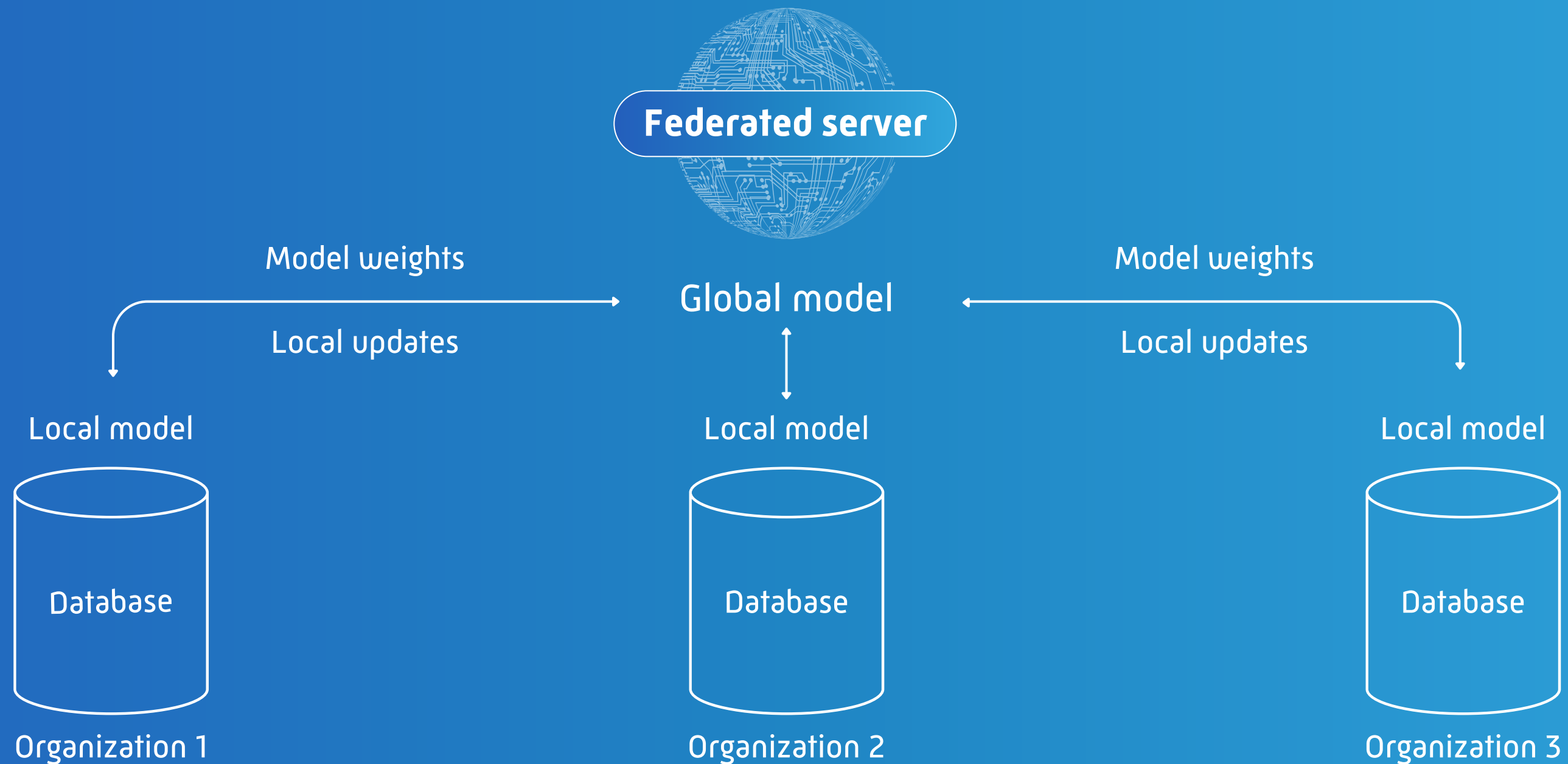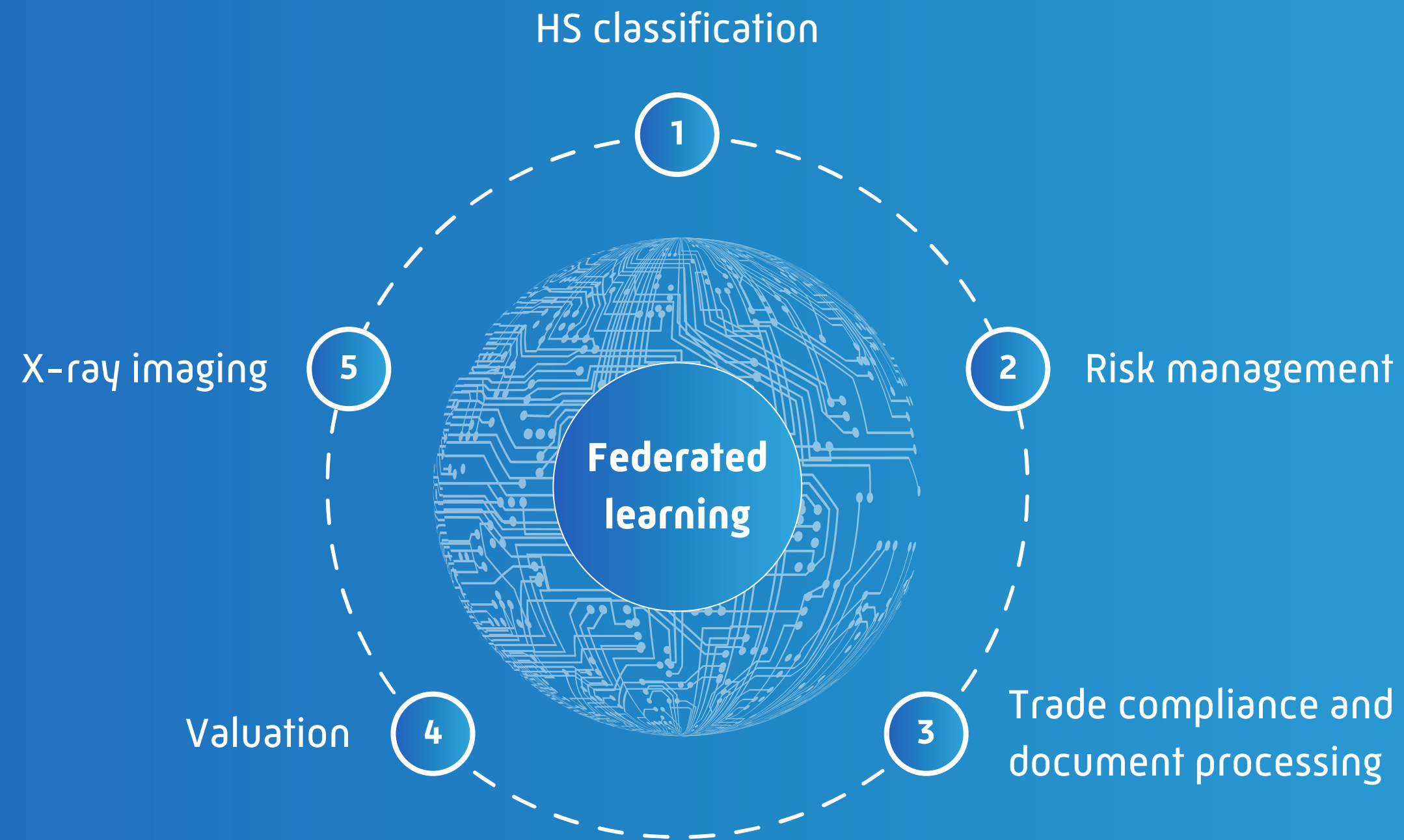# We're building something big

WCO Technology Conference
Addressing challenges in data protection:
Is Federated Learning the Solution?
October, 2023
Mr. Jad RIZK

What is Federated Learning in the context of International Trade?

Federated server

Global model

Model weights

Local updates

Model weights

Local updates

Local model

Local model

Local model

Database

Database

Database

Organization 1

Organization 2

Organization 3

Potential use cases in Customs

HS classification

1

X-ray imaging **5**

Federated learning

2 Risk management

Valuation **4**

3 Trade compliance and document processing

Key considerations

Benefits
- Enhanced privacy and collaboration
- Data diversity and resource efficiency
- Standardizing processes

Federated learning

Moving forward
- Construct collaborative frameworks and standards
- Prioritize education and training
- Champion data standardization
- Support research initiatives and pilot projects to test the waters

Challenges ahead
- Communication overhead
- Technical challenge
- Security concerns
- Scalability and maintainability

We're building something big