



AI's Role in Telecom's Evolution

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Speakers



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Agenda

- Introduction
- Top Telecom AI Use Cases
 - Overview of AI and applications in telecom
 - Network Operations and Management
 - Customer Experience Management/Service Delivery
- Q&A

Why are we talking about AI in telecoms?

- One of the key trends to be examined in a series of webinars during the next six weeks as part of the Connecting Africa Digital Series -- look out for details on Connecting Africa at <http://www.connectingafrica.com/>
- AI has become one of the key talking points in telecoms in the past few years as network operators/service providers seek to both automate their processes and make better use of the large volumes of data they have at their disposal.
- It has the potential to revolutionize operations but there is much hype and disinformation in the market.
- A major topic at the upcoming AfricaCom/AfricaTech event in Cape Town

AI Summit at AfricaCom/AfricaTech

- With disruptive enterprise technologies such as IoT, blockchain and AI now being implemented, a new event is being launched as part of this year's AfricaCom called AfricaTech, comprising a range of conference tracks, deep-dive industry and technology sessions and more, as well as a significant exhibition area.
- The AI Summit Cape Town (12-14 Nov.) will be part of AfricaTech, focused on the use of AI across multiple industry verticals.



AI Summit at AfricaCom/AfricaTech

With AI's business value in Africa growing year by year, it is becoming increasingly necessary to understand how this growth is being translated into real-world commercial solutions for the enterprise. The AI Summit will bring together technology leaders and end-user pioneers to look at how AI is addressing the most urgent challenges on the continent, from developing tech skill sets and expanding entrepreneurial prospects to keeping up with Western competitors.

Across three days of exploratory content, discover more about:

- Conversational AI in customer service
- Actionable insights with automation in finance
- AI from Africa in the global arena
- Building the bridge between AI and policy
- Integrating AI in business strategy
- Making your data work for you



For more see <https://tmt.knect365.com/africacom/ai-summit-cape-town>

AI for telecom use cases in Africa

- The primary drivers for AI in telecom -- cost savings from replacing or enhancing human workers and the rollout of 5G networks - are not immediate needs for CSPs in Africa.
- Barriers, such as the lack of reliable, consistent power and limited per-capita income are present in Africa.
- Due to such factors, and less intense pressure from the market drivers, the rollout and spending on AI-driven solutions in Africa will lag behind other regions.
- Nevertheless, Tractica estimates that spending on AI-driven software for telecom use cases in Africa will grow from \$4.4 million in 2018 to more than \$265 million in 2025.



Top Telecom AI Use Cases

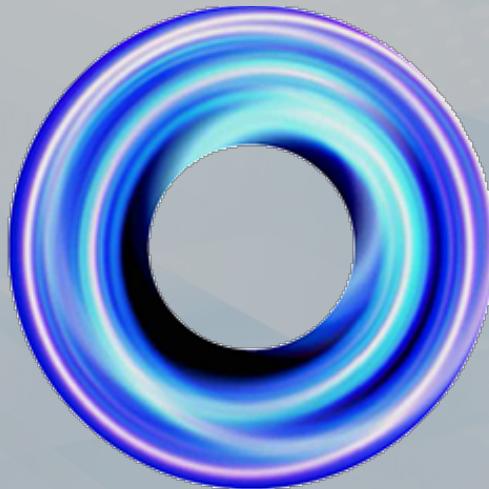
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MARK BECCUE
Principal Analyst

INTRODUCTION

Tractica, an Informa business, is a market intelligence firm that focuses on emerging technologies.

The firm's market research and consulting services provide industry participants and stakeholders with in-depth analysis of emerging technology trends, use cases, business issues, market drivers, and end-user demand dynamics across multiple application domains.



SECTOR FOCUS



Artificial Intelligence



Robotics



User Interface Technologies



Advanced Computing



Connected & Autonomous Vehicles



Wearables & Digital Health

AI is a Loose Umbrella Term for Technologies Inspired by Biological Systems

Technologies

Machine Learning

Deep Learning

Natural Language Processing (NLP)

Computer Vision

Machine Reasoning

Strong AI

New AI Invented Constantly

Definitions

Set of algorithms that can learn from data and make predictions about similar data sets

Form of machine learning that uses neural networks

Technologies that allow computers to understand, translate, produce human speech and writing

Technologies that allow computers to identify, tag and understand images and raw pixel data

Simulate human thought process by using a computer model of language and relationships e.g. expert systems

Also referred to as AGI where computers can gain a general understanding of the world and the logic that drives it

Key Takeaway



Many categories overlap

Successful Technologies Are No Longer Considered AI

Telecom AI Use Cases

Network Operations and Management

Customer Service Virtual Digital Assistants

Intelligent CRM Systems

CEM/Service Delivery

Fraud Mitigation

Cybersecurity

Predictive Maintenance

Video Compression



Network Operations & Management

Use Case: Network Operations and Management

Focus: Automate network functionality from core to the edge

- Near-term: Predictive functionality at global level: optimization, load balancing, root cause analysis, planning & design
- Long-term: Network slicing, IoT automation, The Autonomous Network (Self-configure, self-monitor, self-heal)



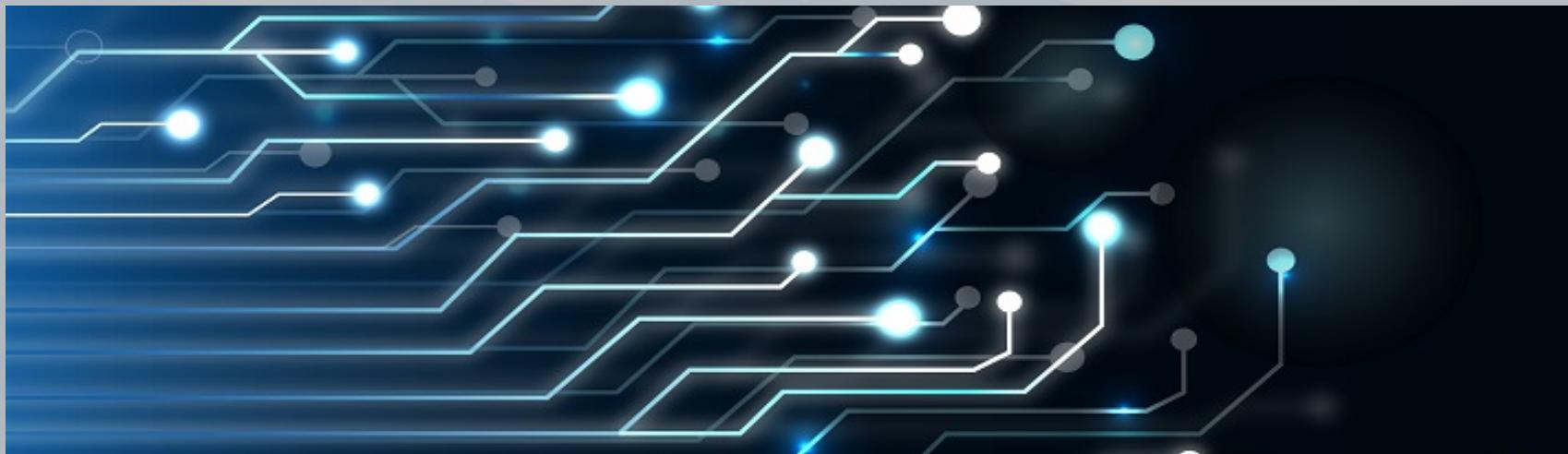
Market Drivers: Network Operations and Management

- Margin pressure
- Digital transformation/web speed and scale
- Tomorrow: Complexity of service offerings
 - 5G/IoT

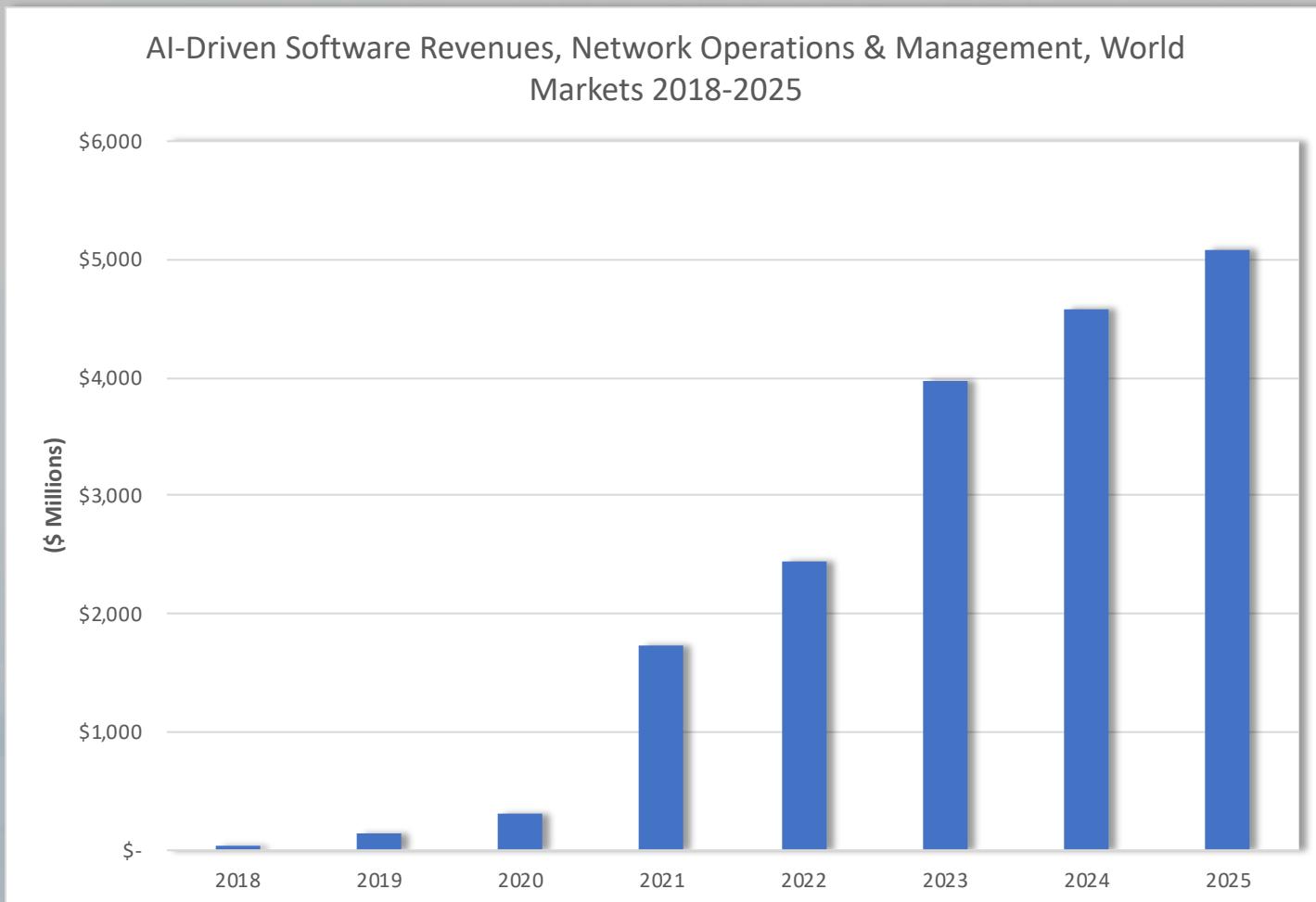


Market Barriers: Network Operations and Management

- Slow rollout of SDN, NFV
- Challenging abstraction layers for telecom data
- The CTO conundrum – Centralized AI?



Market Forecast: Network Operations and Management



(Source: Tractica)

Outlook and Key Conclusions: Network Operations and Management

- \$5 billion in 2025
 - Largest AI use case in Tractica's forecast model
- There will be a jump in 2021 with SDN deployments
- Economic sense: developed markets with high wages, 5G





Customer Experience Management/ Service Delivery

Use Case: Customer Experience Management/Service Delivery

- Focus: automate the quality of service
 - Self help leveraging network visibility; automated service repair/restore; automated offline & real-time QoS solutions
 - Predictive: 360 customer care, traffic prioritization, field engineering; service assurance for VoLTE, video; hardware repair, churn management
 - Mixes systems: network, BSS/OSS/CRM, social, CS
 - Mixes uses: CX, predictive maintenance, network automation



Market Drivers and Barriers: CEM/Service Delivery

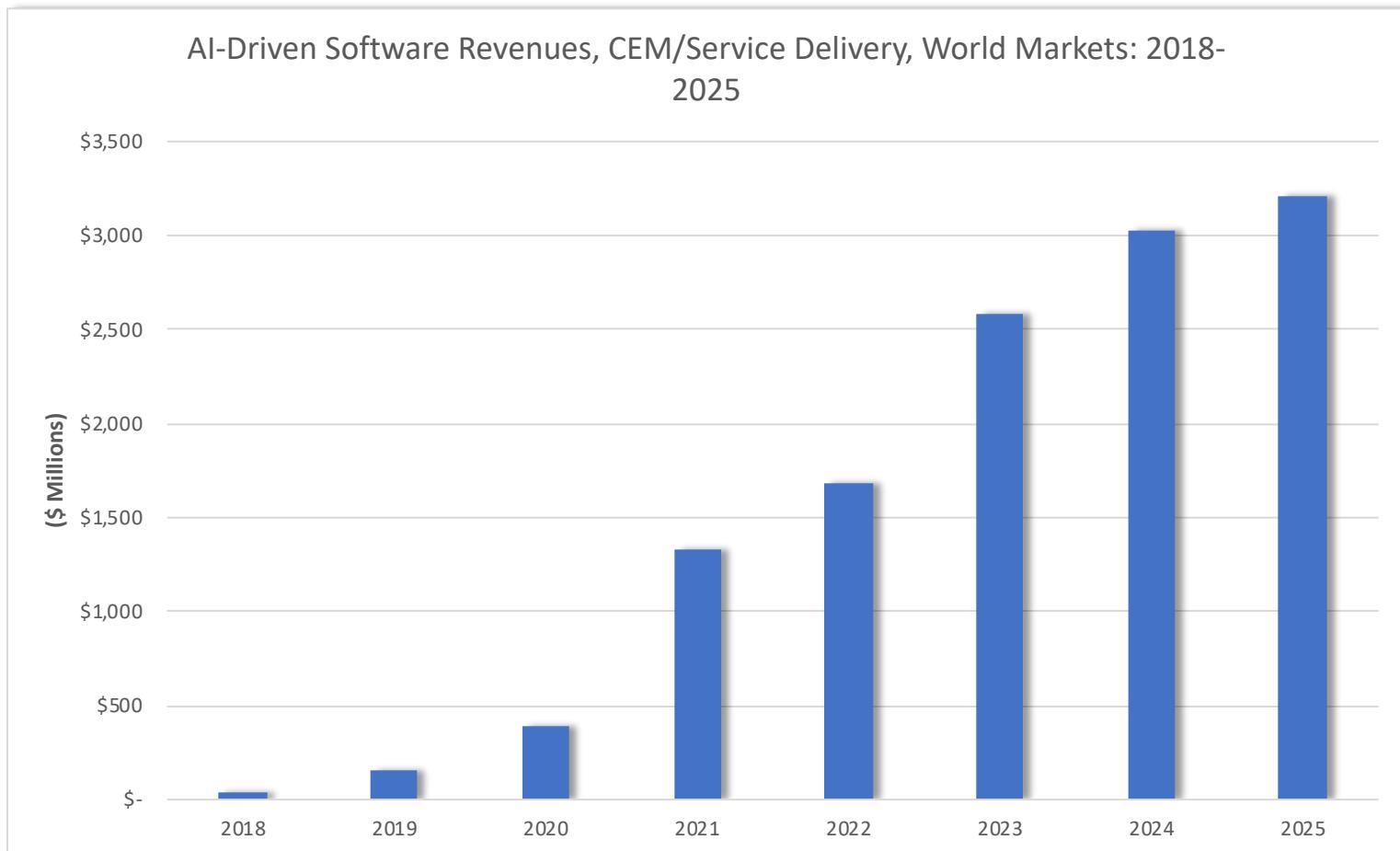
■ Drivers:

- Cost of acquisition vs retention
- Reduce maintenance, service costs
- Increase customer satisfaction, loyalty

■ Barriers:

- Access to consistent, gap-free telemetry data
- Lack of devices instrumented to provide data
- Proven ROI (around CEM)

Market Forecast: CEM/Service Delivery



(Source: Tractica)

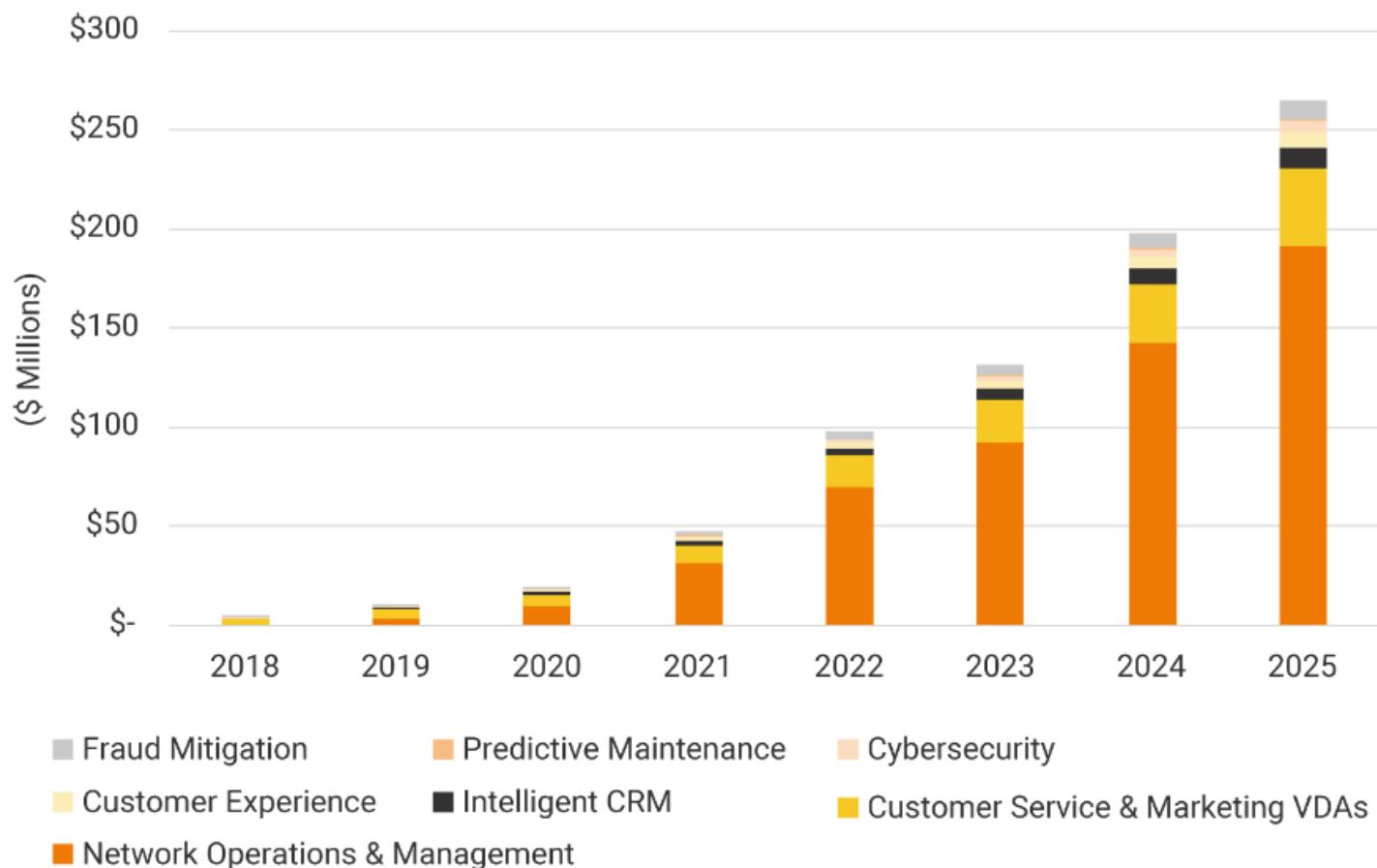
Outlook and Key Conclusions: CEM/Service Delivery

- Grows to \$3.2 billion in 2025
- Interdependence on network automation, other systems
- Near and long-term traction
- Globally appealing (not 5G-dependent)



AI for
telecom use
cases in
Africa

Telecom AI Software Revenue by Use Case, Africa: 2018-2025



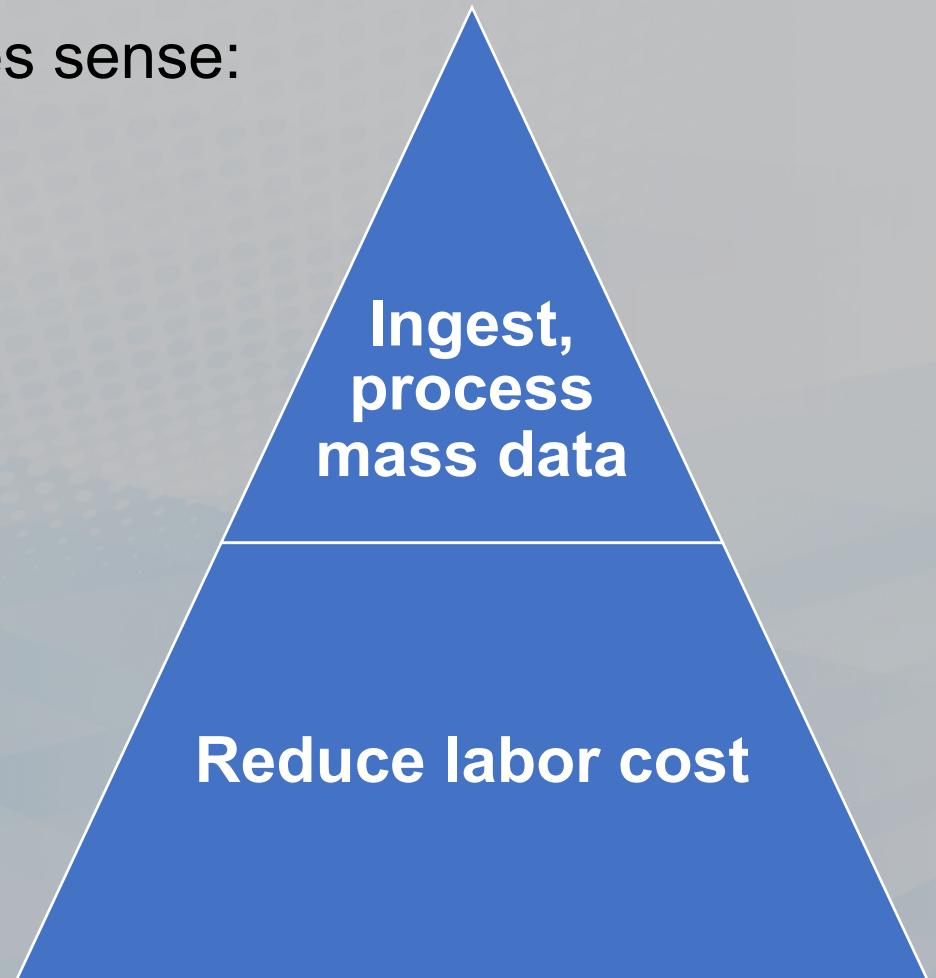
Source:
Tractica



Summary and Recommendations

Conclusions

When AI makes sense:



Conclusions

- Robust Growth...
 - Telecom AI spend to grow to \$11.1 billion annually by 2025
- Yet it is still only 10-15% of telco spend in 2025
- Waiting for SDN
- AI resonates in high-wage markets or when there is access to massive data sets
- AI in telecom is best focused on analysis and prediction



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Q&A



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Find out more about the topics covered today at AfricaCom, the continent's largest and most influential tech and telecoms event, at: <https://tmt.knect365.com/africacom/>

