

GRACE HOPPER
CELEBRATION



ANITA
B.ORG

Operationalize Machine Learning for Real Impact

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AI Initiatives Seen Across All Industries



Finance

Fraud Detection
Cryptocurrencies
Algorithmic Trading



Healthcare

Cancer Cell Detection
Drug Discovery
Medical Research



Media and Entertainment

Video Captioning
Content Based Search
NI, Vr and Ar



Security and Defense

Face Recognition
Crowd Analytics
Cyber Security



Retail

Theft Detection
Auto Checkout
Targeted Marketing



Manufacturing

Reduce Product Defects
Increase Production Speed
Shorten Downtime

Machine Learning is

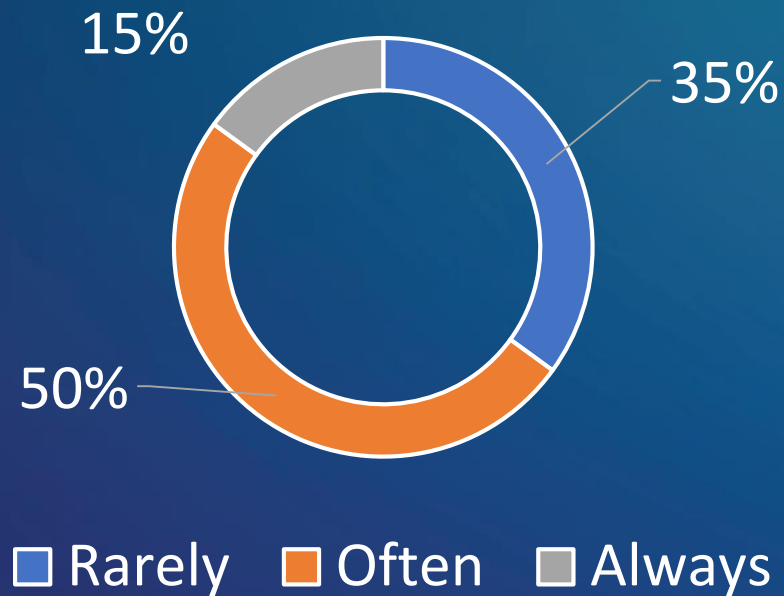
useless... and a waste of money

So said many companies who have tried.....



Low deployment

How often are trained model deployed?



Long deployment

Expected AI deployment timeline



How long it really takes

3-5X



Start planning

Still planning

Piloting

Restarting

Finally launch

75% of early AI projects will
underwhelm due to
operational oversights

Source: [forrester.com/predictions](https://www.forrester.com/predictions) (2018)

Which process(es) below is (are) the most critical component(s) of ML deployment?

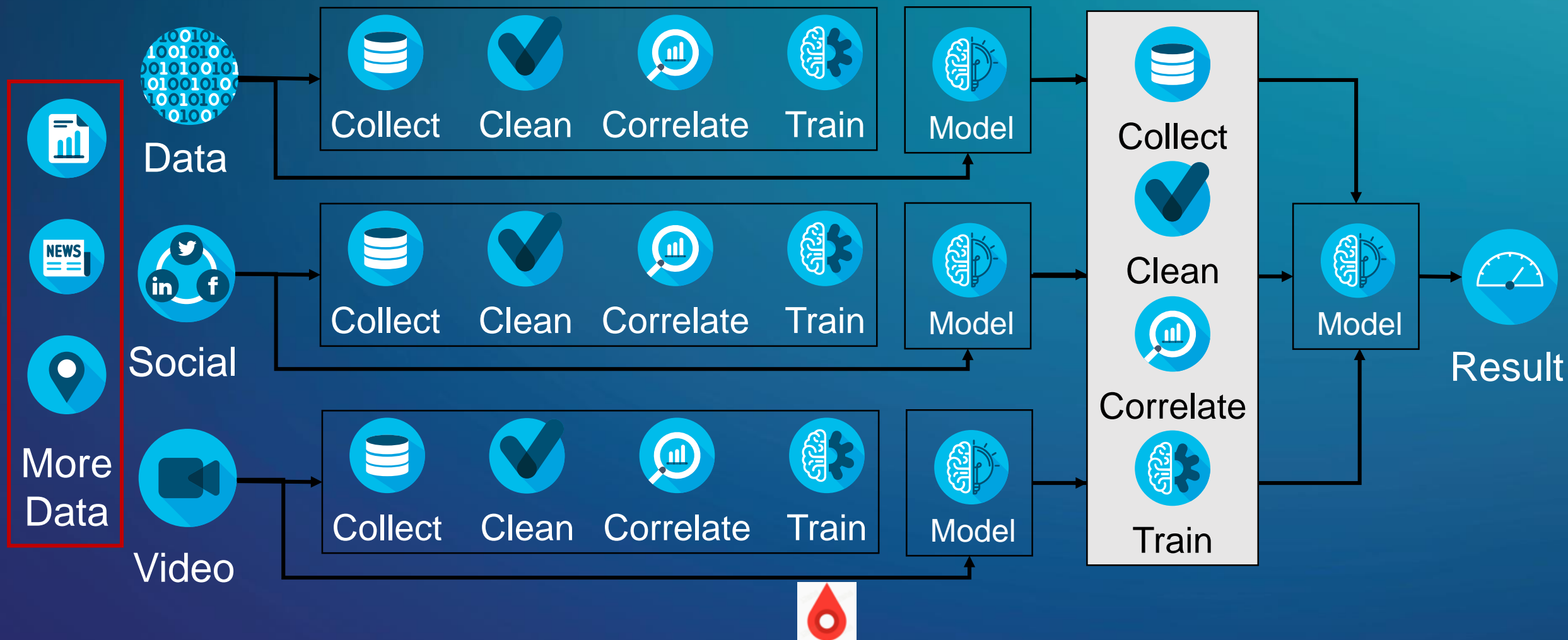
A. Data collection

B. Data preparation

C. Training and evaluation

D. Inference and deployment

Data Pipeline for Multiple Data Sources



Who are the key stakeholders to ensure a successful ML deployment at scale? (select multiple choices)

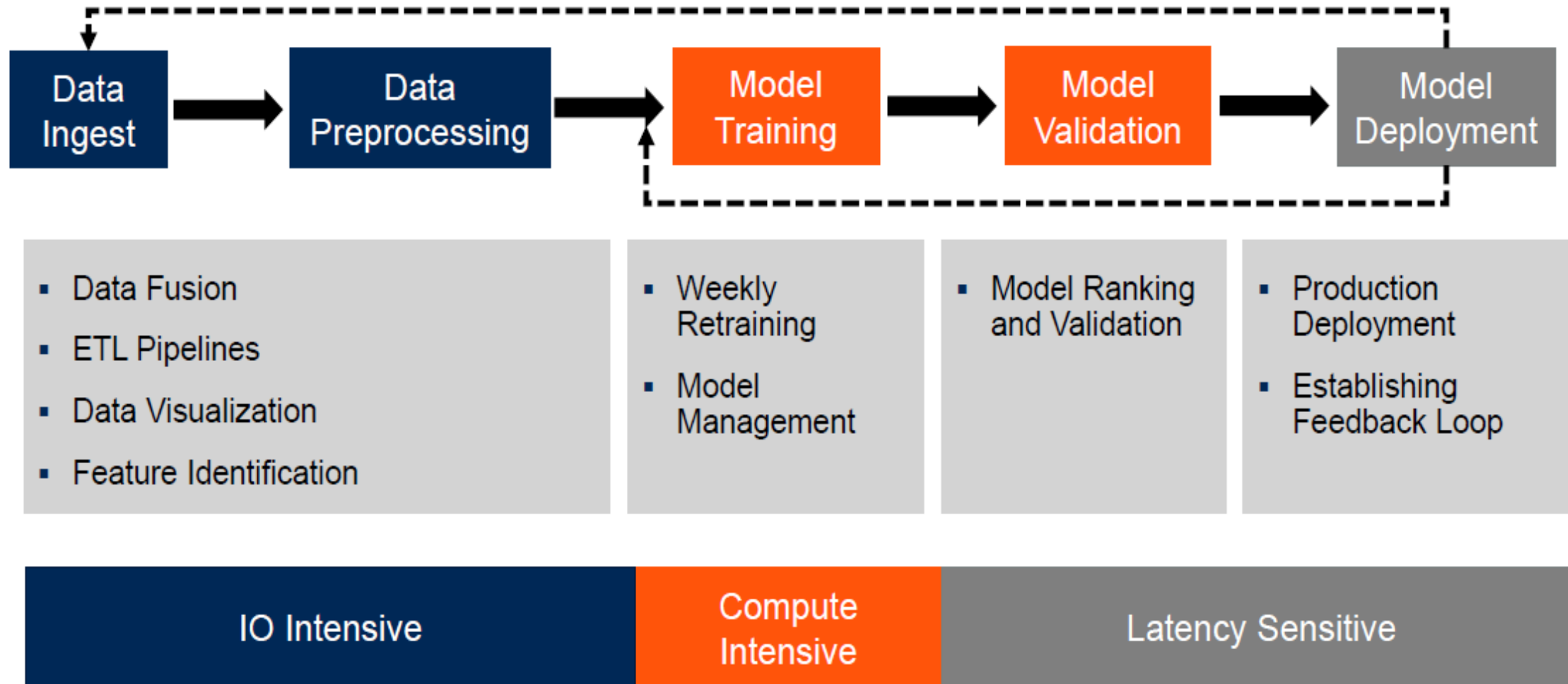
A. Data scientists

B. Data engineers

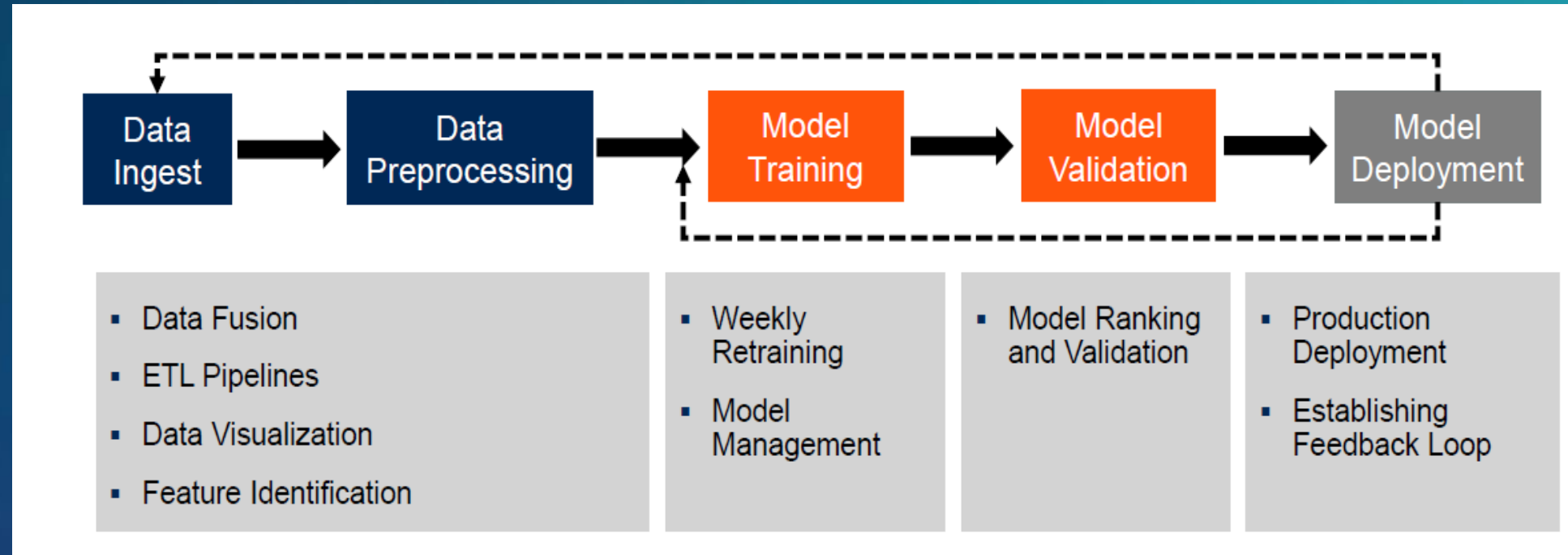
C. CXO & Line of business

D. IT

Infrastructure Implications of AI Pipelines



Framework and SW instruments need to be supported



Data Infrastructure



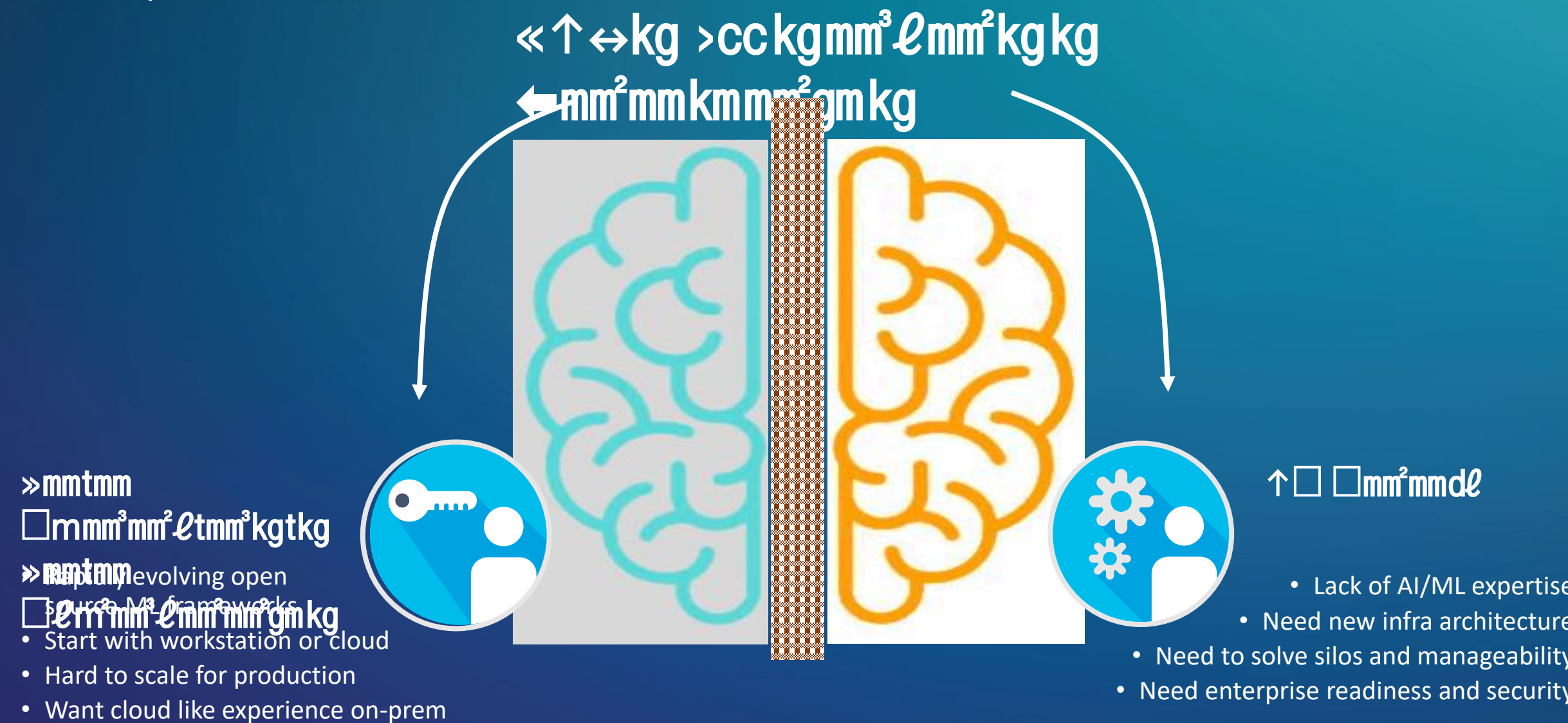
ML/DL Framework / Infrastructure



Inferencing & Ingestion End Point



Major challenge gaps exist between key stakeholders in realizing ML impact



How much percent of Machine Learning models are developed on Cloud vs. on-premise?

A. 90% vs. 10%

B. 70% vs. 30%

C. 40% vs. 60%

D. 10% vs. 90%

The benefits of both – it's a hybrid world when rubber meets the road



~60%
On-Prem

Data gravity and integration

Performance

TCO

Governance

Remodel, retraining

At scale production



~40%
Cloud



Fast deployment

Test-dev

Simplicity

APIs

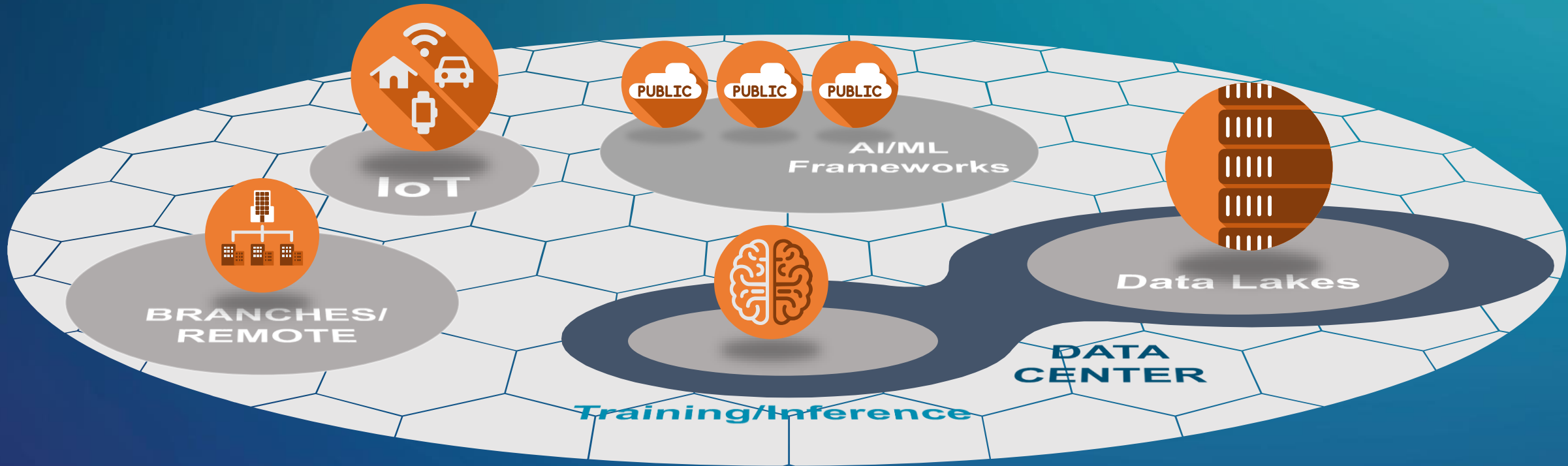
One time



Cisco AI/ML Computing Platforms & Eco-System Partners



Cisco AI/ML, A Holistic Approach



Accelerated Computing
for Inference at the Edge

ML/AI Stack Partnerships

Accelerated Computing
for ML/AI in the Core

Big Data/Analytics
and ERP



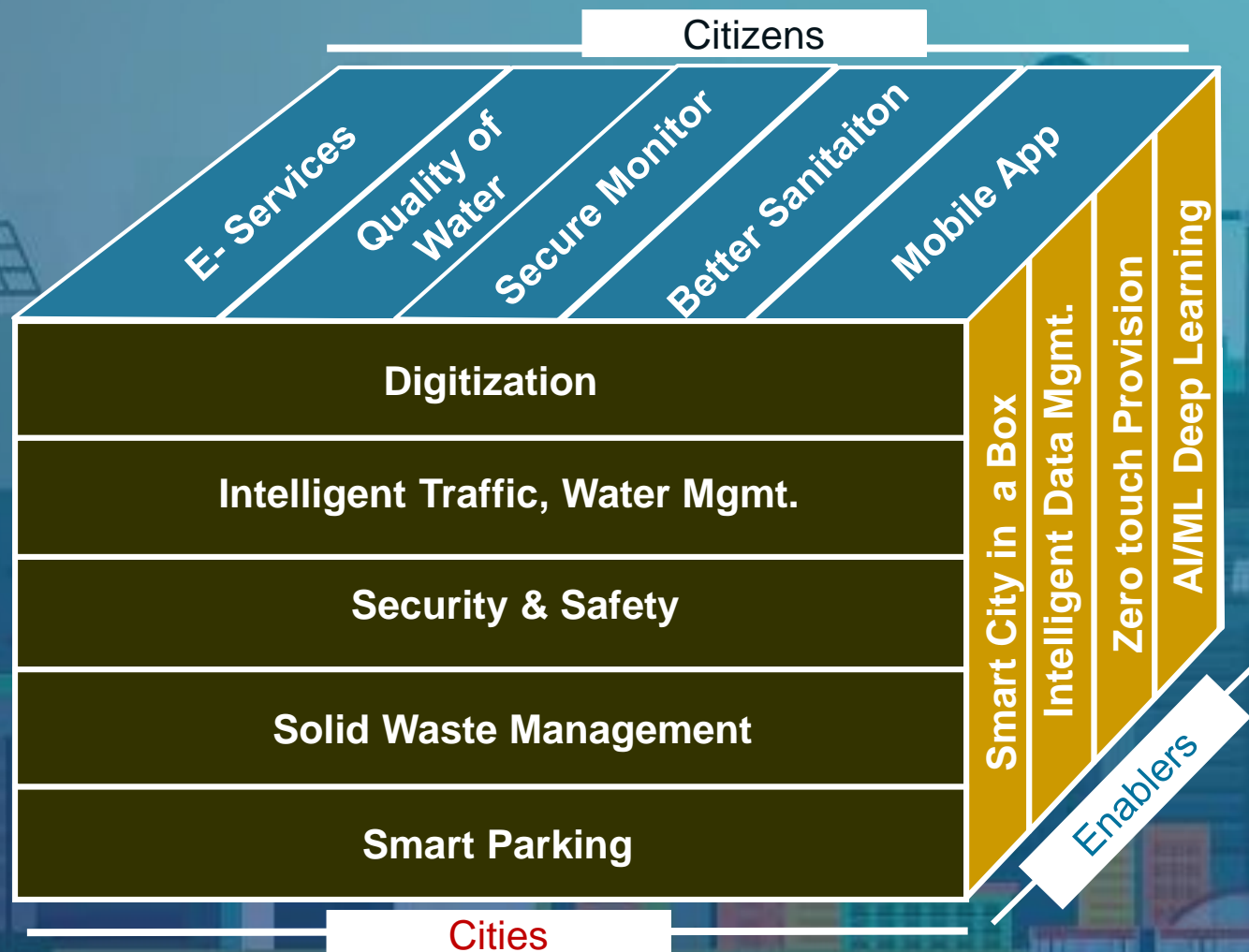
Cisco Servers (UCS and HyperFlex)
Cisco Multicloud Portfolio



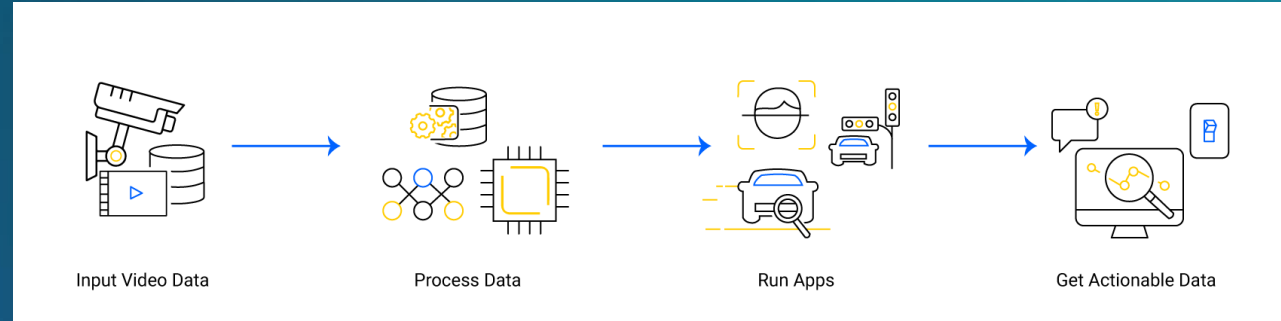
Cisco IoT
Cisco Network



Smart City Solution Customer Examples



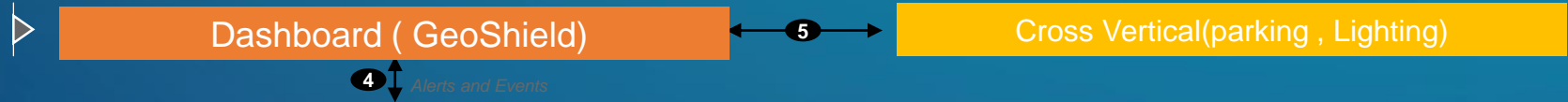
Cisco Security Architecture for Smart Cities



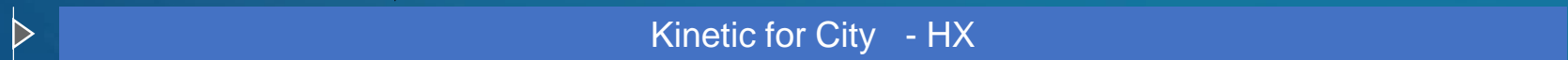
Software



Predictive Analytics



Data Aggregation and Normalization



Analytics



Sensor Management



Sensor / Camera



Thank you!

Operationalizing ML is the key to success!

Cisco has solutions and is ready to help!

Join us to make the world a better place!

Email: zdiao@cisco.com



<https://www.cisco.com/c/en/us/solutions/data-center/artificial-intelligence-machine-learning/index.html>