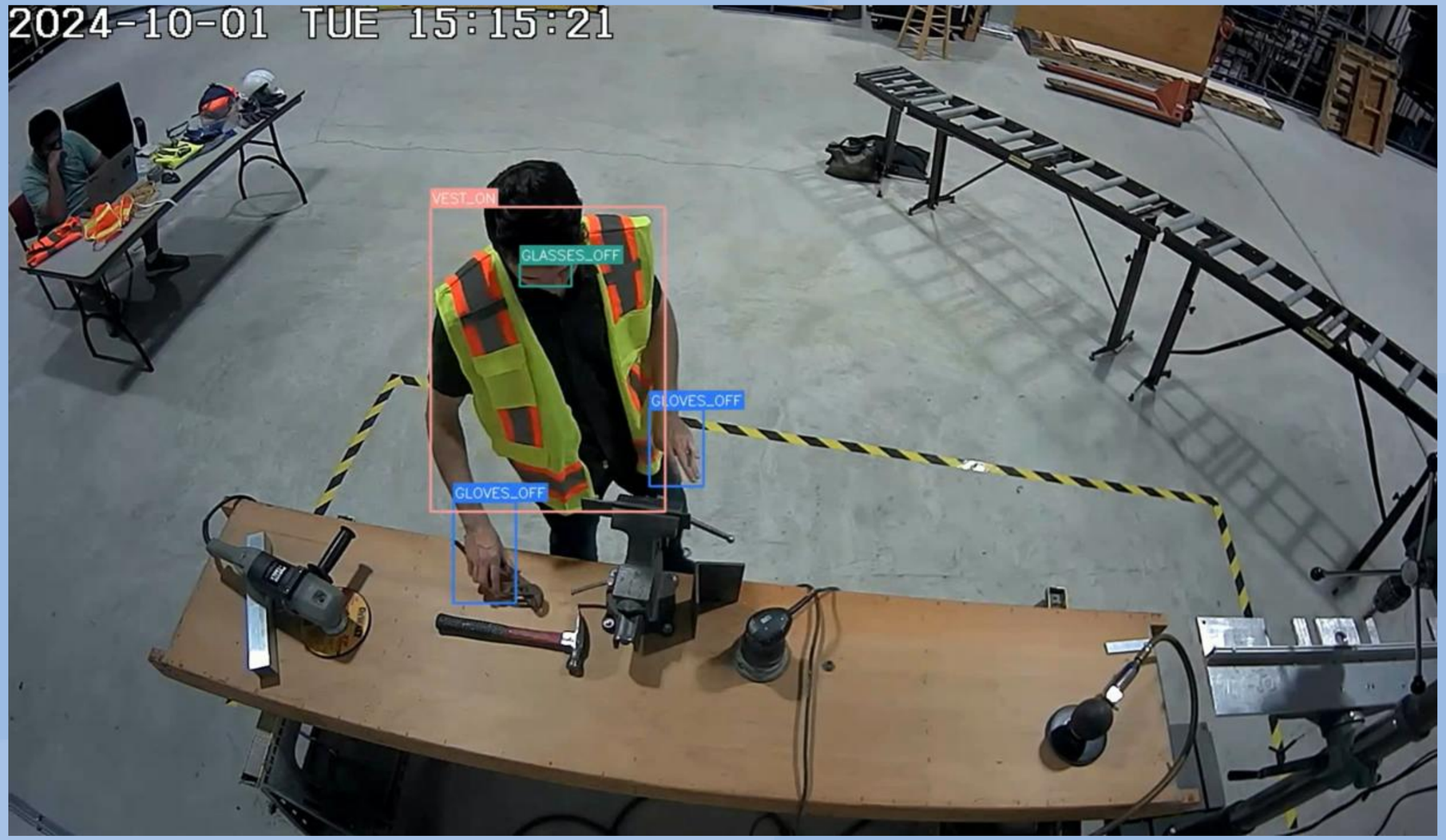

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nationwide

Synthetic Data to Improve Accuracy.

CHALLENGE

- Make personal loan decisions fairly and responsibly
- Accuracy, lack of data, and data sensitivity

SOLUTION

- Incorporating synthetic data to validate the model.
- Addresses scalability and data sensitivity

BENEFIT

- Enhanced model accuracy by 28%.

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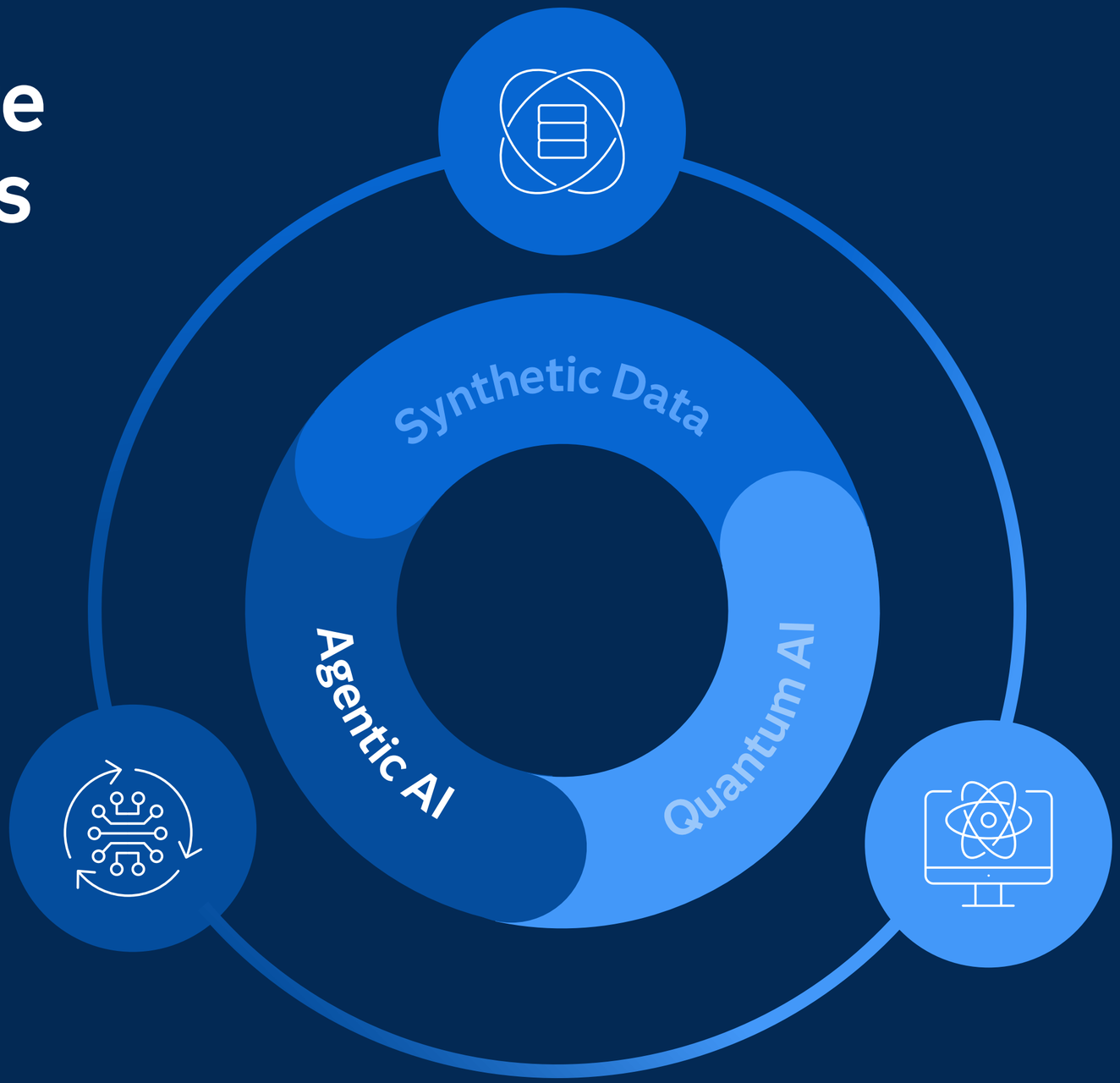
The Future Converges



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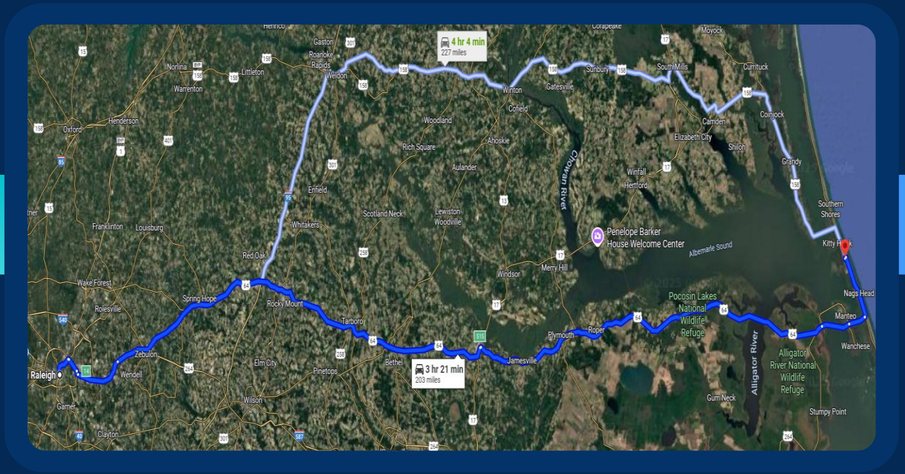
Models and Agents



MODEL
GPS

AGENT
Self-Driving Car

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SAS Vision for Enterprise AI Agents

Use AI Assistance

SAS Viya

AI assistants infused in SAS' technology to maximize user's productivity

Do It Yourself

SAS Agent Builder

Enable customers to design, deploy and govern their own AI agents

Ready-made AI

SAS Domain Agents

Delivering lightweight, industry focused intelligence across models and agents

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Fraud Rules Suggestion

Sanctions Screening

Suspicious Activity Reporting

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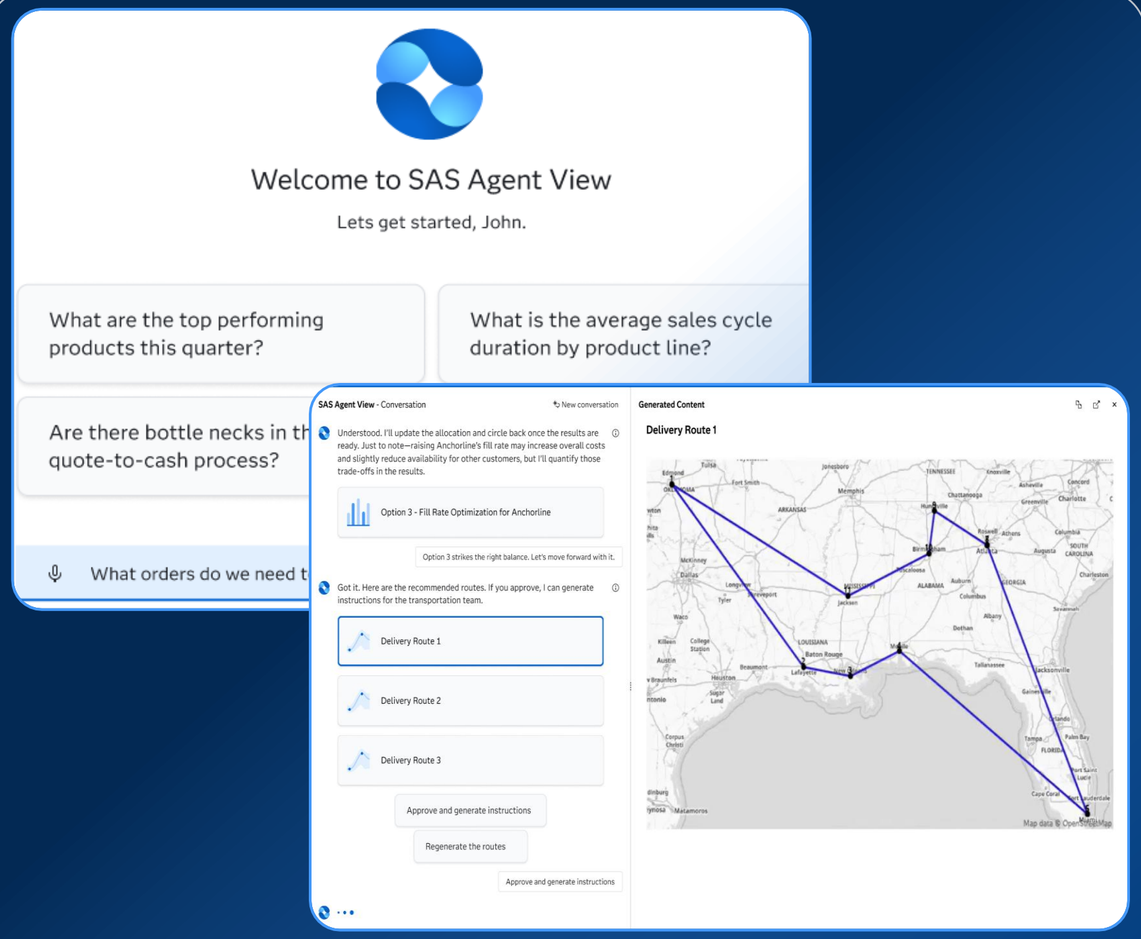
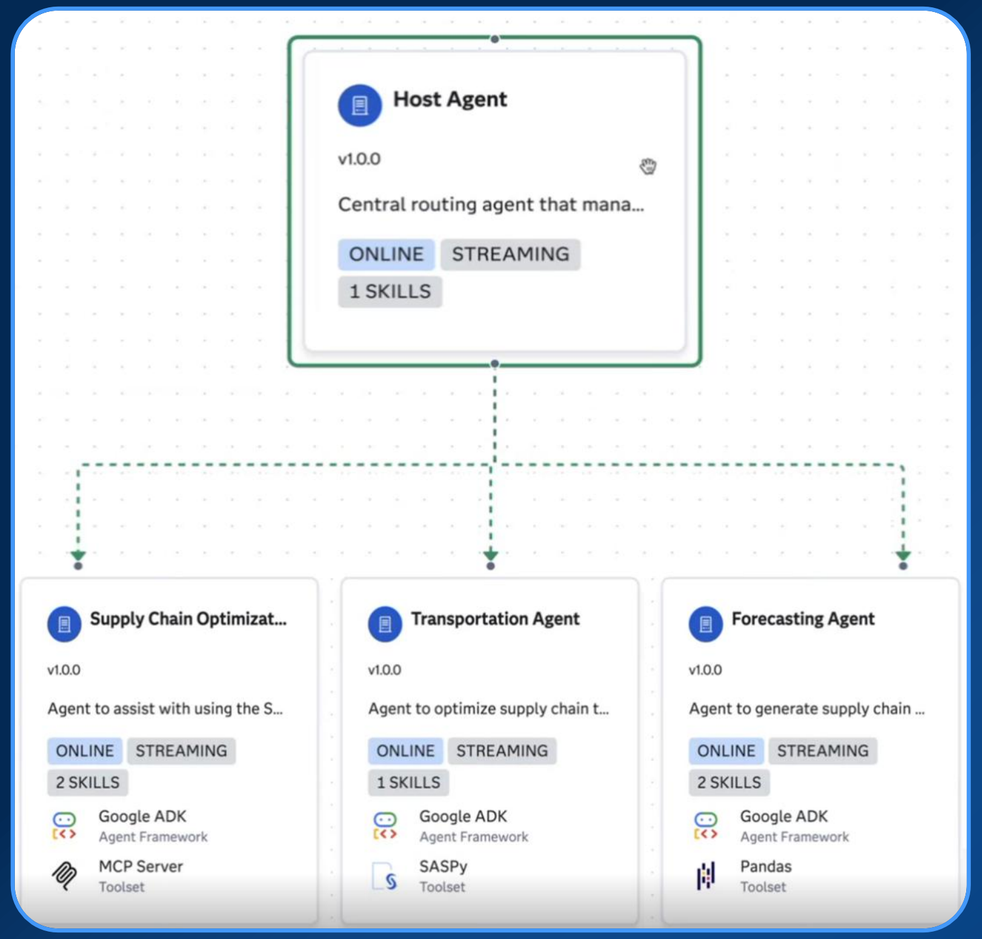
SAS Domain Agent

Sales and Operations Planning



User Experience



Agents

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Ready-Made Models & Agents

NOW

- AI-driven Entity Resolution
- Document Analysis
- Payment Integrity for Food Assistance
- Tax Compliance for Sales Tax
- Medication Adherence Risk
- Strategic Supply Chain Optimization

NEXT

- Industrial Safety Models
- Fraud Decisioning for Checks Model
- Fraud Decisioning for Cards Models
- Fraud Decisioning for Payments Models
- Tax Compliance for Individual Income Tax
- Entity Resolution for Tax & Health Care
- Biomedical Imaging Pipeline
- Payment Integrity Rules for Health Care
- Document Analysis for Medical Record Review

FUTURE

- Data Mapper Agent
- S&OP Agent
- Customer Lifetime Value
- Recommendation Engine
- Customer Journey Analytics
- Insurance Claims Cost Optimization
- Insurance Claims Prediction
- Auto Insurance Fraud
- Tax Compliance for Collections
- Anti Money Laundering Cash Models
- Optimization Solver for Debt Collection
- Payment Integrity Models for Health Care
- Readmission Probability for Health Care
- Drug Target Screening
- Clinical Trial Adaptive Design
- Hospital Capacity Management
- Property Valuation
- Route Optimization

In-development models subject to change

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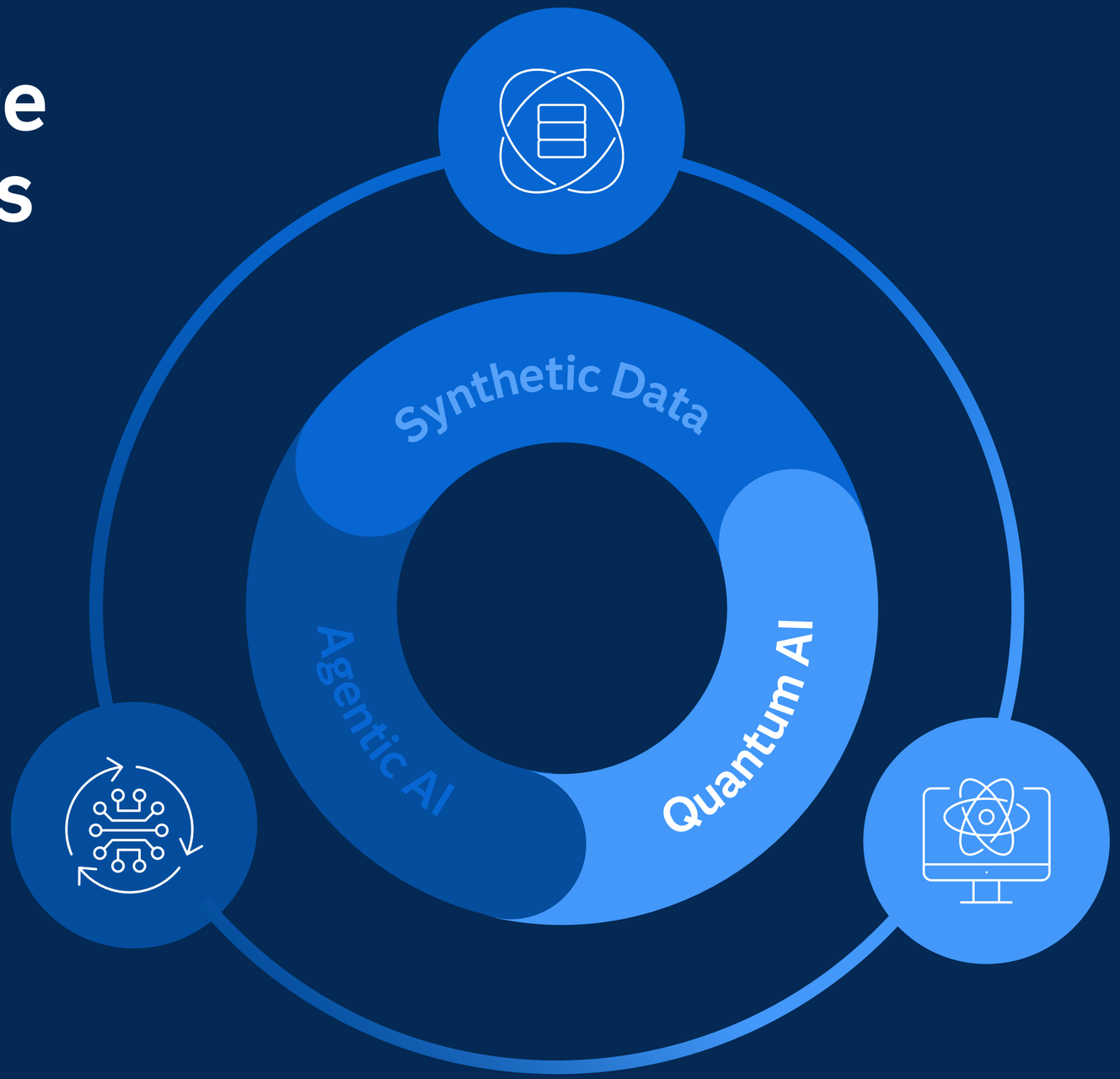
The Future Converges



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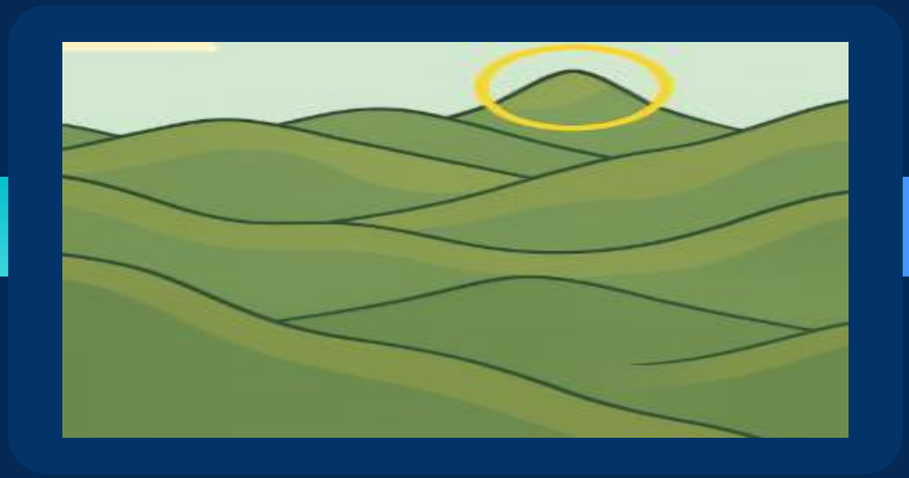
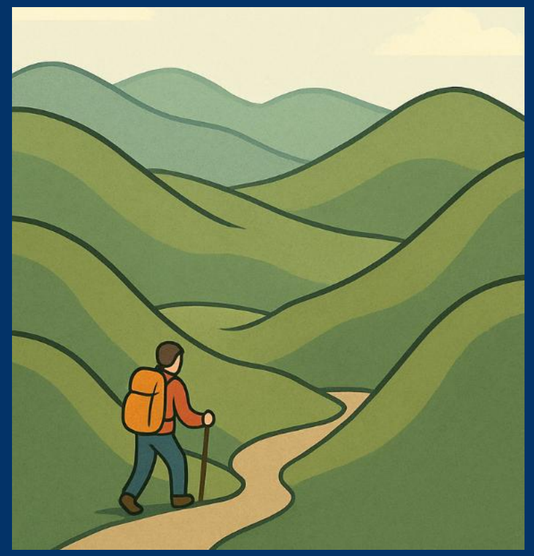
Optimization



Classical Optimization



Quantum Computing

Hybrid

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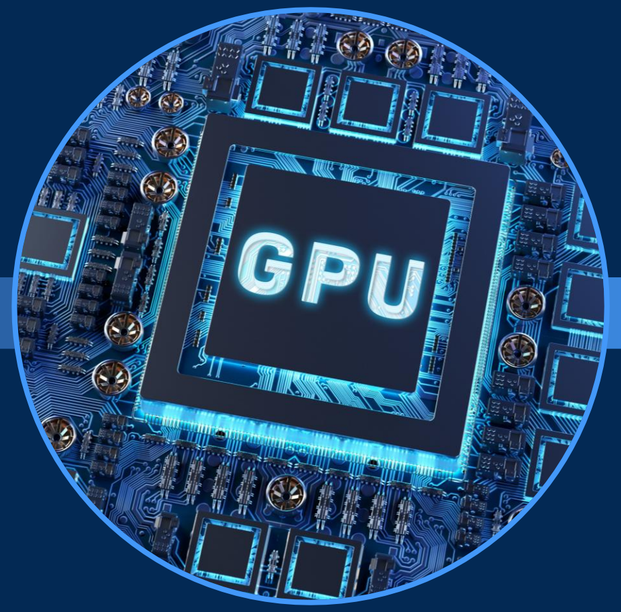
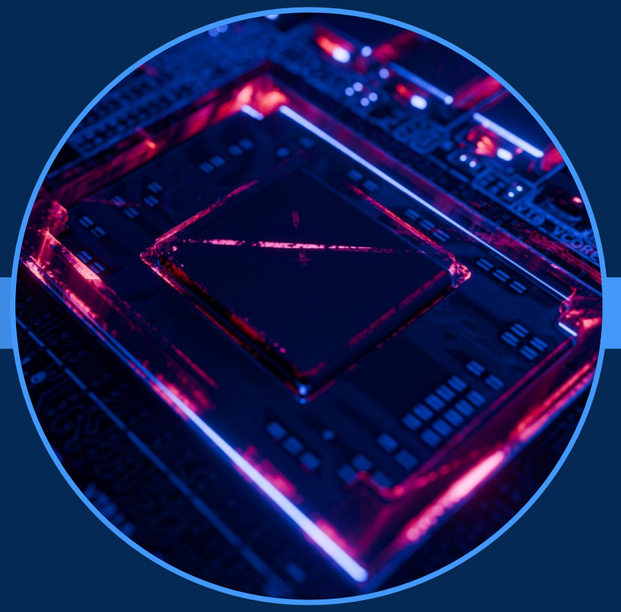
Quantum AI

CPU



GPU



Quantum Computing

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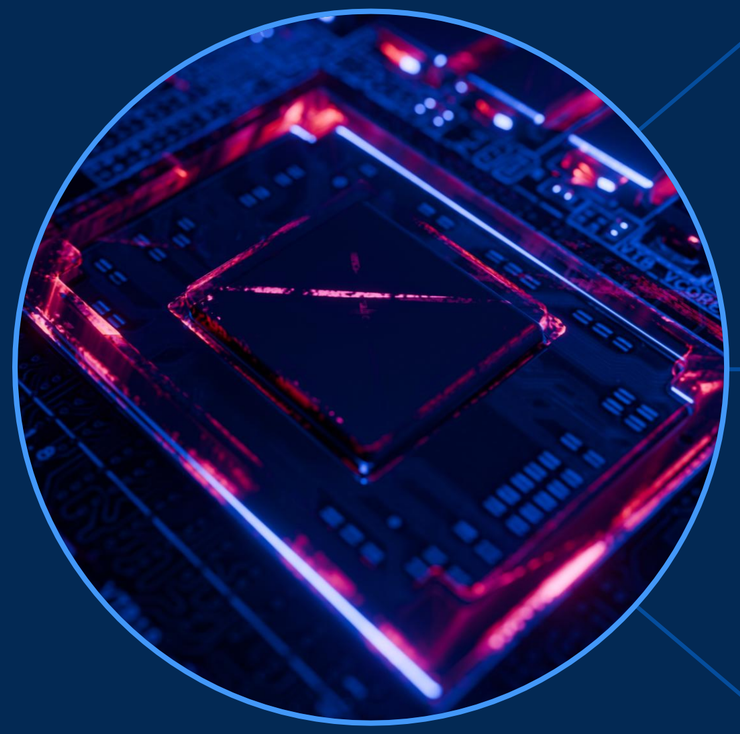
SAS Quantum AI

Enabling customers to use quantum intuitively and cost-effectively.



Research

Products

Customers

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FINANCIAL SERVICES CUSTOMER

Proof of Concept

Regulatory-Constrained Portfolio Optimization

CHALLENGE

European financial institutions are increasingly encountering liquidity constraints due to factors like

- Environmental, Social, and Governance regulations (including Basel III/IV, Sustainable Finance Disclosure Regulation, Corporate Sustainability Reporting Directive)

CURRENT APPROACH

- Leveraging high-performance computing for quadratic and mixed-integer optimization
- Employing heuristics to reduce the solution space

HYBRID QUANTUM-CLASSICAL SOLUTION

- Encoding constraints for quantum annealers
- Combine Quantum AI for solution search with classical optimization
- Goal: faster, scalable portfolio building and stress testing

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TRUST

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Trust Paradox

ROI of Trust

Ethics Imperative

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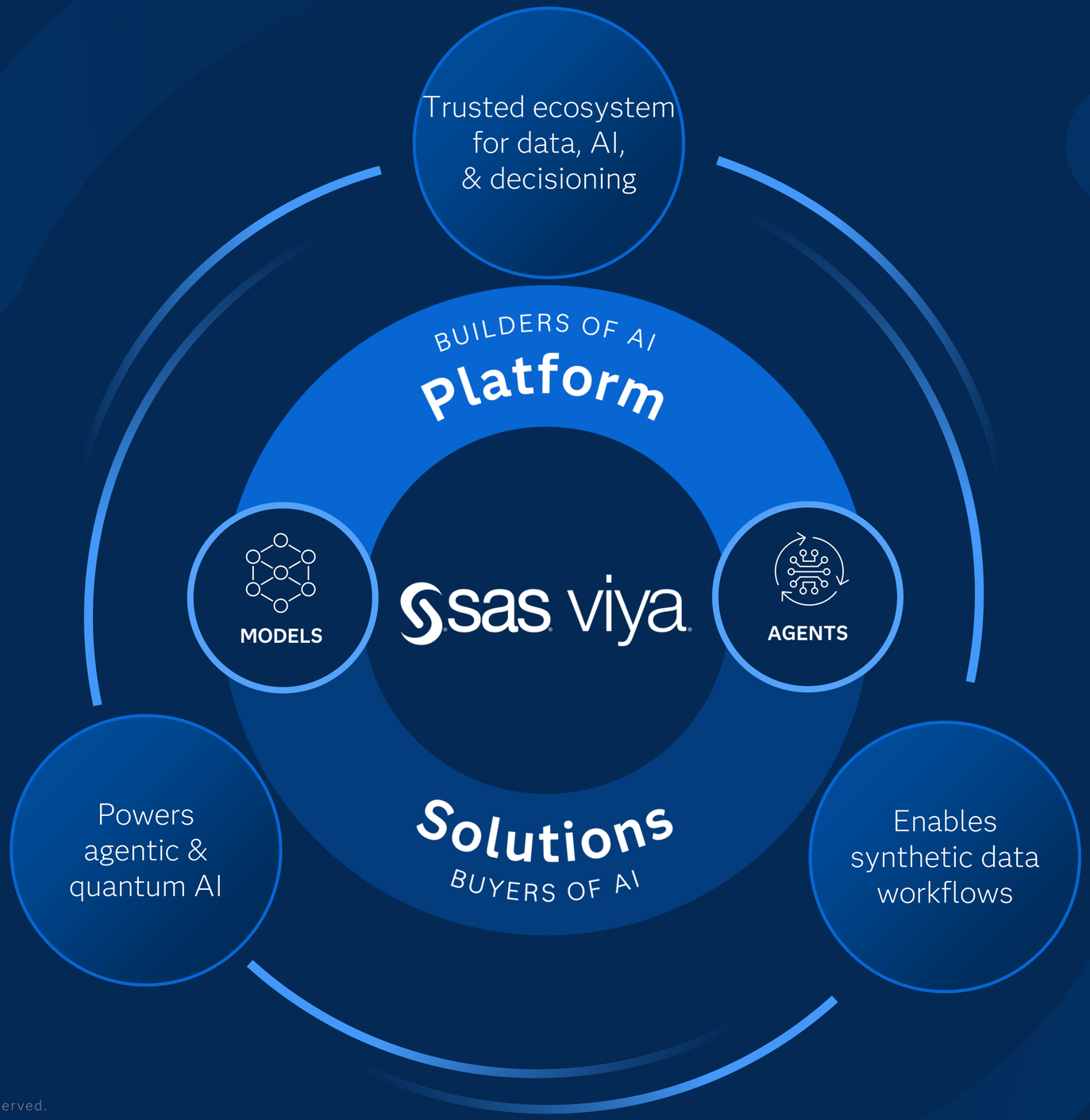

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