



TAU

**TRUE AFRICA  
UNIVERSITY**



# Gro Intelligence

Introduction

MIT x TAU

[www.gro-intelligence.com](http://www.gro-intelligence.com)



TRUE AFRICA  
UNIVERSITY



Massachusetts  
Institute of  
Technology



# Gro Is the Story of What on Earth Is Going On



AI-powered decision engine across climate, agriculture, and the economy



## Domain Expertise

Curated by human intelligence. Domain experts who work closely with engineers and data scientists.



## Artificial Intelligence

Translating, transforming, and normalizing data through a proprietary knowledge graph.



## Insights and Analytics

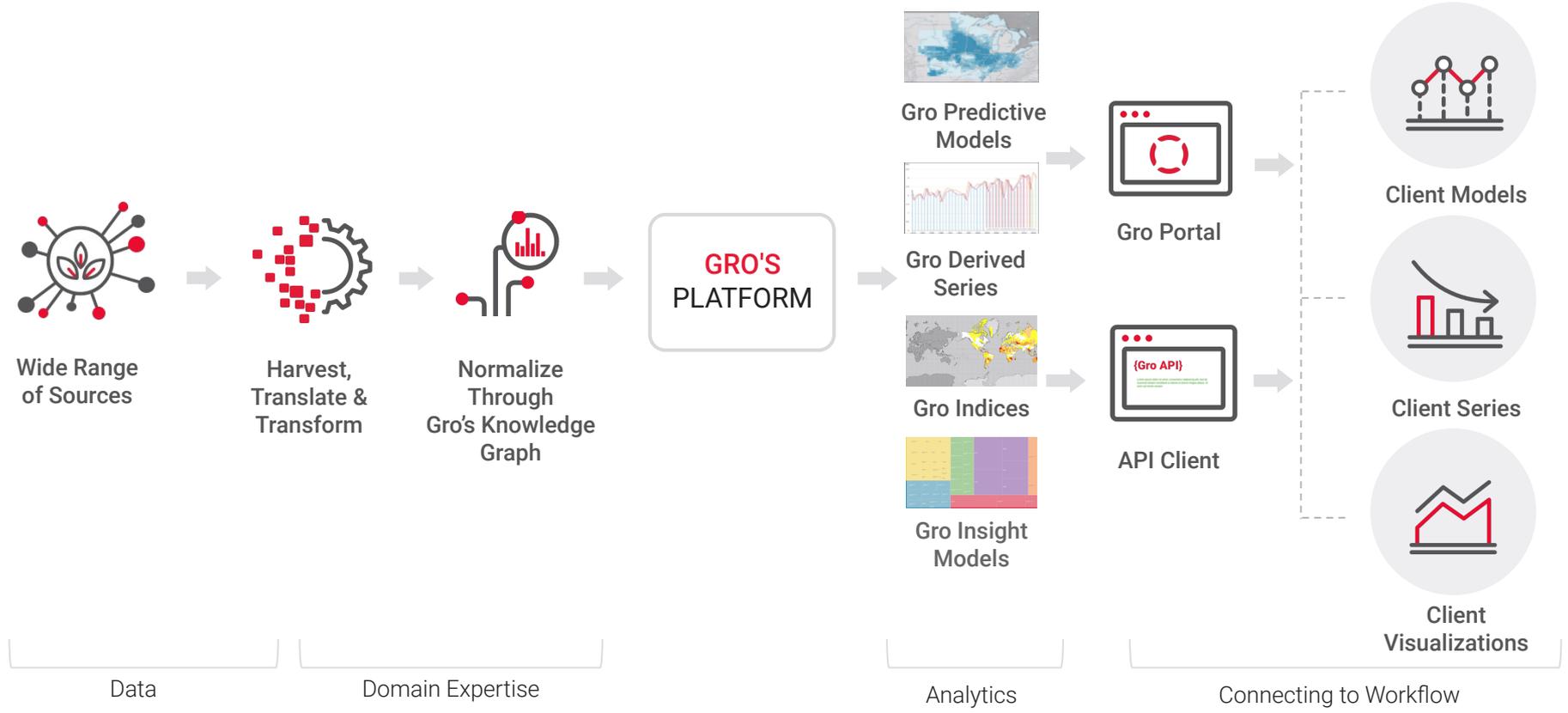
Models, indices, and frameworks for providing honest answers and more confidence.



## Platform Access

API access or portal visibility allowing for easy integration into workflows.

# Our Process: Getting to Actionable Insights and Honest Answers



# The Gro Platform | GROUND TRUTH FOR AG AND CLIMATE INTELLIGENCE

A knowledge graph and insights generator

**650 trillion**  
data points

**60 million**  
data series

**40,000+**  
sources

Normalized, connected, and fitted into a unified knowledge graph designed and built by Gro

## Gro Model Types

- Crop Masks
- Yield Forecast Models
- Demand Model Frameworks
- Supply Model Frameworks
- Pest & Disease Models
- Price Models
- Climate Model & Indices

**OVER 25K**

CLIMATE DATASETS

Climate Projection Model Outputs\*

Satellite Data

Ground-based Data

Topography and Soil Data

Climate specifics: \*Intergovernmental Panel on Climate Projections (IPCC) Climate Model Projections, Satellite-based Remotely Sensed Environmental Data, Ground-based Data from Collection at Weather Stations

# Examples of Decisions Being Made by Our Clients

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The questions asked by clients are typically relevant across multiple industries.  
Gro's Platform provides solutions that are applicable for all clients.

## Seed & Crop Protection

What will **farmer planting intentions** be so that I can **anticipate demand** and **forecast revenue**?

## Retail

Which key sourcing regions are at **risk due to climate & weather** changes/ unpredictability to **ensure supply**?

## Governments / Public Sector

How does **water productivity** for a given area impact yield and domestic **food security**?

## Food & Beverage

How can we **monitor prices and maintain margins** by determining real-time crop supply in major producing countries?

## Finance

What are **key drivers of stock prices** for each of the sectors we are covering?

# Gro Climate Indices

## Key features of all Gro Climate Indices:



### Global:

underlying data is ingested at square kilometer scale and outputs are available for every district, province, and country worldwide.



### Automated:

index calculations and weights are automated ensuring absolute objectivity.



### Holistic:

each model looks beyond a single indicator and considers a complex mix of appropriate variables. This makes indices robust to flaws in individual raw data points.

*For example:* inputs into the Gro Drought Index include not only temperature and precipitation, but also variables like soil moisture, evapotranspiration and soil type.

**The index uses a total of 46 variables.**

# Gro Climate Indices

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- **Live Indices in Gro Platform**
  - **Gro Drought Index (GDI):** the world's highest resolution, most frequently updated global index of drought.
  - **Gro Climate Change Index (by scenario):** aggregations of long-range climate model data that provide long term climate risk profiles.
  - **Gro Climate Variation Index:** measures rainfall and temperature volatility.
- **In Testing**
  - **Gro Climate Extremes Index (GCEI)** monitors the number of environmental indicators that are currently in either the first or 10th decile of their histories
  - **Gro Flood Index:** a high resolution, global flood index
  - **Gro Water Index:** an assessment of global water availability and use

# 3 Books

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