

# 

### AI-POWERED MARKET INTELLIGENCE AND BUSINESS APPLICATIONS



### OUR SERVICES We work in four application areas



### Market intelligence

Robust research and market analytics for businesses and investors.



### **Business analytics** Make the most of your data via thorough analyses and AI-powered approaches.

### **OUR FIRM**

We are a group of professionals who believe that data and evidence are cornerstones of business decision-making, performance, and competitive advantage.



BI, automation, and data engineering Solutions for scattered data, multiple data sources, and manual reporting processes.



**Data-driven transformation** Introduce best practices in evidence-based decision-making.

ENGAGEMENT MODELS Analytics solutions that create value require a solid, multidisciplinary team

### **SPECIFIC NEEDS**

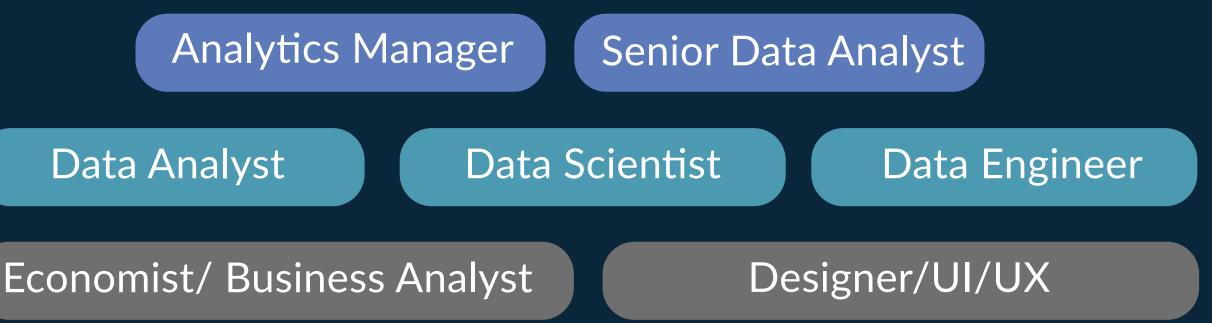
Consultant Self-contained, deliverable-based projects.

### **RECURRENT NEEDS**

Staff augmentation Our specialists work in on-demand tasks with your team.

Subscription-based services Our specialists work in on-demand tasks with your team.





# OUR CLIENTS

We have been strategic partners for multiple key decisions and optimization projects with market leaders in multiple sectors

















































Research

**Economics and DMACore**®

# Market, industry and competition analytics

### **1. Market size estimation**

- 2. Competition mapping
- 3. Sectorial analysis
- 4. Sector performance forecasts
- 5. Geospatial analytics\*
- 6. Mobility data analytics\*\*

\*Use high-resolution satellite and geocoded data for multiple market research applications, such as market size estimation (population), influence area definition, competition mapping, among others.

\*\*Allows to analyze mobility patterns based on mobile devices data



**BI**, automation and data engineering



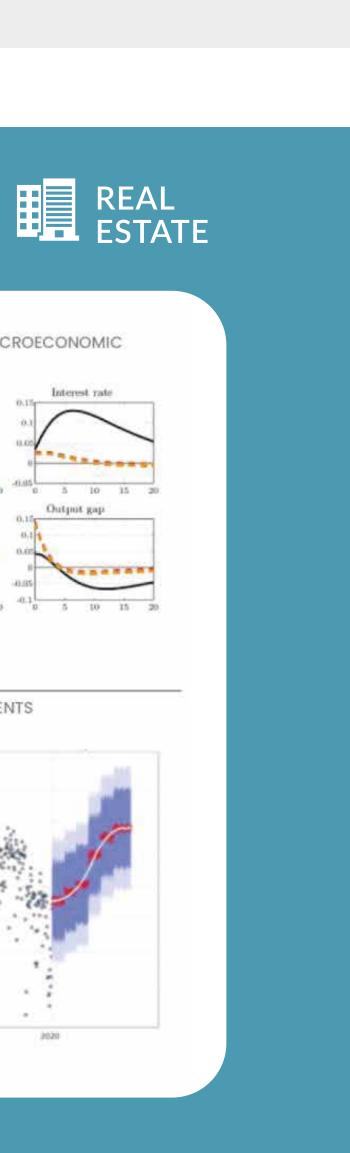
**Data-driven** transformation

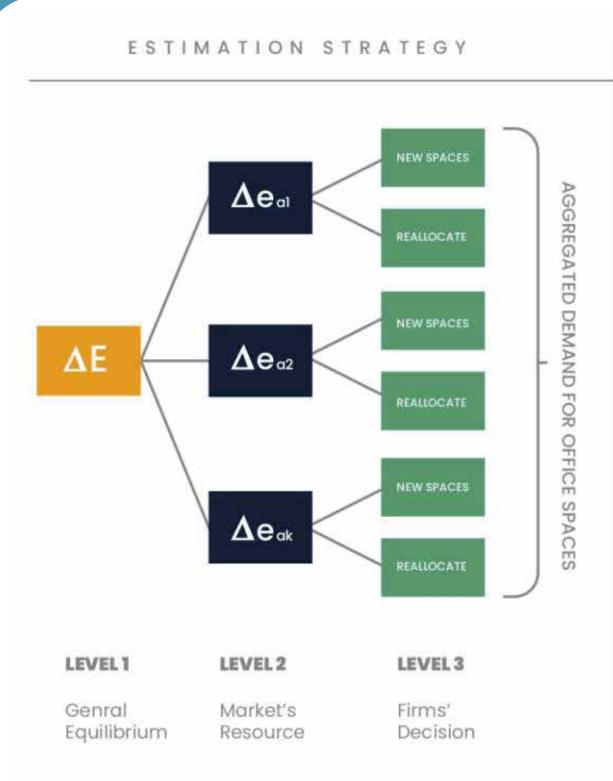
Data generation

Investors

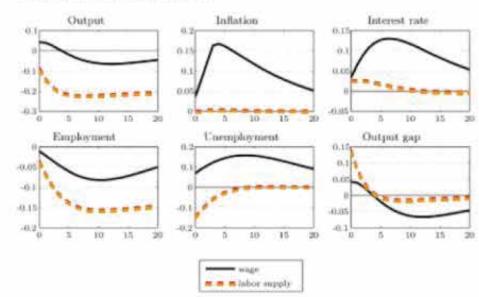
OLM®

#### Application: **Demand estimation for office space**

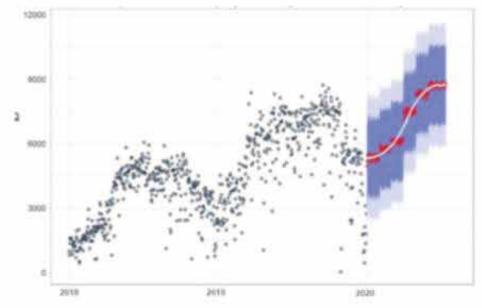




IMPULSE RESPONSE FUNCTIONS OF MACROECONOMIC



ECAST OF NEW EMPLOYMENTS BY ECONOMIC ACTIVITY









Research

**Economics and DMACore**®

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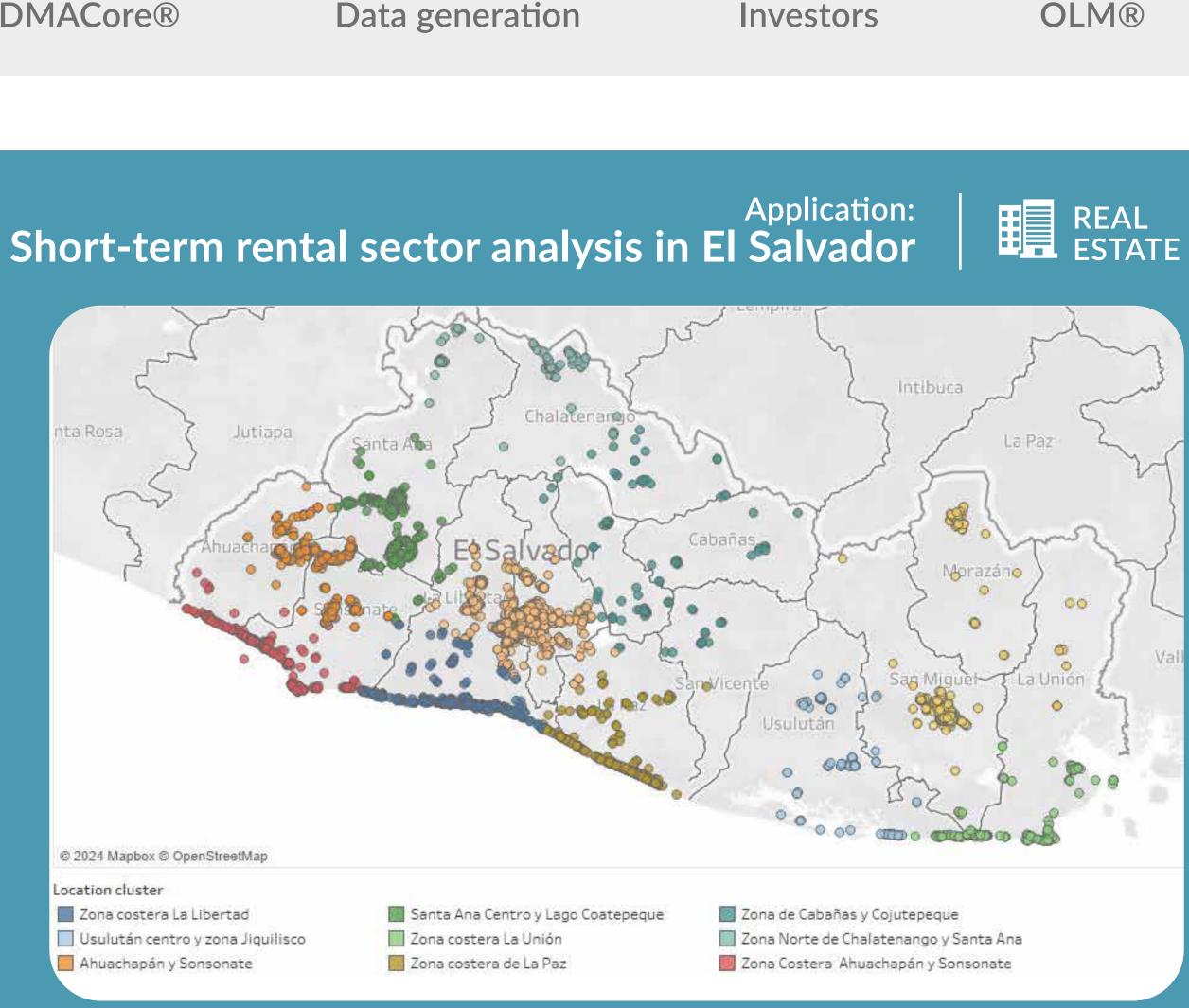
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BI, automation and data engineering











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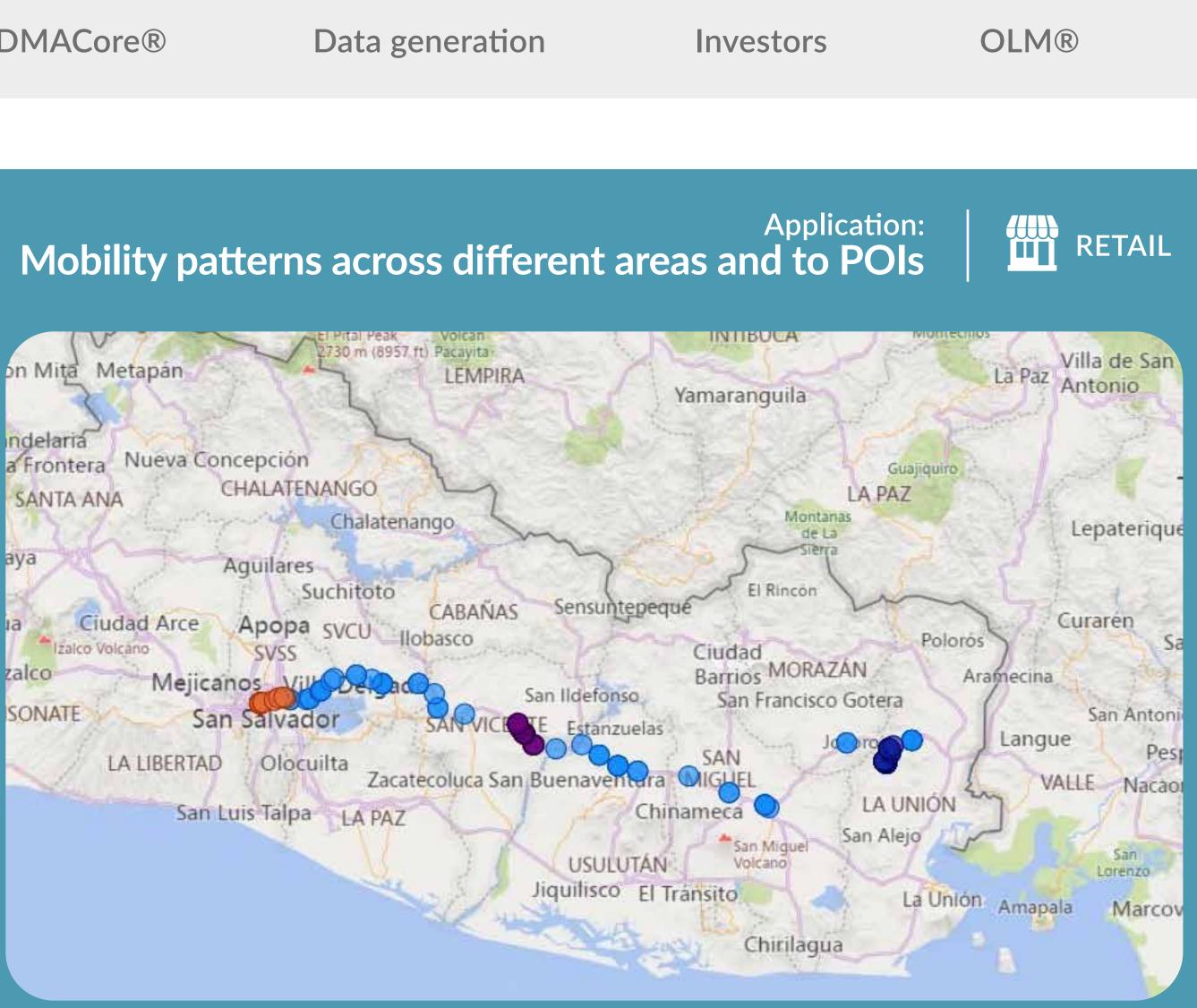
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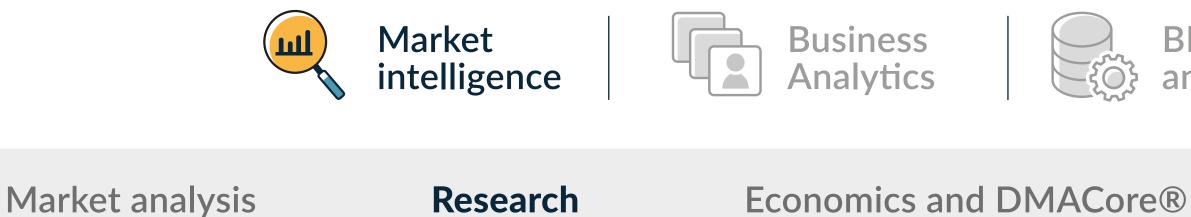
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BI, automation and data engineering







### **Research and** industry reports

Quantitative research for multiple sectors, including machine-learning applications. Our thorough approaches have helped multiple firms and investors, and our specialists have collaborated with the international development sector to produce high-quality knowledge for policy formulation.

Our firm periodically produces publications and industry reports which are accessible via our webpage.

**Recent publication (jointly with IDB staff):** Nowcasting Poverty in Central America, Panama, and the Dominican Republic: A Micro-simulation Approach, *accessible here*.

**BI**, automation and data engineering



**Data-driven** transformation

**Data generation** 

Investors

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OLM®

#### Application: **Poverty nowcasting** (short-term forecast) in Central America

**TECHNICAL NOTE Nº IDB-TN-2905** 

Nowcasting Poverty in Central America, Panama, and the Dominican Republic: A Micro-simulation Approach.

**Carlos Eggers** Lucía Martín Laucel Muñoz Álvaro Salamanca

April 2024









Research

**Economics and DMACore**®

### **Economic analysis** and forecasts

Out team also specializes in compiling, curing, and harmonizing relevant economic data for multiple uses. From macro data (GDP, inflation, exports, among others) to micro-level data (household surveys, labor markets, firm-level data), we provide both advisory and insights using this data.

Our firm also have proprietary forecasts (DMACore<sup>®</sup>) you can use for your own estimations and analyses. You can access them via API o raw data access.

See here for our data catalog for El Salvador.



BI, automation and data engineering



**Data-driven** transformation

Data generation

Investors

OLM®

Application: **DMACore data and forecasts** 



### DMACore® The one-stop external data repository

- **1.** Macroeconomic and sectorial GDP, employment, etc.
- 2. External sector Imports, exports, remittances, foreign investment, etc.
- 3. Demographic and Socioeconomic Number of people, income ,household size, etc.
- 4. International data Commodity prices, country-risk data, etc.
- 5. Speciality dataset Purpose-built datasets on various topics.









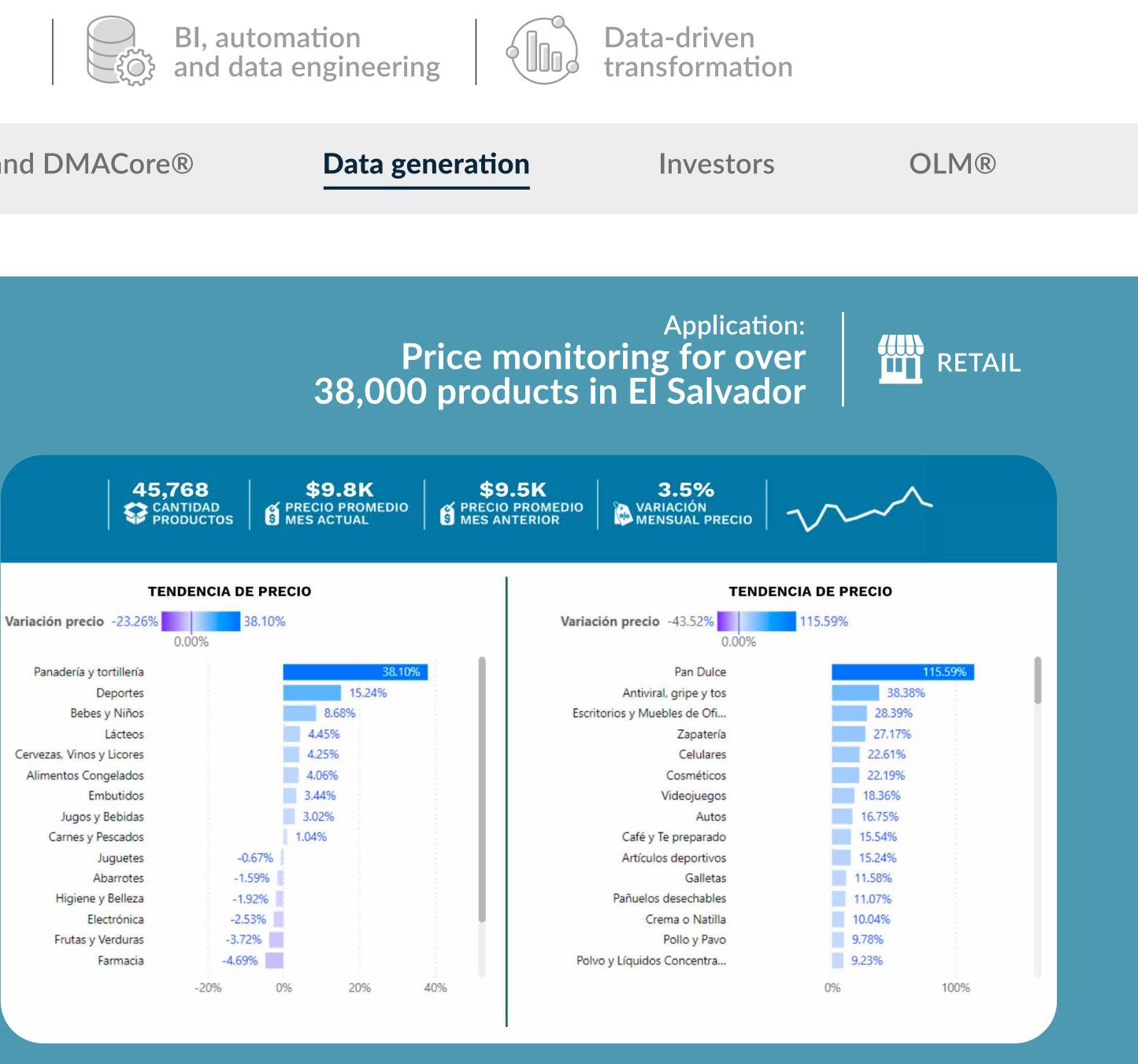
Research

**Economics and DMACore**®

### Data generation services

1. Web scrapping

- 2. Robotic Process Automation (RPA)
- 3. Data enrichment







Research

**Economics and DMACore**®

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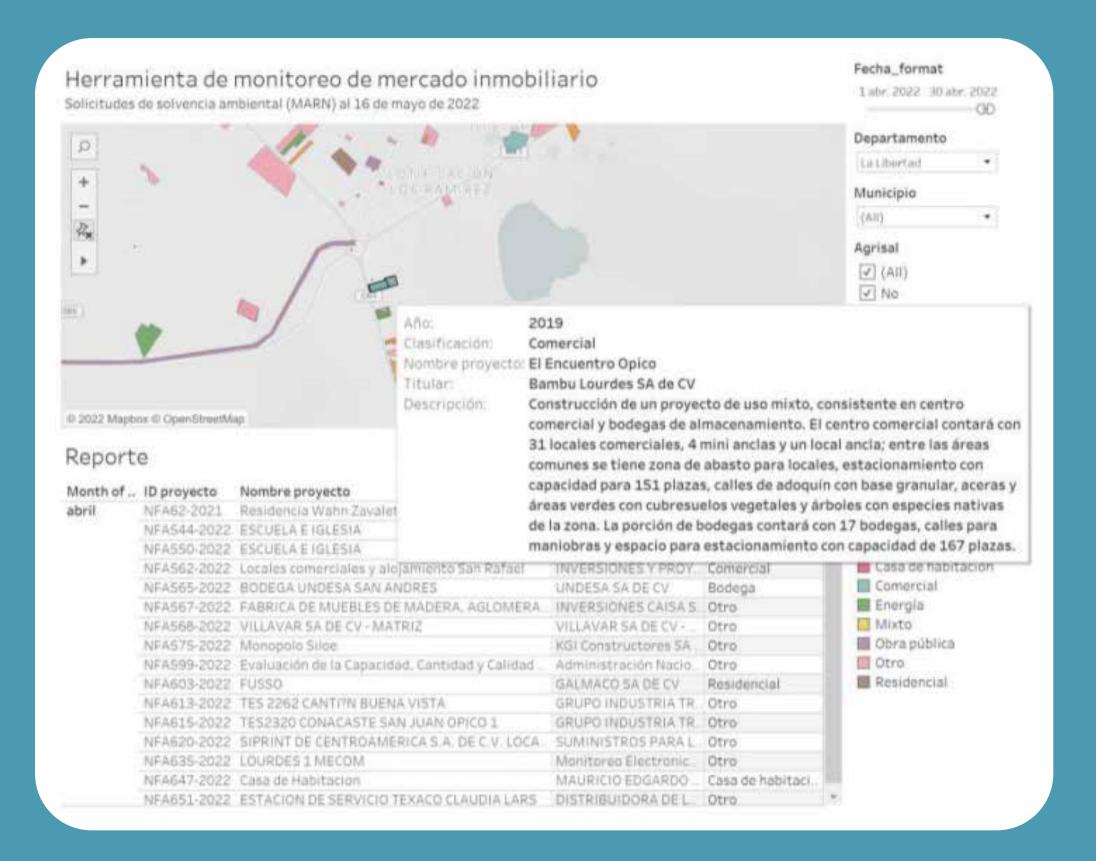
**Data-driven** transformation

Data generation

Investors

OLM®

#### Application: Real estate monitor (REMonitor) in El Salvador









Research

Economics and DMACore®

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**BI**, automation and data engineering



Data-driven transformation

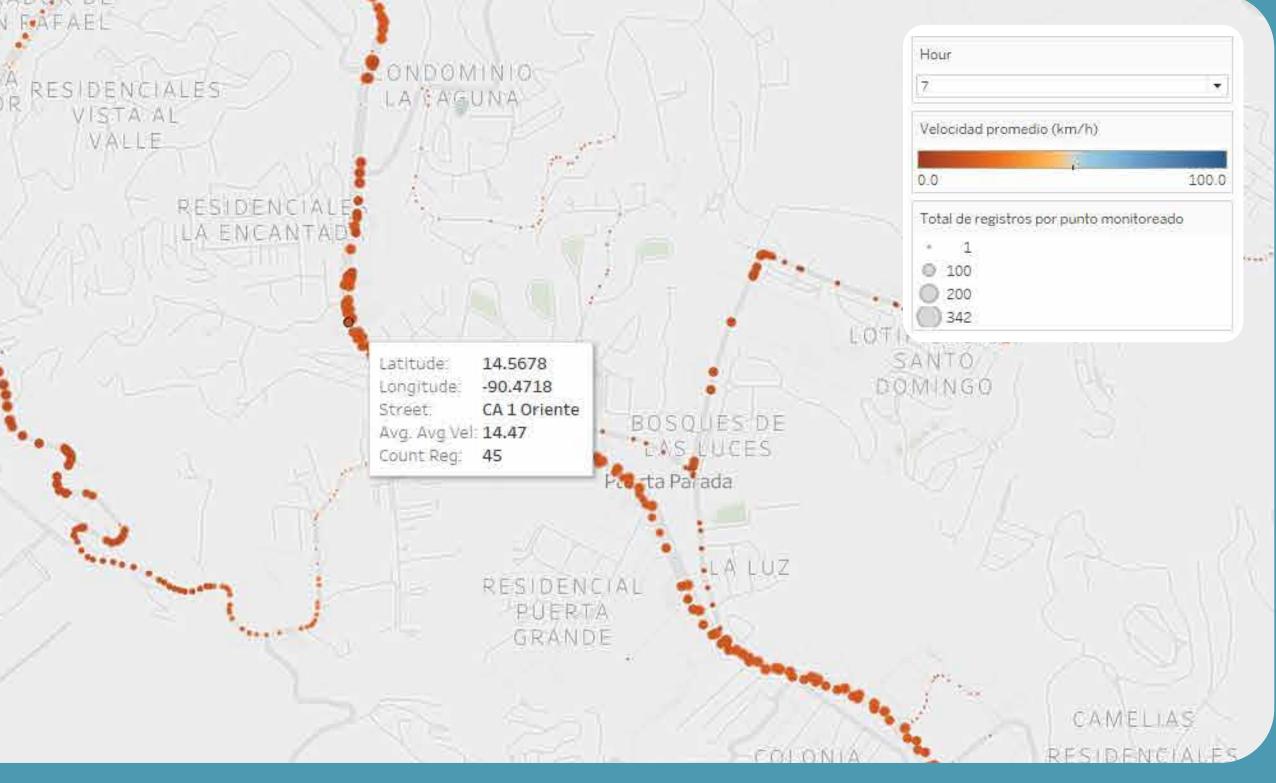
#### Data generation

#### Investors

OLM®

#### Application: Traffic monitor











Research

**Economics and DMACore**®

### Investors: enhance your due diligence

Focused on the pre-feasibility stage of investment, these services aim to answer whether there is enough market size and demand for a business venture to be profitable. We use robust methods determine the potential to capture cash flows which can later be used in financial model.

#### **Applications include the following sectors:**

- 1. Real Estate
- 2. Technology startups and Fintech
- 3. Retail

**Application: using satellite data to estimate market** size for a commercial real estate investment



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**Data-driven** transformation

Data generation

Investors

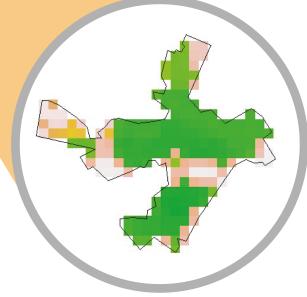
#### Application: Market size estimation using satellite data



#### Project influence area



Estimated population in area: 8,624 people (2019)









Research

**Economics and DMACore**®

# **Optimal location** model: OLM®

Uses geospatial analytics and high-resolution data to determine the optimal location to open a store o to build a distribution center. The model is calibrated to work with multiple use cases of the following sectors:

#### 1. Retail

2. Logistics

3. Real estate

The Optimal Location is defined by using a six-dimensional decision model.





BI, automation and data engineering



**Data-driven** transformation

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#### **Data generation**

Investors

**OLM**®

GRAVITY

Index that indicates how many people arrives to the area for work purposes every day.

#### OPTIMAL LOCATION Selection across investment prospects



#### POPULATION

Number of people within an influence area using high-res satellite imagery.

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#### **SERVICES AND POIs**

Location of businesses of relevant categories and points of interest.



#### TRAFFIC

Average speeds and reports on the road helps define the relevant market boundaries.

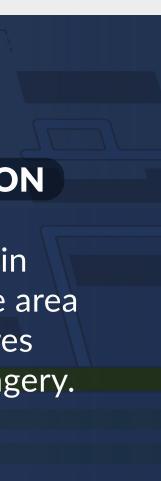
#### **MOBILITY PATTERNS**

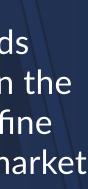
Origins of people that visit the area and concentration within the influence zone.



#### **FUTURE PROJECTS**

Location of future constructions for determining competition or synergies.









Machine learning models Al-powered business applications

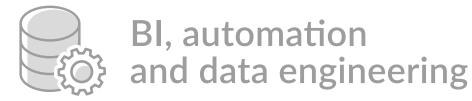
## **Top-tier analytics** using ML and Al

Using business data combined with market expertise, our team specializes in designing, testing, and deploying ML-powered models for a variety of purposes.

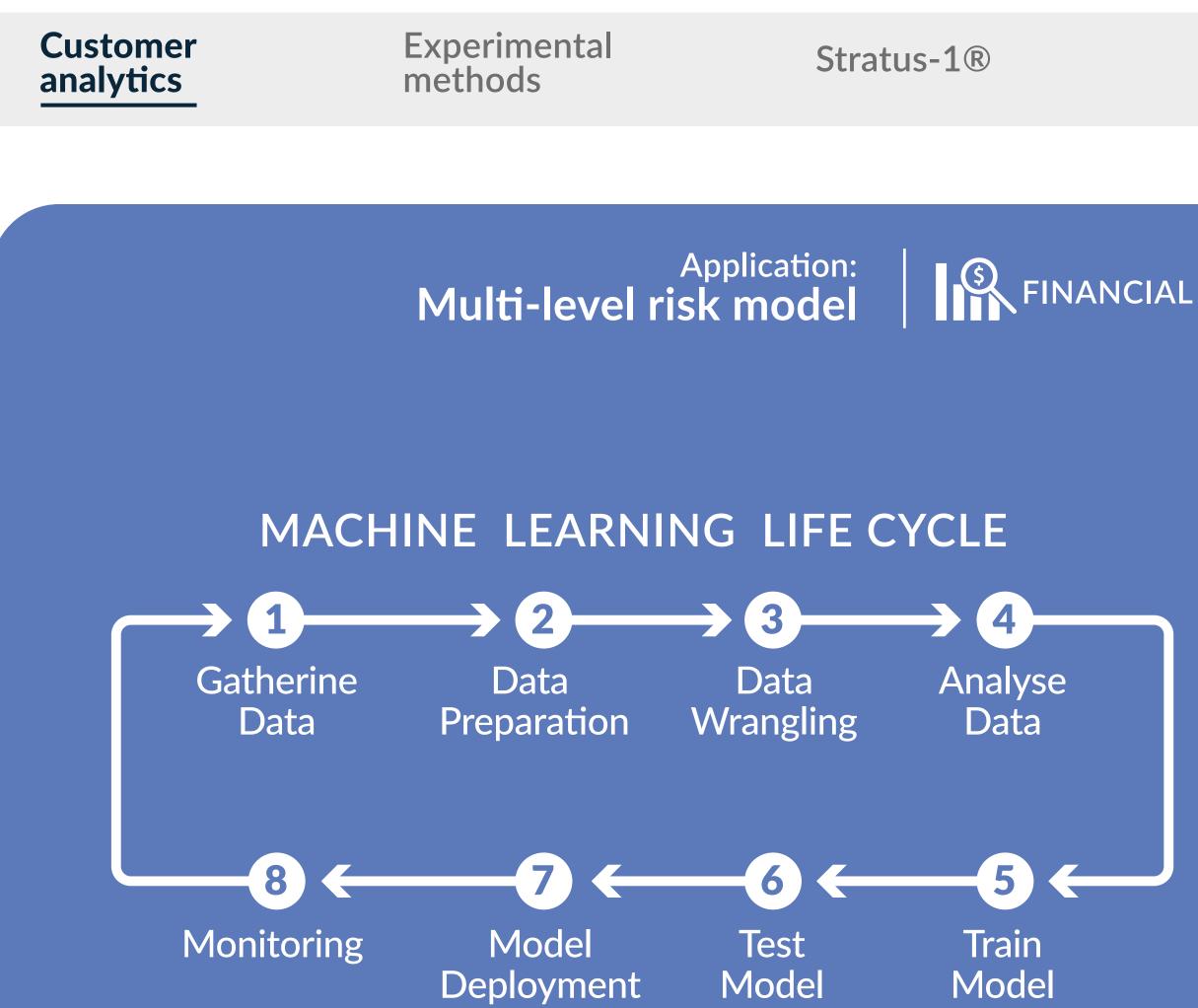
Jointly with our data engineering team, we can create robust data pipelines to obtain timely insights for decision-making and project optimization.

This include streaming models (real time) and near-real time data analytics.

Applications range from dynamic sales forecasts to risk modelling. All our projects are custom-fits to the client's needs, goals, and data structures.











Machine learning models

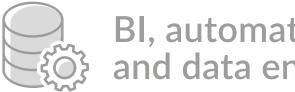
Al-powered business applications

### **Customer analytics** and segmentation

### **1. Customer segmentation**

- 2. Geospatial client analytics<sup>\*</sup>
- 3. Cohort analysis and other KPI monitoring and automation
- 4. Near-real time client monitoring

\*Using geocoded client data we are able to design analytical models for a variety of puposes such as geographic clustering, influence area definition, captive market size estimation, among others



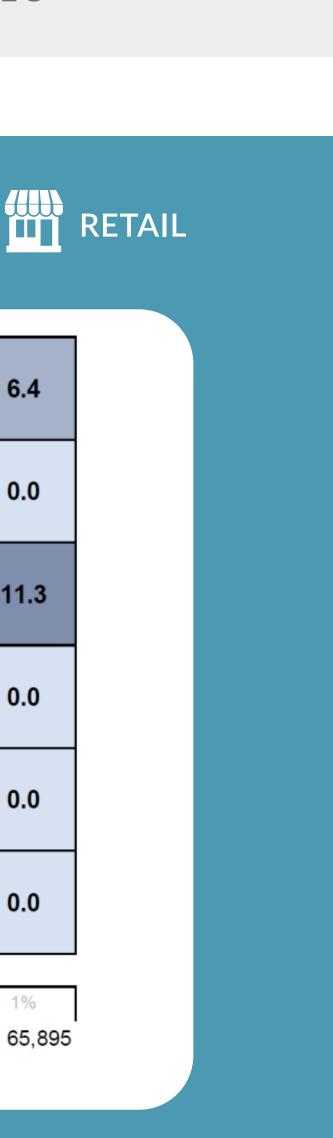
BI, automation and data engineering



**Data-driven** transformation

Customer analytics	Experimental methods	Stratus-1®
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#### Application: **Client-Frequency-Margin (CFM)** analysis



-	0.1 52%	0.1	0.2	0.1	1.1	0.0	0.0
Número di	<b>3.0</b>	0.3	1.1	2.2	2.7	0.0	0.0
Número de compras (promedio mensual)	<b>9.5</b> %22%	0.0	1.2	5.1	5.5	1.1	0.0
(promedic	47.0	0.0	0.0	4.7	22.9	13.6	11.3
o mensual)	124.2 %	0.0	0.0	0.0	8.0	12.2	0.0
	280.5	0.0	0.0	0.0	0.2	0.0	6.4





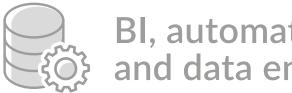
Machine learning models

Al-powered business applications

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Bl, automation and data engineering



Customer analytics	Experimental methods	Stratus-1®
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Machine learning models Al-powered business applications

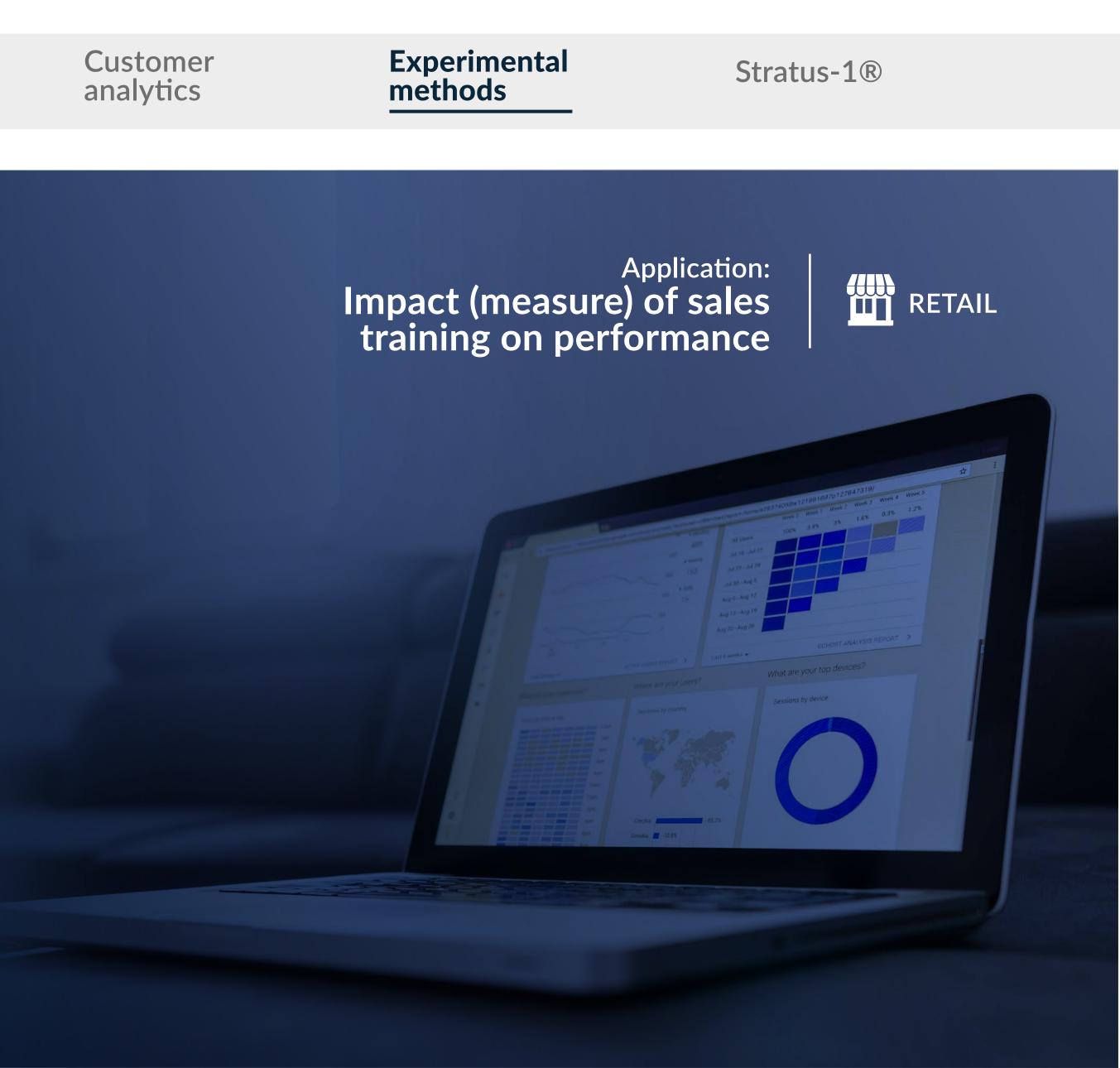
### Experimental methods: assessing impact

Widely applied to the international development sector, this methods are gradually gaining traction in private firms. They aim to measure the impact of a particular decision (marketing campaign) in a key outcome (like sales) by creating an experimental setting.

### **Applications include:**

- 1. Impact of a marketing campaign on sales
- 2. Effect of trainings in productivity
- 3. Impact of price changes on sales
- 4. Workplace modification effect on employee performance
- 5. Effect of changes in incentive schemes on employee performance









Machine learning models Al-powered business applications

### Stratus-1®: robust, structural forecasting

The challenge when forecasting sales is that they usually rely only on the firm's own data, reducing its predictive capability.

Out flagship forecasting model uses a structural approach, which means that it has multiple forecasting layers that work in a top-down dynamic.

#### The model has three layers:

- 1. Macroeconomic: general economic forecasts
- 2. Market: general industry-level forecasts
- 3. Firm: based on own market data

The firm-level model is entirely custom-made and trained based on the firm's data.



BI, automation and data engineering



Data-driven transformation

CustomerExperimentalStratus-1®analyticsmethods
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Top-down influence

Layer 1: Macroeconomic conditions Proprietary forecasts, access via API

Layer 2: industry dynamics Proprietary forecasts, access via API

Layer 3: firm performance Custom model, locally or cloud stored







Machine learning models

Al-powered business applications

### Stratus-1<sup>®</sup>: robust, structural forecasting How does it work?

We develop, train, and test a custom model for dynamic forecasts for your organization, deployed securely in your infrastructure.

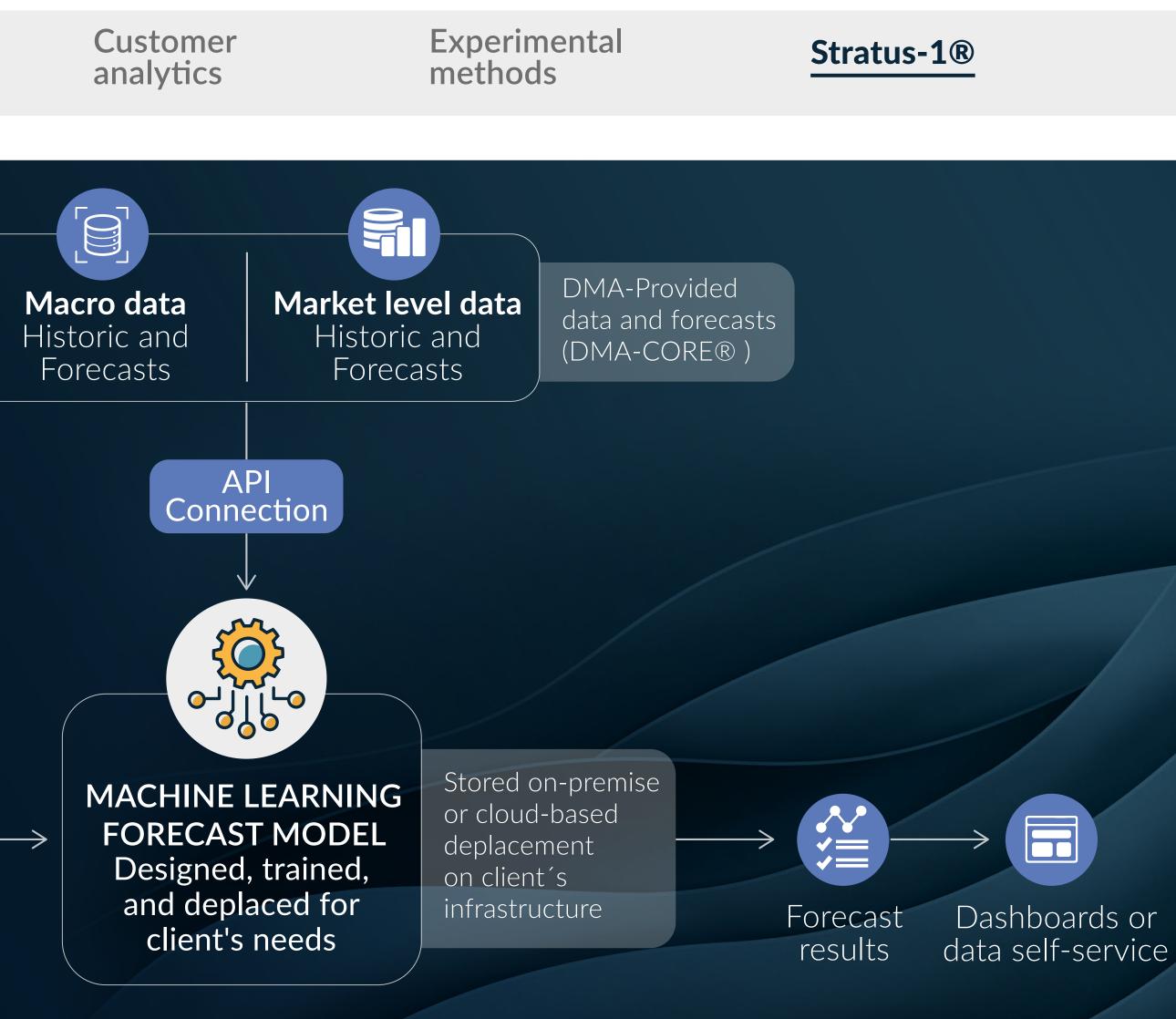
Your data never leaves your firm!





BI, automation and data engineering











Dashboards and visualizations

Low-code, no-code solutions

### Dashboards, both science and art

Our team has extensive experience building dashboards that incorporate both functionality and an attractive design. All dashboards are built based on their target audience and on a cohesive BI model previously defined.

Since a static dashboard make little or no sense, our engineering team specializes in creating optimal data pipelines to assure that the data is fresh and up-to-date.





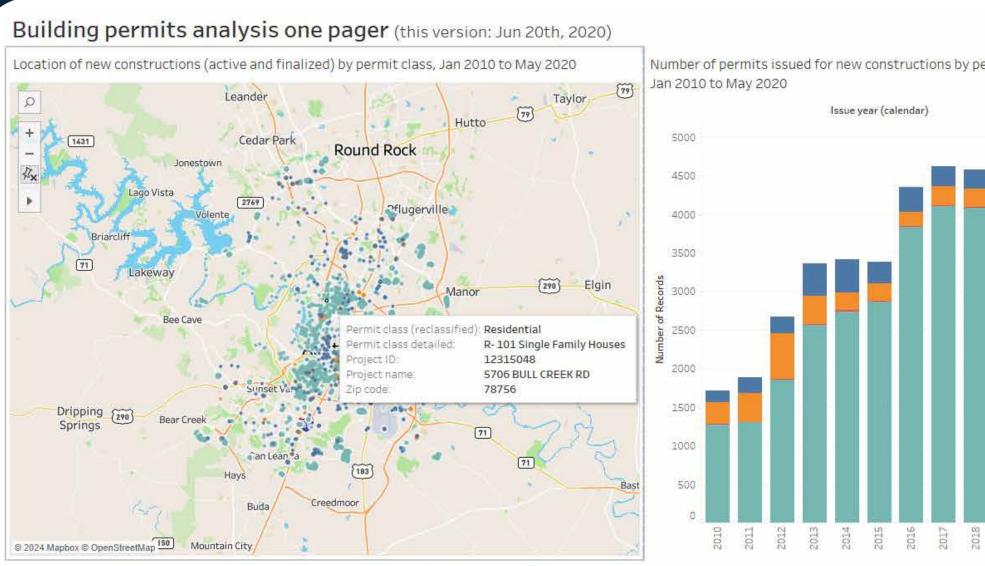
**Data-driven** transformation

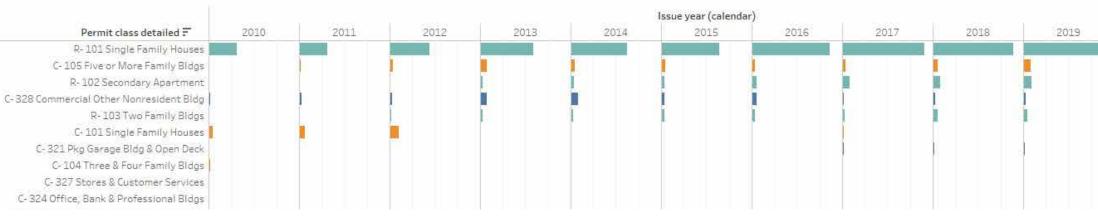
Data warehouse systems (DWH)

**Big-data** Lakehouse systems

#### Application: **Real estate market** monitor in Austin, TX

ssue year (calenda













Dashboards and visualizations

Low-code, no-code solutions

### Automate process with ease: low-code, no code

Enterprise solutions using **Microsoft Power Platform** (Power Apps, Power Automate, Power Pages, PowerBI). From automating process to building indexed repositories, these solutions also offer ease of access since they can be deployed on SharePoint intranets and incorporate a user governance structure.

### **Applications include:**

- 1. Process automation
- 2. Data collection integration
- 3. Information repositories
- 4. Billing systems
- 5. KPI monitoring systems





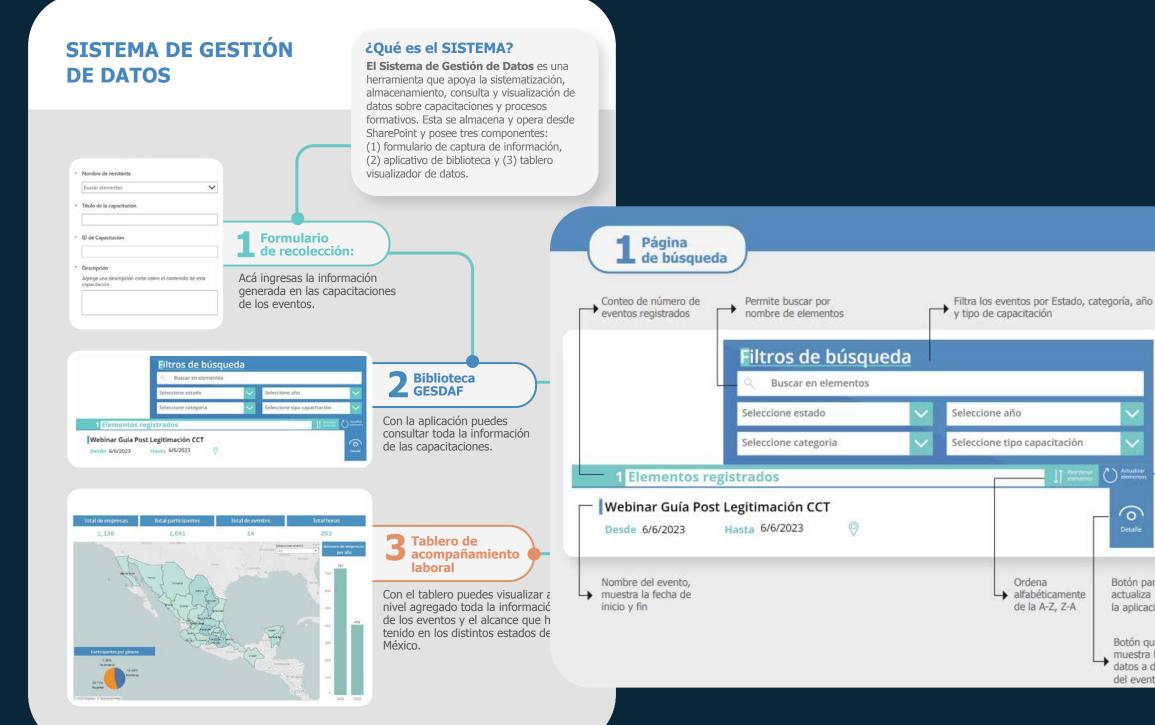
**Data-driven** transformation

#### Data warehouse systems (DWH)

#### **Big-data** Lakehouse systems

#### Application: Monitoring and evaluation, and data collection system





actualiza 🔶 la aplicación Botón que muestra los -> datos a detal del event





Dashboards and visualizations

Low-code, no-code solutions

**DWH and Big** Data Lakehouse: one-stop data repositories

Create unified data repositories and data marts to make the most out of your data. Applications include structure, semi-structured, or non-structured data for end-used consumption or to support machine learning or AI applications.



### **Automation and data** engineering services

Our services focus on creating data pipelines and automation instances ready for reporting, BI, modelling, or make the most out of AI









**Data-driven** transformation

#### Data warehouse systems (DWH)

**Big-data** Lakehouse systems

### To generate actionable insights or leverage Al You first need to make sense of your data! We can help.

Design, execute, supervise, and maintain

#### ETL (extract-transformload) processes

Structured, semi-structured, or non-structured data

Design, implement, and maintain **Data Warehouse** 

Systems (DWH) Optimized for data requests from users



From Billing, accounting, CRM, and other systems

#### Integration and automation of intelligence and reporting

Includes sensor data, APIs with relevant information, social media data, and other origins



For either existing or new business processes

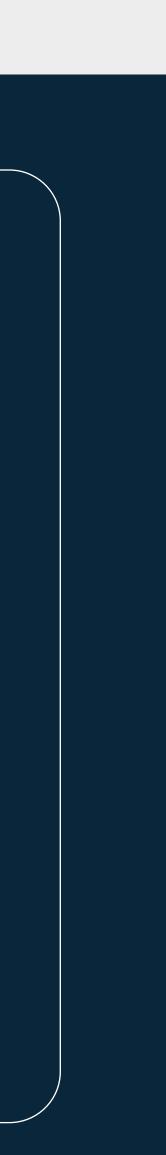
#### Migration or deployment on cloud-based systems

Allowing you to escalate and integrate cost-effectively



Design, implement, and maintain **Big Data Lakehouse** Systems

Allowing your organization to store structured, semi-structured, or non-structured data ready for data modelling, machine learning, and Al





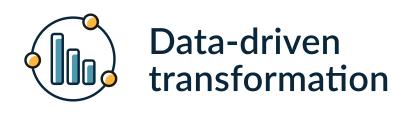


### Data-driven transformation: the primer your organization needs

As firms strive to adopt a data-driven culture, these services aim to help your organization adopt the best practices in evidence-based decision making. From evaluating your data's quality and readiness to hands-on trainings, we aim to give your organization a push in the right direction.



BI, automation and data engineering





#### **Collaborative tools**

Advisory and support to the widespread adoption and use of collaborative tools and cloud-based services.



#### Data audits and quality assurance

Assess if your data generation, transformation, storage, and analysis processes generate relevant and reliable data.



#### Hands-on trainings

Train your teams to use BI tools and develop analytics model by solving your firm's real-life business applications.



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## CONTACT US

- www.dmaanalytics.com
- dma@dmaanalytics.com
- Edificio Kinetika, oficina 8-11b Calle El Carmen y 17 Avenida Norte, Santa Tecla, La Libertad.
- +503 2523 7018

