Cognizant Speaker Sessions for GWF – Sivakumar

Business & Intelligence, Session 1

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intuition engineered

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Program Director – Agentic AI Leader at Cognizant

Global Scale Program Delivery, Digital Transformation, and Excellence

Siva, an expert in Geospatial Operations and Field/Location Services, currently serves as the Geospatial Ops Delivery & Business Intelligence Lead at Cognizant. With 2 decades of experience in leading Delivery, Process Excellence, Consulting, BI & Analytics, AI Engineers, Data Science, and more, Siva manages diverse teams across 50+ countries. Based in London, UK, he has previously worked in Brazil & India, bringing rich delivery expertise in complex markets & strong engagement with leading tech clients.

GEOSPATIAL WORLD FORUM 2026 · OPENING SESSION

Turning Geo-Insights into Strategic Business Advantage

Harnessing Earth Observation, GIS & AI to unlock competitive intelligence and navigate the future of digital sovereignty

April 2026

The Strategic Imperative - Role Of Geospatial & Satellite Data Indecision-making

$400B+
Global Geospatial Market by 2030

85%
of enterprise decisions have a location component

40%
faster insight with satellite analytics

Real-Time Intelligence

Satellite imagery & EO data deliver live ground truth — from supply chain disruptions and crop stress to urban expansion and competitor activity.

Ex: Satellite imagery of car park density at major retailers (Walmart, Target) is used by hedge funds to predict quarterly earnings before official results

Result: *Orbital Insight generated measurable trading edge to rewrite the rules of market intelligence (3-5% higher returns to investors)*

Risk & Resilience

Location analytics enable proactive risk mapping: climate exposure, infrastructure vulnerability, geopolitical flashpoints & natural disaster prediction.

Ex: *Reinsurers, uses satellite-derived flood plain mapping combined with GIS infrastructure layers to reprice property insurance risk in real time*

Result: *MunichRe identified 40% of damaged properties were outside FEMA flood zones meaning conventional risk models failed*

Competitive Edge

Fortune 500 leaders use geo-intelligence to optimize logistics routes, site selection, market expansion, and customer segmentation at unprecedented scale.

Ex: *UPS deployed largest geo-intelligence solution combining Real-time GPS, Road networks, Weather feeds & AI routing to optimize 55,000+ drivers daily*

Result: *Saves UPS approximately 100 million miles and $400 million annually*

From Data To Decisions

Integrating EO · GIS · AI for Actionable Intelligence

Earth Observation

Multispectral, SAR & hyperspectral satellite data capturing physical world at scale

GIS & Spatial Analytics

Geospatial indexing, vector/raster fusion, and contextual enrichment of EO signals

AI / ML Engine

Change detection, anomaly detection, predictive modelling, and NLP-driven geo-narrative

Strategic Insights

Dashboards, scenario planning tools, and real-time alerts for executive decision-making

Industry Use Cases

Agriculture

Precision crop monitoring, yield prediction, drought early warning

Insurance

Real-time catastrophe assessment, risk scoring from satellite change detection

Retail & Logistics

Footfall analytics, last-mile route optimization, competitor site benchmarking

Financial Services

Alternative data for macro trends, supply chain stress indicators, ESG monitoring

Urban Planning

Smart city digital twins, infrastructure planning, climate resilience mapping

"Satellites See it → GIS Contextualizes it → *AI Thinks* → *Leaders Decide."*

Future Trends

Geo-Enabled Business Intelligence: What's Next

1 Sovereign AI & Federated Geo-Data

Nations are mandating data localization. Federated learning and edge AI will enable cross-border analytics without centralizing raw satellite feeds.

Ex 1: India - AI models are trained locally on Indian satellite data & only aggregated intelligence
Ex 2: China - All AI processing of Chinese territorial imagery is mandated to occur within domestic infra

2 Foundation Models for Earth Observation

Geospatial foundation models (IBM NASA Prithvi, Google EarthPT) will democratize land-use classification, disaster response, and carbon monitoring.

Ex 1: Rwanda & Ghana deployed Phi-lab derived models to monitor illegal artisanal mining & track seasonal crop health
Ex 2: Brazilian govt piloted EarthPT-derived land classification to detect illegal deforestation @ Amazon in near real-time

3 Real-Time Planet-Scale Monitoring

Proliferating LEO constellations + 5G edge processing will deliver sub-hourly refresh rates, enabling live operational intelligence across industries.

Ex: **Lloyd's of London syndicates** use Spire's real-time vessel intelligence to dynamically price marine cargo insurance mid-voyage

4 Digital Twins of the Physical World

The convergence of real-time EO data, IoT sensor networks, and AI is giving birth to **planetary-scale digital twins** — dynamic refresh & virtual replicas of physical world

Ex: **Nvidia Omniverse Earth-2** simulates regional weather and climate futures at 25km resolution, helping energy companies, insurers & governments forecast 2050 climate

“The Next Competitive Frontier Isn't In the Boardroom — It's 400 Miles Above It”

Thank you