



MAY 2023

Sales Forecasting

Business Cases for Data Science



Our *Team*

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Group H

Where do we start?



We start with the data

Regions

India	Russia
Brazil	Europe
Africa	Middle East
China	United States

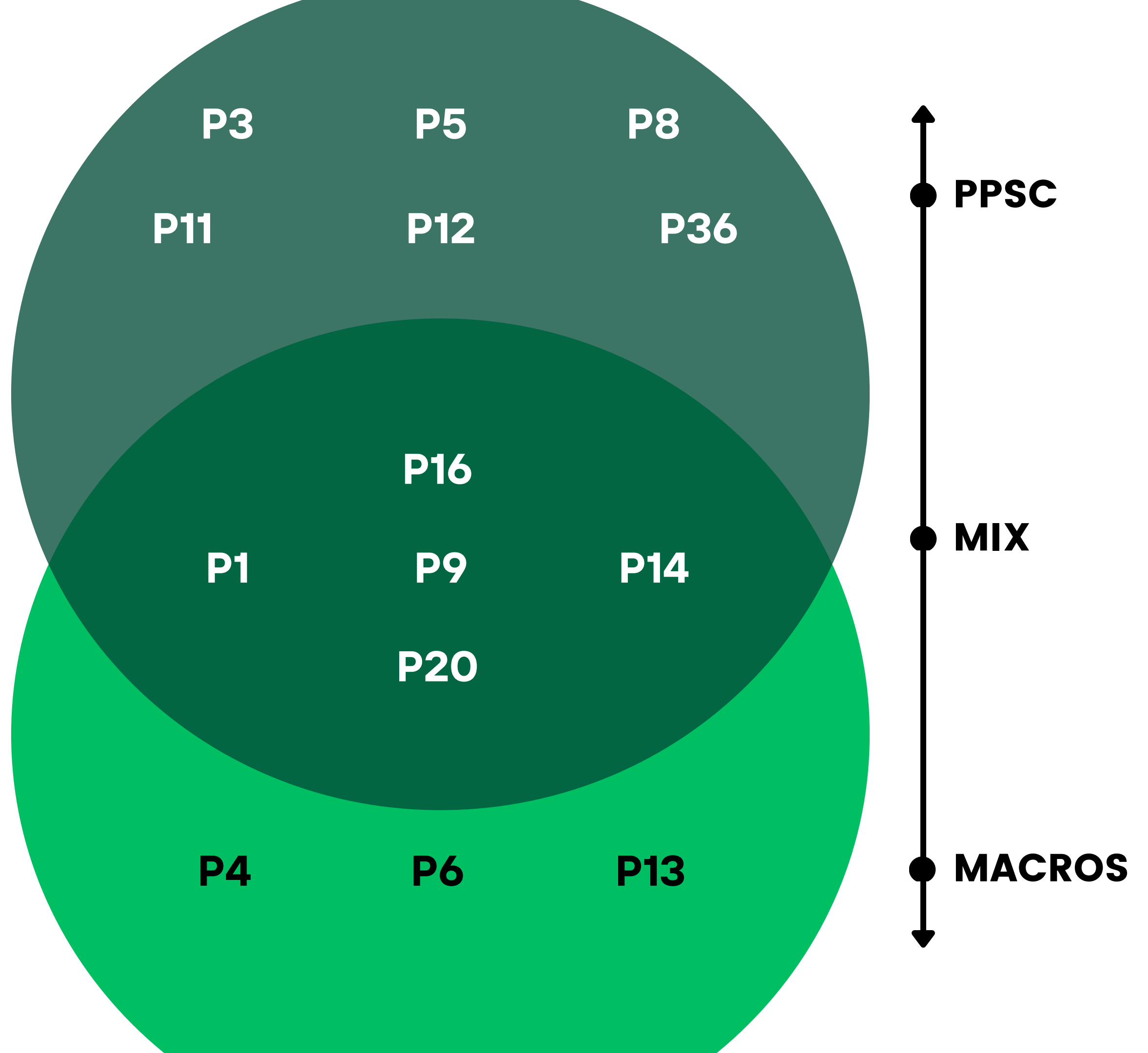
Sectors

Industrial
Real-Estate
Automotive
Public Sector
Manufacturing
Pharmaceutical
Sustainable Grids
Oil, Gas, and Chemicals

Macros

CPI & Interest Rates
General Business
Confidence
Foreign Exchange Rates

Product Types by Features



PPSC-driven Products



-16%
in Sales
(vs prior 10 months)

- **+5%** vs all-time sales mean
- PPSC Data:
 - Producers
 - Production
 - Shipments
 - Commodities
 - The grand majority are non-EU-related
- 2021 Suez Canal Obstruction, Inventory Shock, and consequent lag on sales.

Ambiguous Products



+13%
in Sales
(vs prior 10 months)

- -3.29% vs all-time sales mean
- PPSC Data:
 - Germany, UK, and US related.
 - Production & Producer Prices
- Macroeconomic Data:
 - United States Interest Rates & Manufacturing Business Confidence
 - Great Britain's General & Manufacturing Business Confidence

Macro-driven Products



+18%

in Sales

(vs prior 10 months)

- Post-Covid Era
 - 1.28% vs all-time sales mean
- Inflation Rise & Nominal Revenue Growth
- Catalyzers:
 - China's Manufacturing Business Confidence Lag 11
 - Saudi Arabia's CPI Lag 8

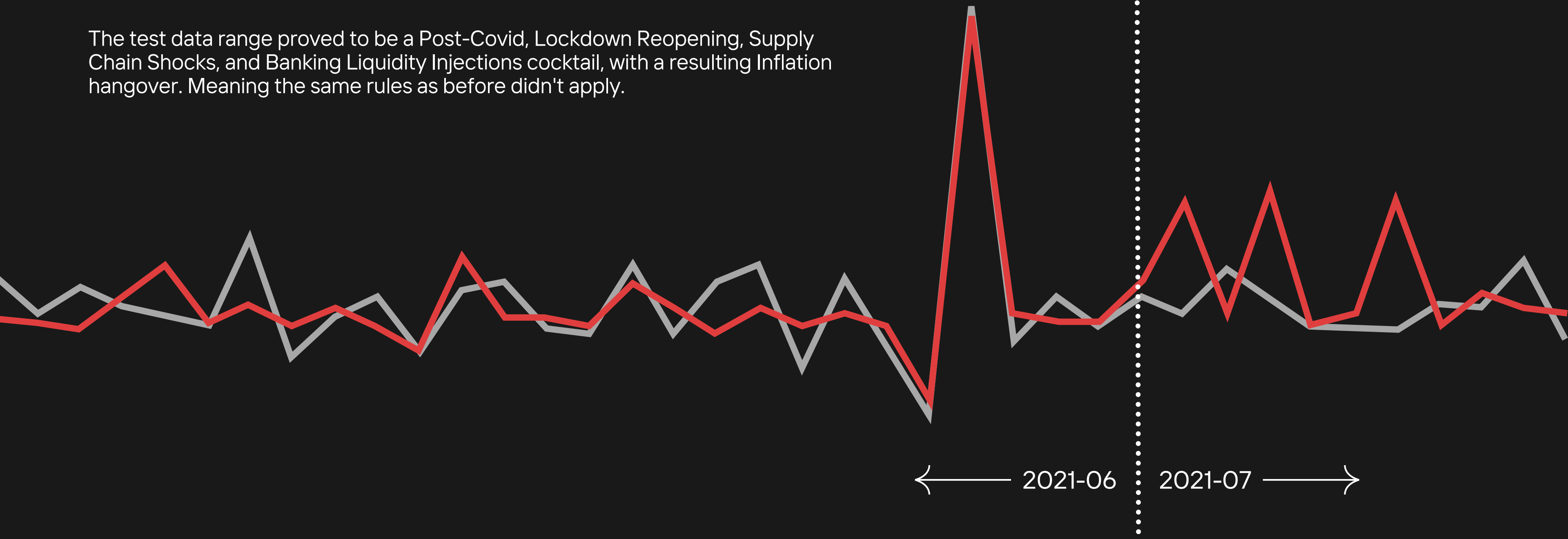
PPSC Data vs Total Sales

The test data range proved to be a Post-Covid, Lockdown Reopening, Supply Chain Shocks, and Banking Liquidity Injections cocktail, with a resulting Inflation hangover. Meaning the same rules as before didn't apply.

Training

Testing

— Actual
— Forecast



Macro Data vs Total Sales

"The goal of forecasting is not to predict the future but to tell you what you need to know to take meaningful action in the present"- Paul Saffo, Stanford U

Training

Testing

— Actual
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