

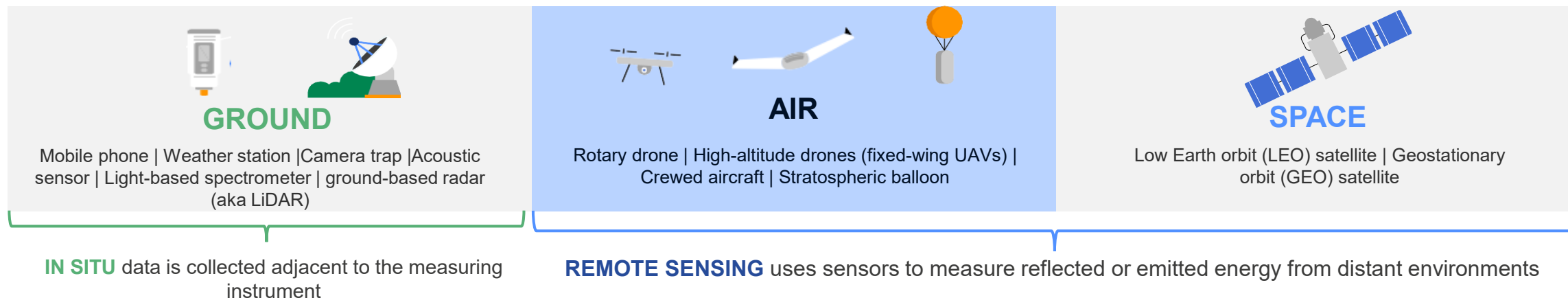
The Economics of Earth Observation

Unlocking the \$700B Opportunity

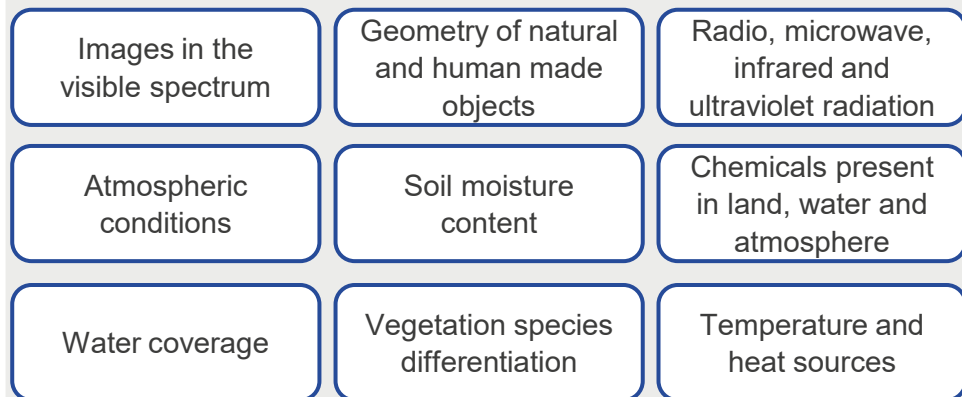
29 September 2026

Valentin Golovtchenko | Lead, Planetary Solutions Strategy | World Economic Forum

From observation to economic intelligence



EO Measurements:



Industry Application

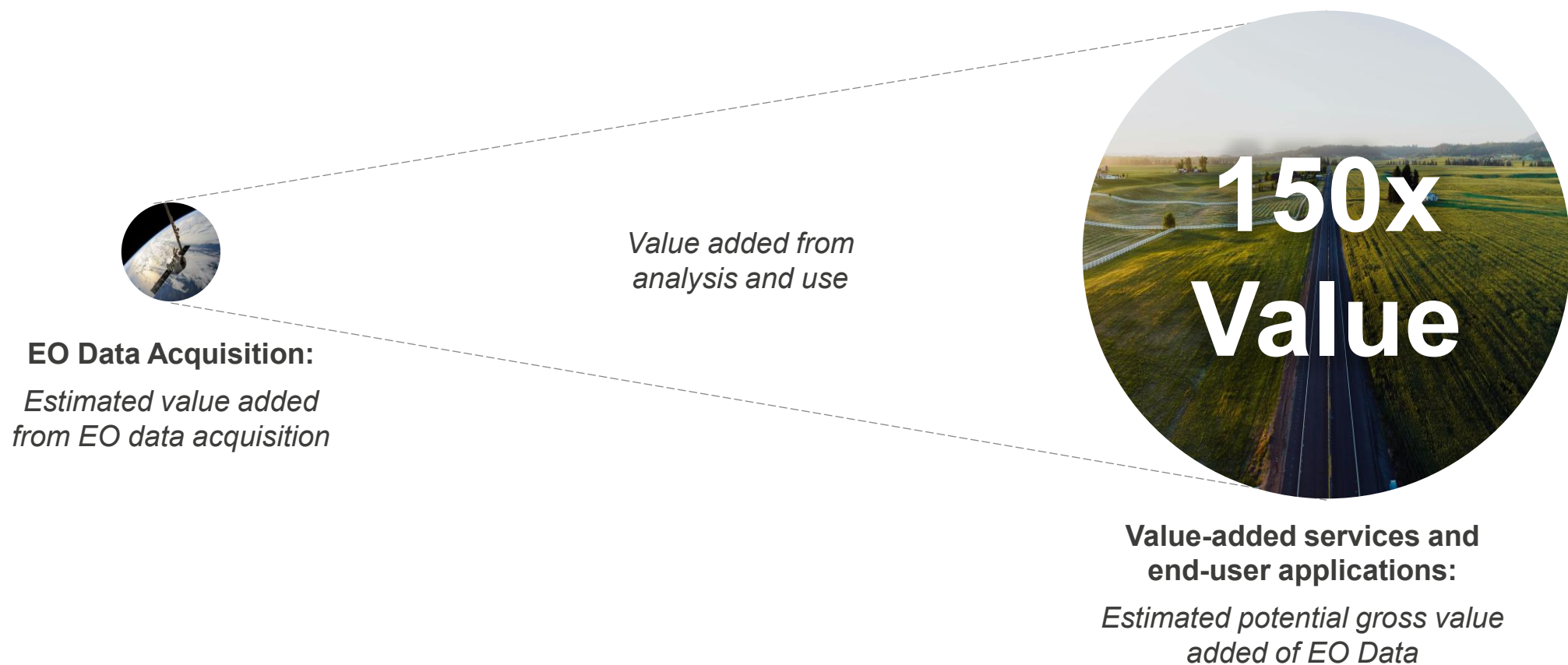
EO Applications:

1. Consumer Experience
2. Early Warning
3. Environmental Impact Monitoring
4. Post-Event Analysis
5. Precision Agri/Aquaculture
6. Risk-based Vulnerability Analysis
7. Route Optimization
8. Site Selection
9. Supply Chain Monitoring

The size of the opportunity

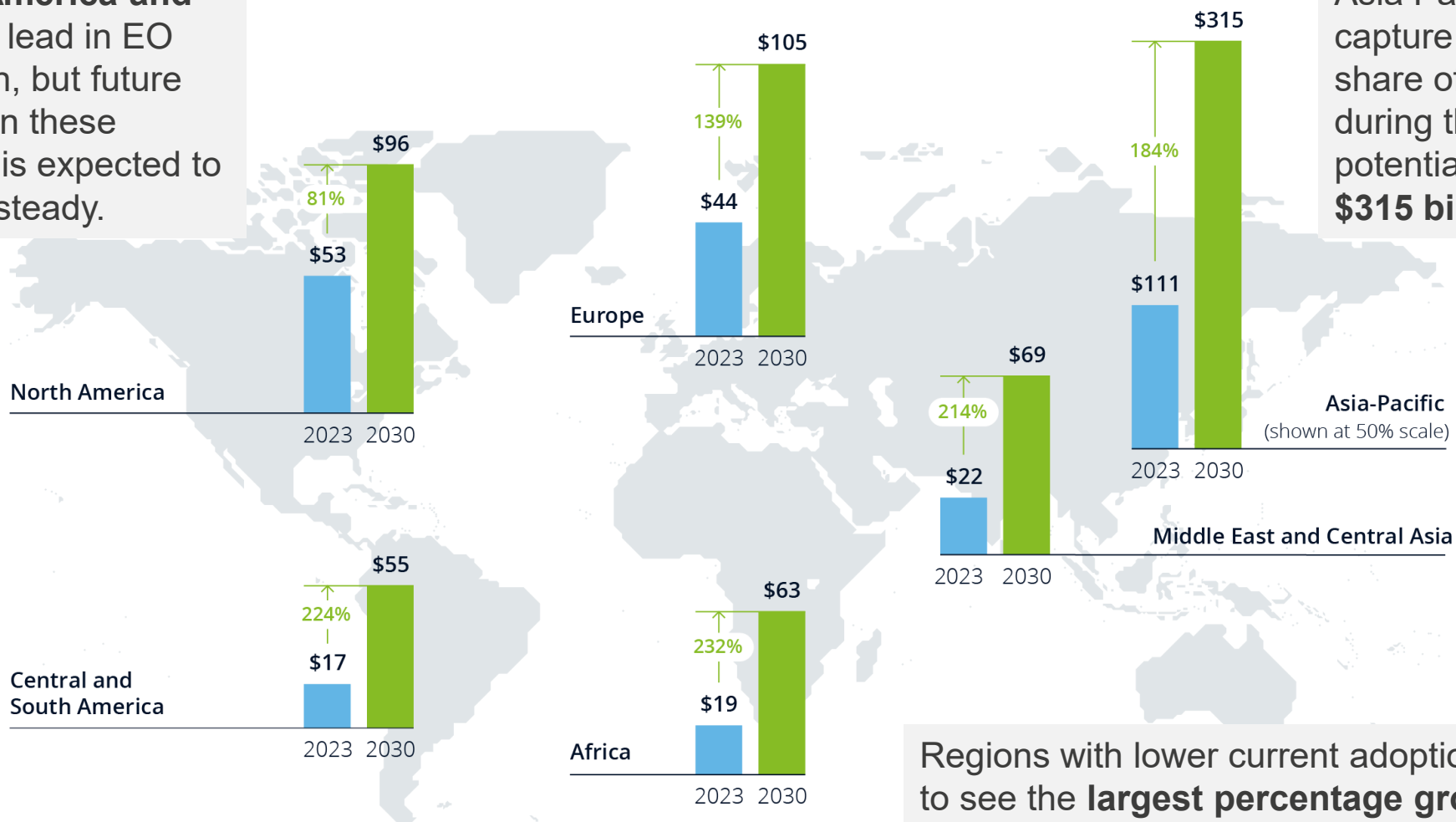


How is value created?



How is value distributed globally?

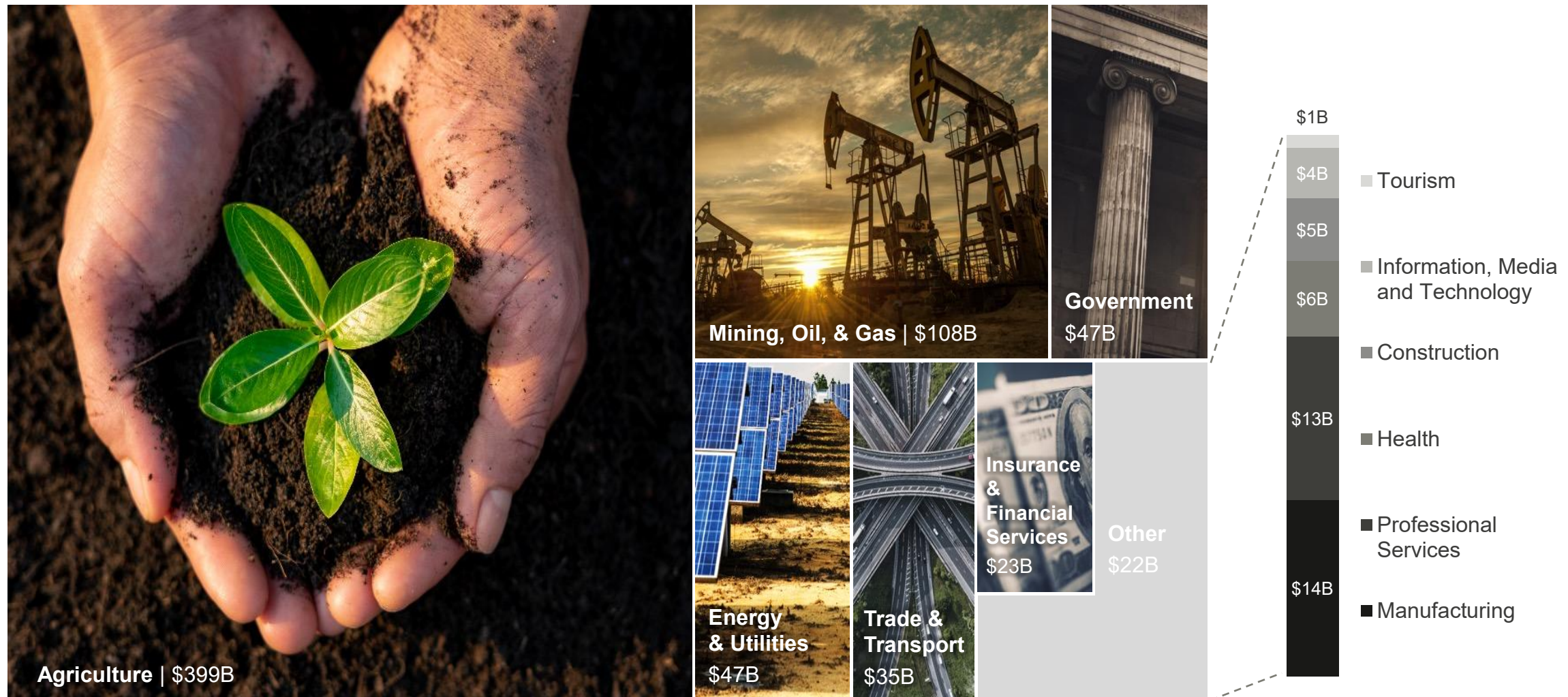
North America and Europe lead in EO adoption, but future growth in these regions is expected to remain steady.



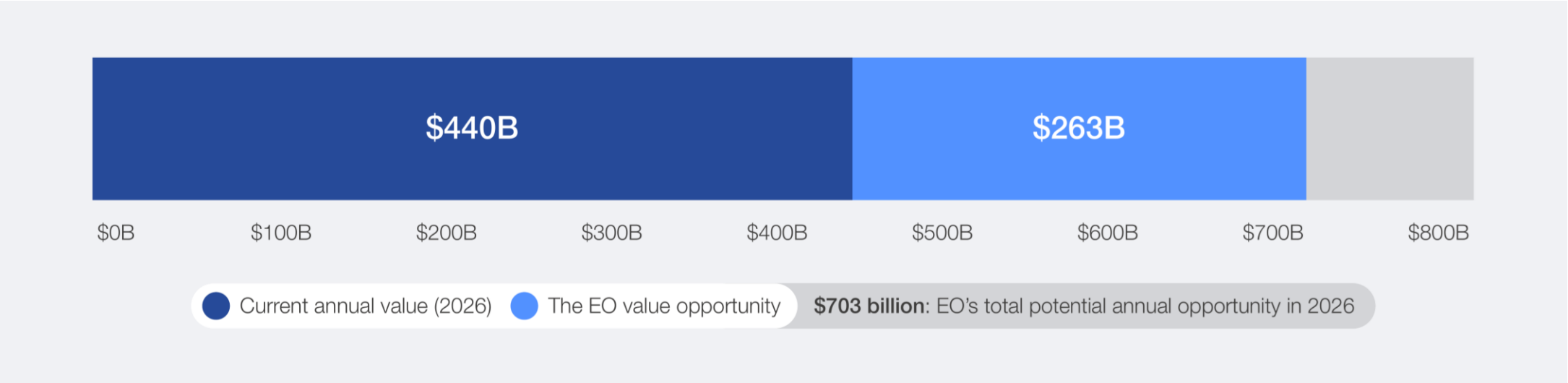
Asia Pacific is set to capture the largest share of EO's value during this period, potentially reaching **\$315 billion**.

Regions with lower current adoption are projected to see the **largest percentage growth** - up to **threefold expansion** from 2023 to 2030.

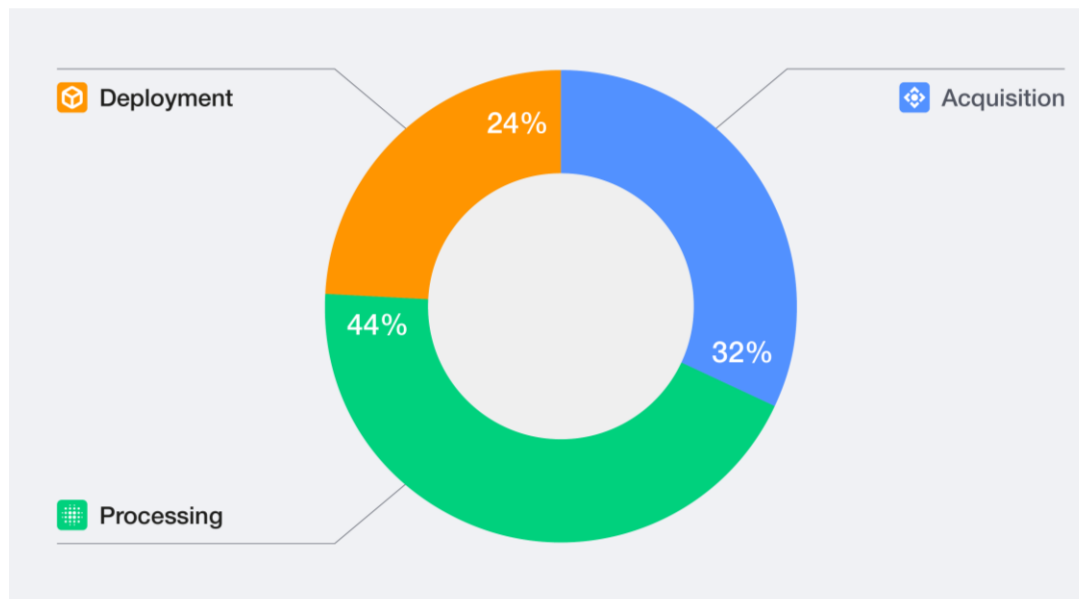
Which sectors stand to benefit the most?



How much value remains unrealized?

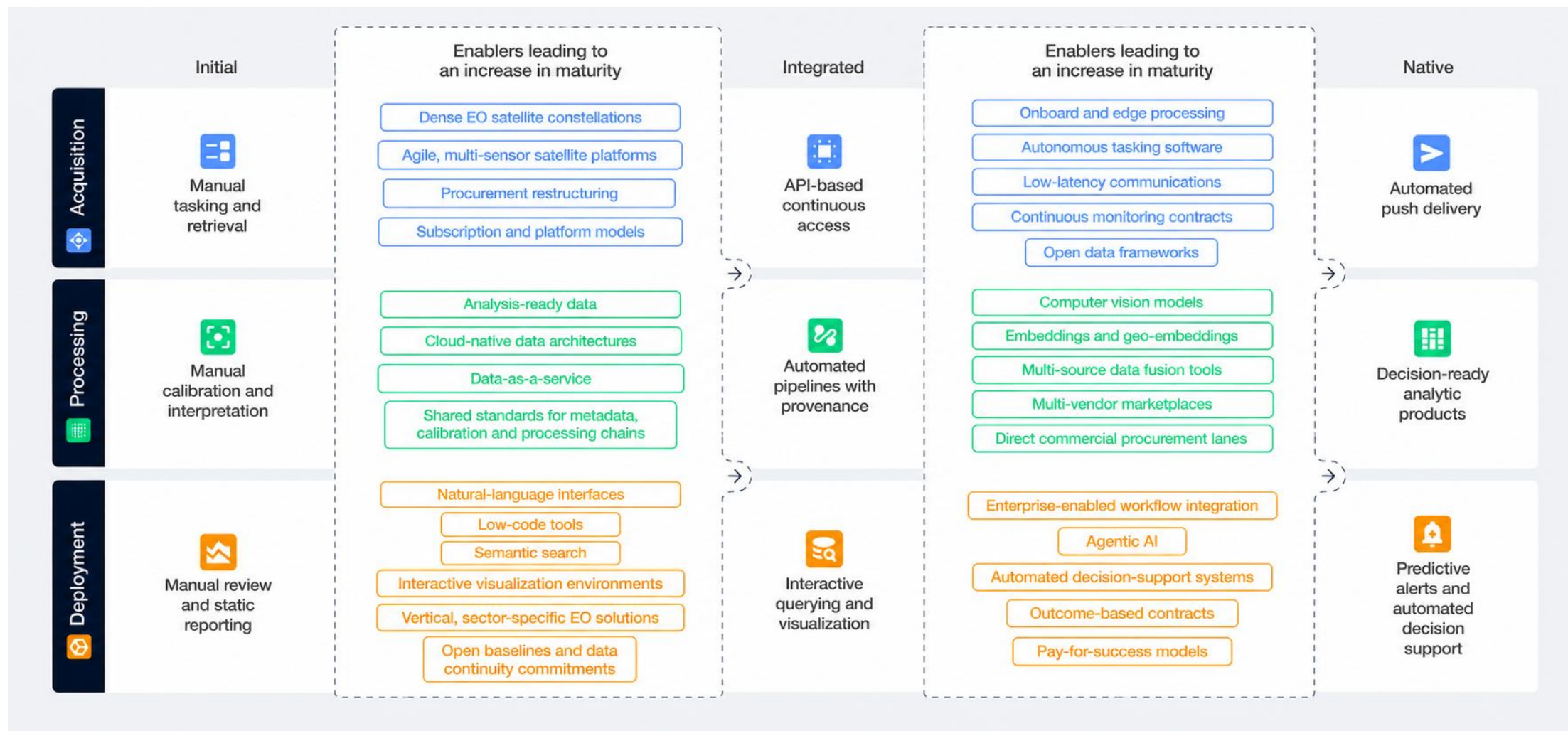


Where are the bottlenecks?



Domain	Annual opportunity	What it reflects
 Acquisition	\$84 billion	Constraints in the availability, timeliness and continuity of EO data: revisit frequency, tasking speed, downlink latency and access models
 Processing	\$117 billion	The distance between raw observation and decision-ready output: gaps in analysis-ready data, automated analytics, multi-source fusion and scalable delivery
 Deployment	\$62 billion	The challenge of embedding insights into the workflows, platforms and environments where decision-making happens

How is value unlocked?

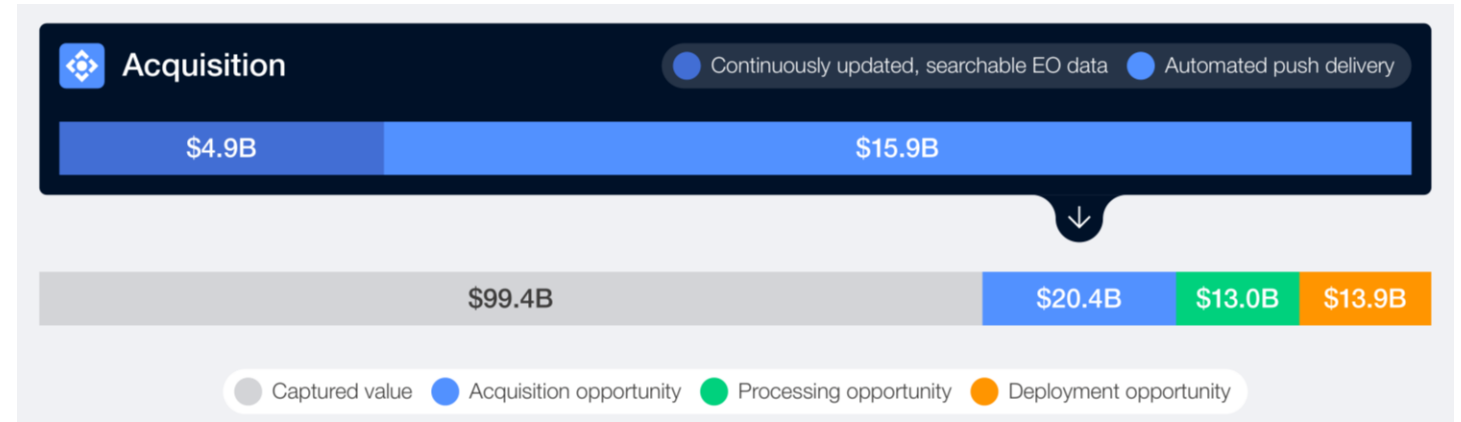


Three priority use cases





Site selection



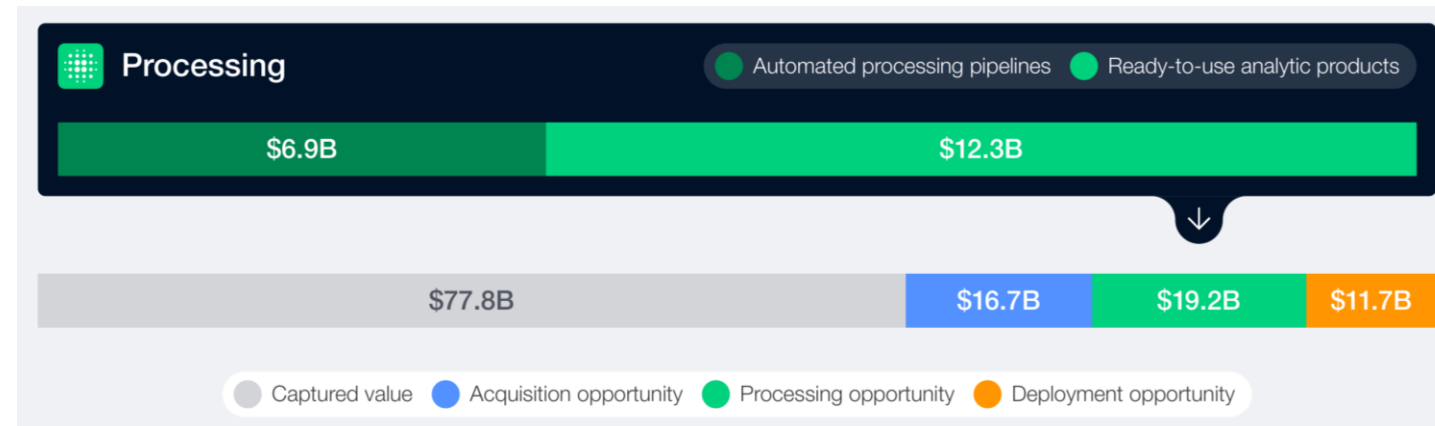
Challenge: Site-selection teams need current, comparable observations across geographies, but infrequent, delayed or inconsistent imagery slows the screening of candidate locations and capital-allocation decisions.

Continuously updated, searchable EO data replaces one-off surveys and bespoke imagery procurement, enabling teams to query entire regions and rapidly compare sites using indicators such as soil moisture and vegetation

Automated push delivery further integrates these insights into planning workflows by optimizing tasking and delivering updates directly to GIS platforms, dashboards or work queues.



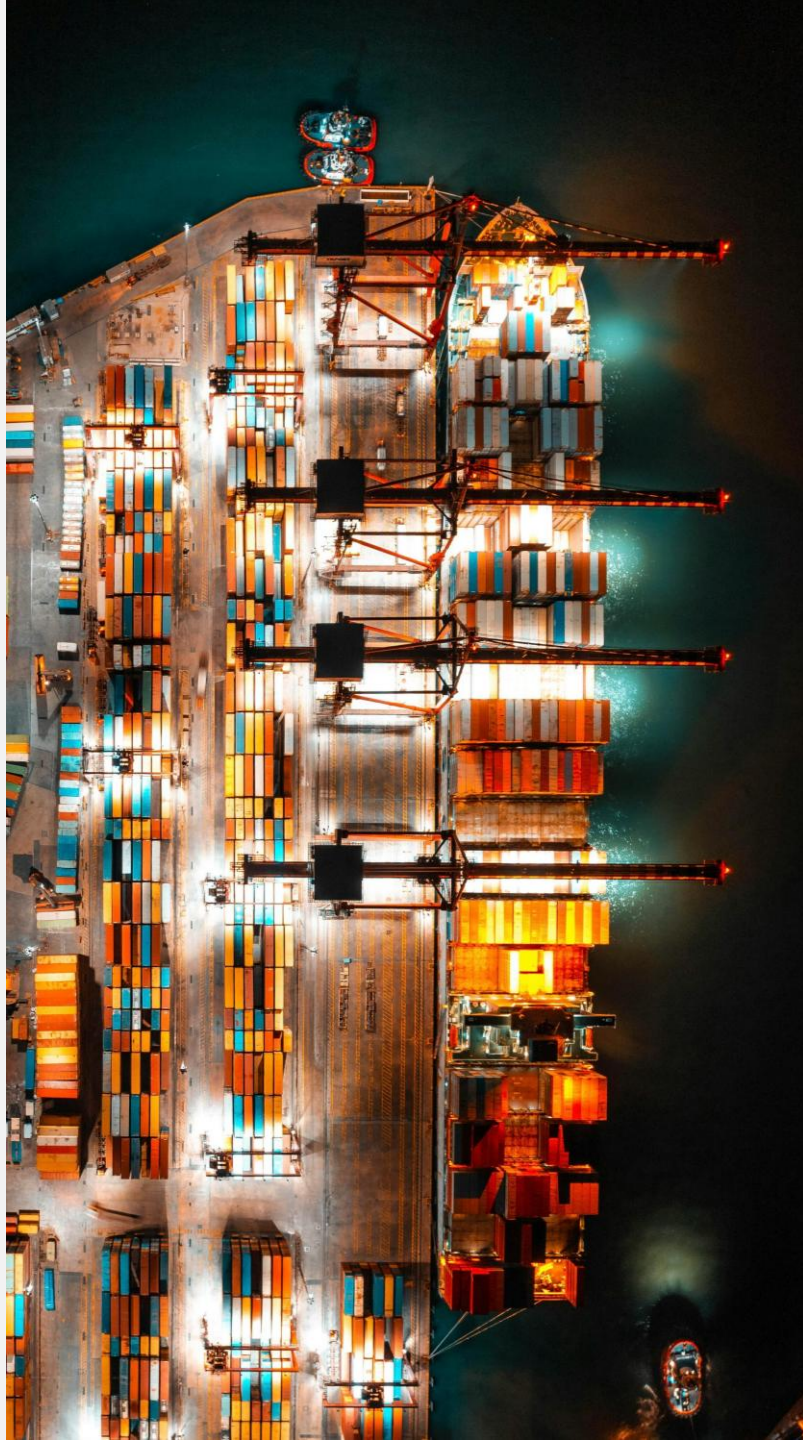
Risk and vulnerability analysis



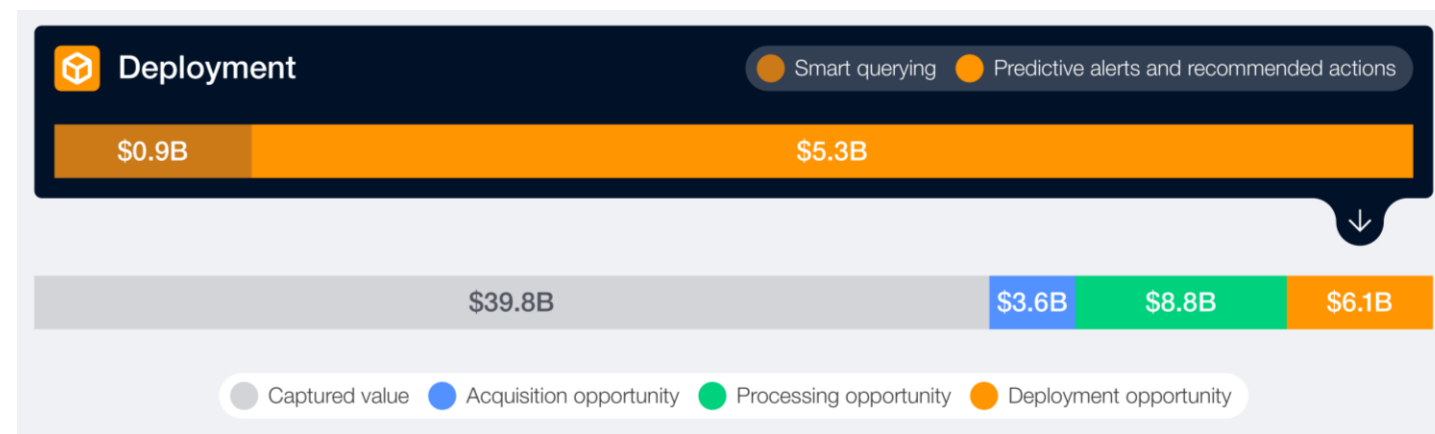
Challenge: EO can already identify hazards and exposure, but raw signals are often not converted into trusted, decision-ready risk products.

Automated processing pipelines automatically calibrate and merge multi-source imagery (e.g. optical, SAR, thermal) into consistent, analysis-ready layers that can be used to make decisions.

Ready-to-use analytic products automate change detection, feature extraction and predictive modelling, producing confidence-scored outputs that can be integrated directly into risk models, underwriting systems and governance processes.



Supply chain monitoring



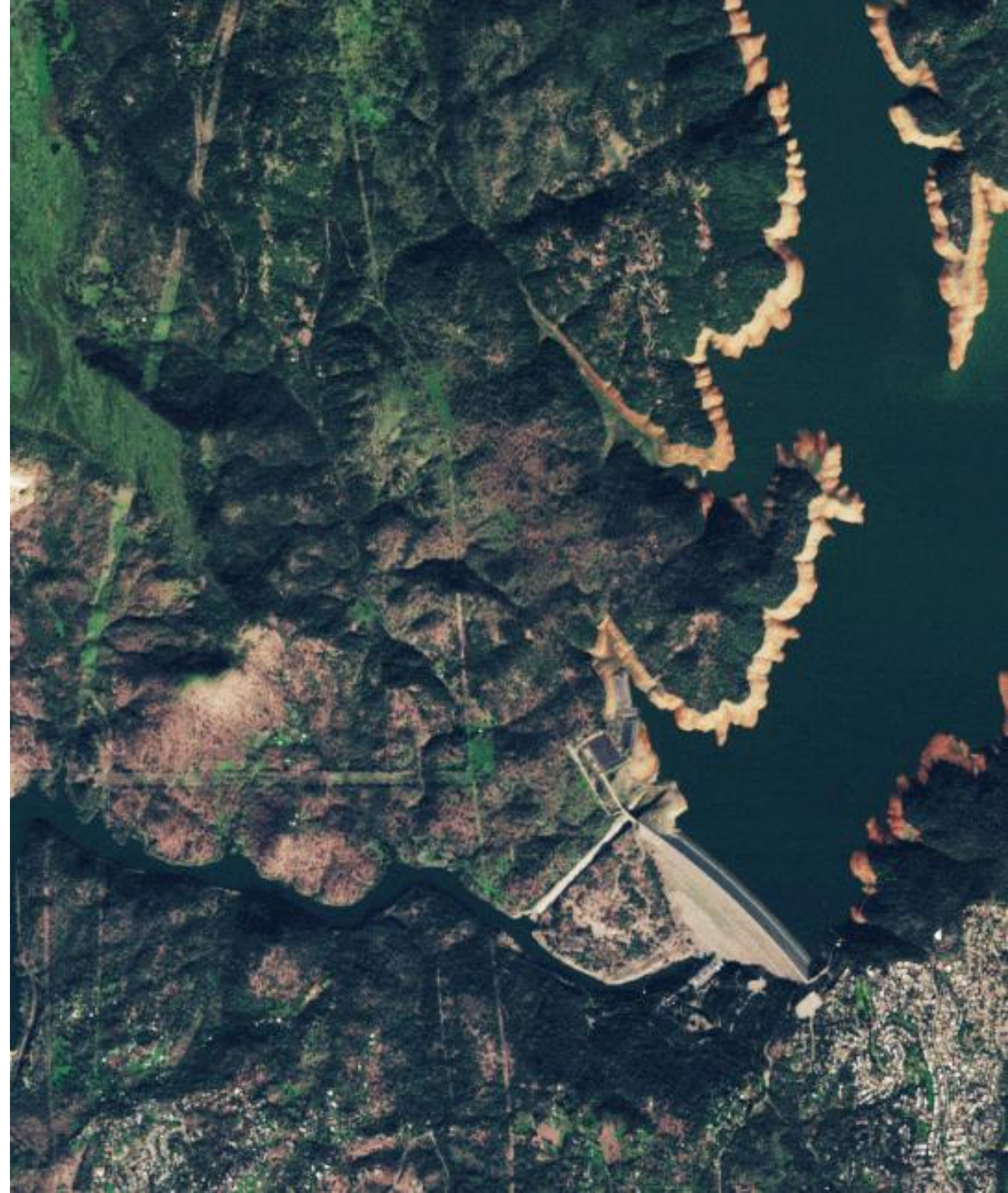
Challenge: EO can detect disruption, non-compliance and environmental harm, but these signals do not consistently reach the systems where supplier management, compliance escalation and remediation decisions are made.

Smart querying allows non-specialist users to search and interpret EO data using natural language and semantic tools, expanding the use of EO intelligence beyond geospatial specialists to risk managers and executives.

Predictive alerts and recommended actions automatically identify issues and route them to the right stakeholders through standard enterprise workflows.

Key takeaways

1. EO is not just about satellites or imagery. It is increasingly an input into economic decisions.
2. By 2030, EO could add \$703 billion to global GDP across regions and industries. Most of this value is unlocked downstream through applications.
3. \$263 billion remain to be unlocked, due to bottlenecks across acquisition, processing and deployment.
4. Unlocking this value requires coordinated progress across the EO value chain.



Thank you