

Terra Data: Unlocking the Power of Data Across Science and Industry





What is Terra Data? Two Worlds, One Name

Terra Data Repository (TDR)

Secure cloud platform for sharing large biomedical datasets. Enables researchers to access and collaborate ethically.

Terra Platform

Cloud-native environment for biomedical analysis, workflows, and team collaboration. Powers scalable genomic research.

NASA's Terra Satellite

Earth observation source since 1999. Delivers multispectral data for climate, environment, and global monitoring.



Terra Data Repository (TDR): Revolutionizing Data Sharing

01

Effortless Sharing

Eases dataset owners' sharing and researchers' access to massive biomedical files without complexity.

02

Snapshots & Organization

Fine-grained data structuring with snapshots—avoids costly duplication while preserving versions.

03

Secure Access Control

Integrates DUOS for streamlined oversight. Ensures ethical compliance and consent management.

04

Reproducibility Guaranteed

Supports versioning and consent withdrawal. Maintains research integrity and data ethics.



Terra Platform: Cloud-Native Biomedical Research Hub



Secure Public Datasets

Access TCGA, TOPMed, eMERGE genomic libraries with robust security.

Interactive Tools

Jupyter Notebooks, RStudio, Galaxy for direct data exploration and coding.

Automated Workflows

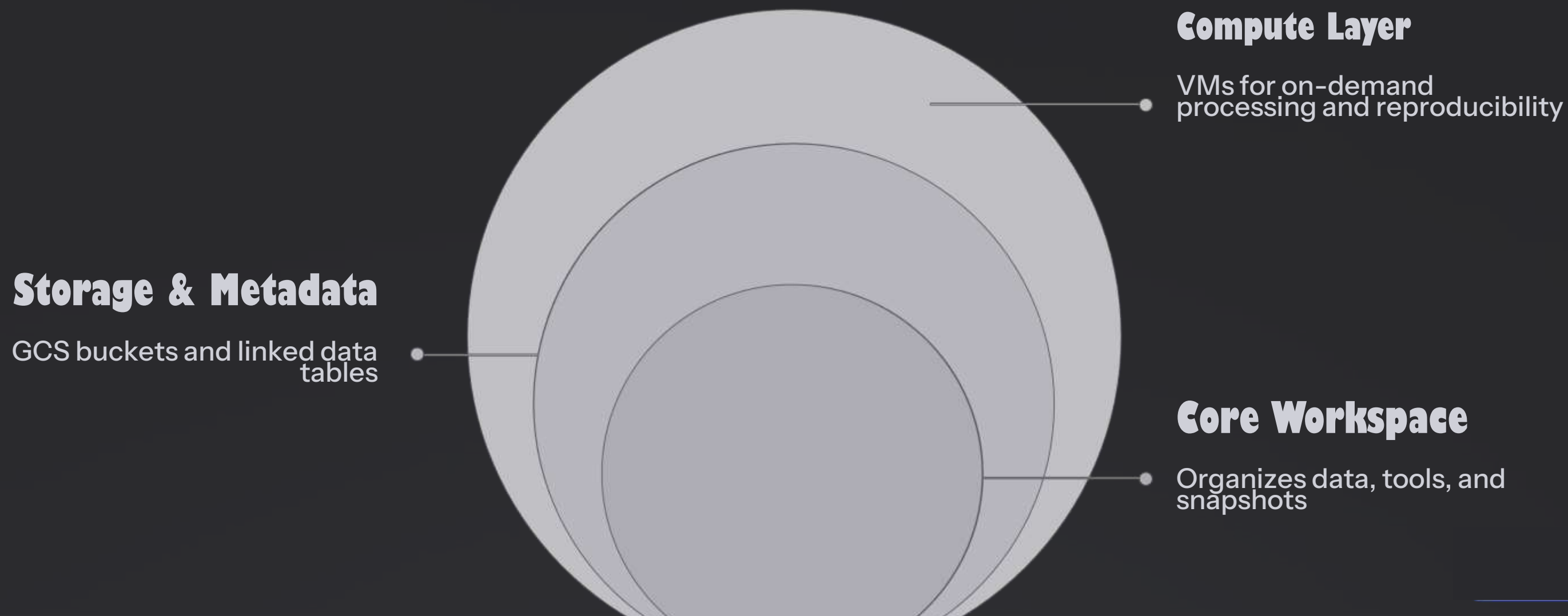
WDL enables scalable, reproducible pipelines for complex analyses.

Google Cloud Power

On-demand compute and storage for efficient, flexible research scaling.



Inside Terra's Architecture: Seamless Cloud Integration



NASA's Terra Satellite: Earth Data from Space Since 1999

MODIS

36 spectral bands monitoring land cover, vegetation, and global changes.

MOPITT

Tracks atmospheric carbon monoxide for pollution analysis.



ASTER

High-resolution imaging for terrain mapping and volcanic activity.

MISR

Multi-angle views tracking aerosols, clouds, and ocean currents.

CERES

Measures Earth's radiation budget for climate modeling.

Five instruments deliver data for climate, pollution, and environmental research. Accessible via global data centers.

Teradata: The Enterprise Cloud Analytics Powerhouse (Not to be Confused!)

Company Overview

Founded 1979 in San Diego, CA. Global leader in data solutions.

Serves finance, healthcare, retail, manufacturing, telecom.

VantageCloud Platform

Hybrid cloud analytics with Trusted AI at enterprise scale.

Advanced data warehousing, real-time insights, and AI-driven decisions.



Visualizing Terra Data in Action



These visuals showcase real-world applications—from cloud workflows to satellite insights and AI analytics.

The Future of Terra Data: Expanding Horizons



AI Integration

Smarter discovery, automated analysis, predictive insights.



Growing Ecosystem

More partners, tools for diverse scientific and industry needs.



Enhanced Accessibility

Large-scale data with top-tier security and compliance.



Empowering Impact

Solving climate, health, and economic challenges worldwide.



Thank You

