

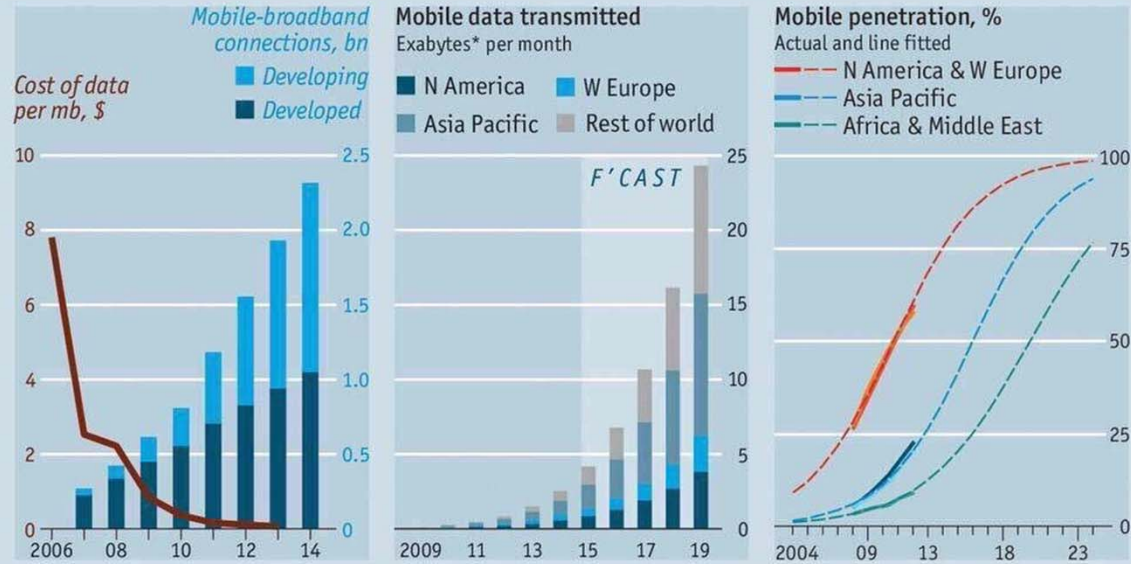


PDFMISE

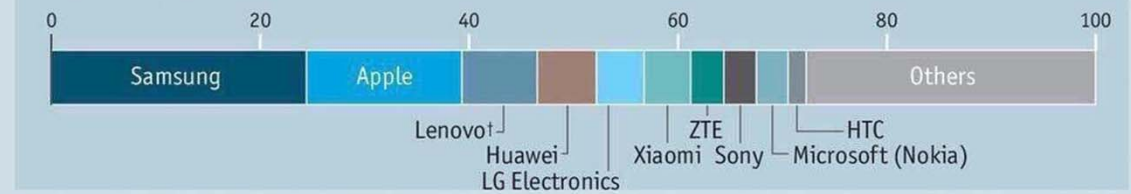
Joe Reisinger, co-founder

Transformation in action

2



Smartphone shipments by manufacturer, 2014, %



Sources: Asymco; Boston Consulting Group; Cisco; IDC; ITU

*1 exabyte=10¹⁸ bytes †Including Motorola



How Premise Works

The Premise Network

Premise connects **20,000 data contributors** in **20+ countries** engaged in verifiable real-world measurement tasks, earning micropayments in local currency.



How Premise Works

What Premise Measures

Instrumenting the physical world to understand evolving economic and human development trends

ECONOMETRICS



Inflation
Market trends
Sub-national price trends

RESOURCE SECURITY



Food
Energy
Water

INFRASTRUCTURE



Transportation
Electrification
Financial access

PUBLIC POLICY

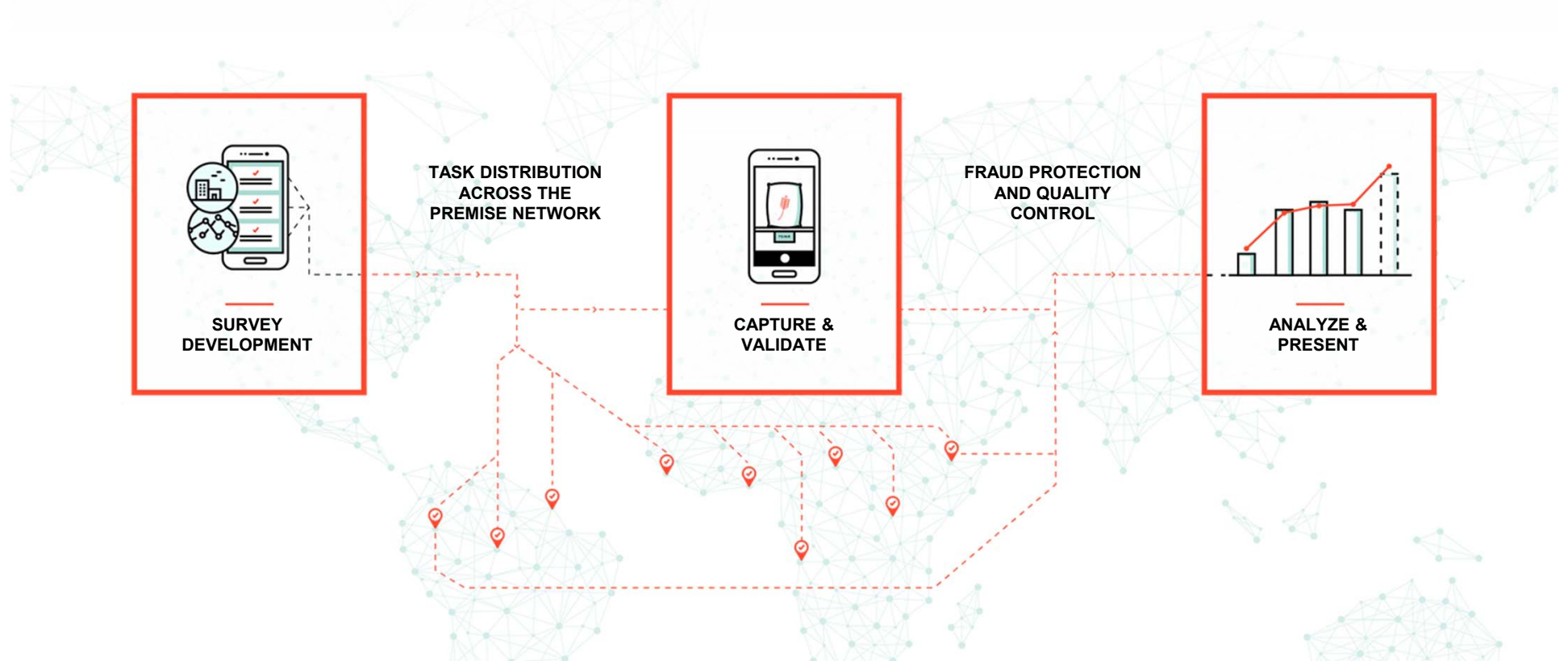


Public health
Tax implementations
Gender-based violence

How Premise Works

The Premise Platform

An elastic real-world knowledge collection engine



How Premise Works

Micro Identification → Meso and Macro Insight

The platform scales by deploying **two** modes of surveys -- discovery and revisits -- across a programmable geo-spatial **sampling frame** that identifies & aggregates micro phenomena leading to meso and macro insights

GLOBAL TO SUB-CITY
SAMPLING FRAMES



SURVEY TYPES:
DISCOVERY + REVISITS

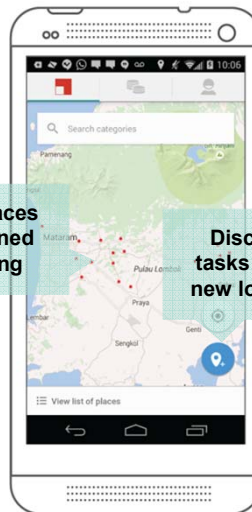


REPRESENTATIVE
SAMPLING STATISTICS

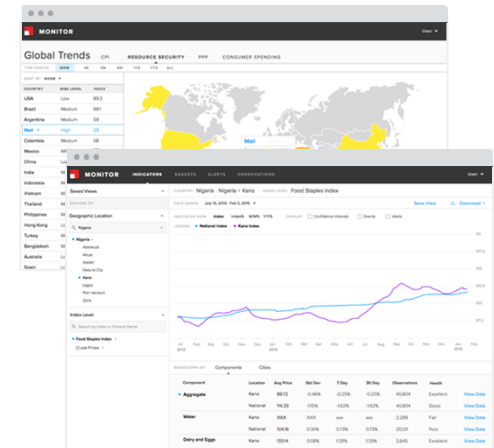
20+ countries, 100+ Cities



Revisit places
for sustained
monitoring



Discovery
tasks to map
new locations



Select Customers



BILL & MELINDA
GATES *foundation*



Independent Director

Larry Summers

President Emeritus & Charles W. Eliot
University Professor of Harvard
University

Advisory Board

Raj Shah

Former Head, USAID

Hal Varian

Chief Economist, Google

Investors

Valor Equity Partners

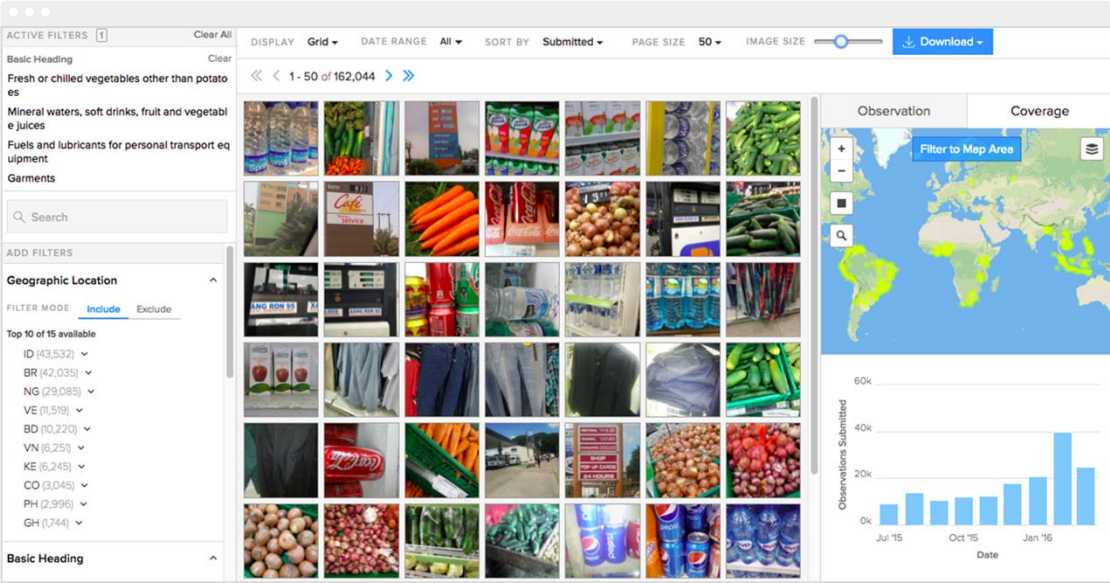
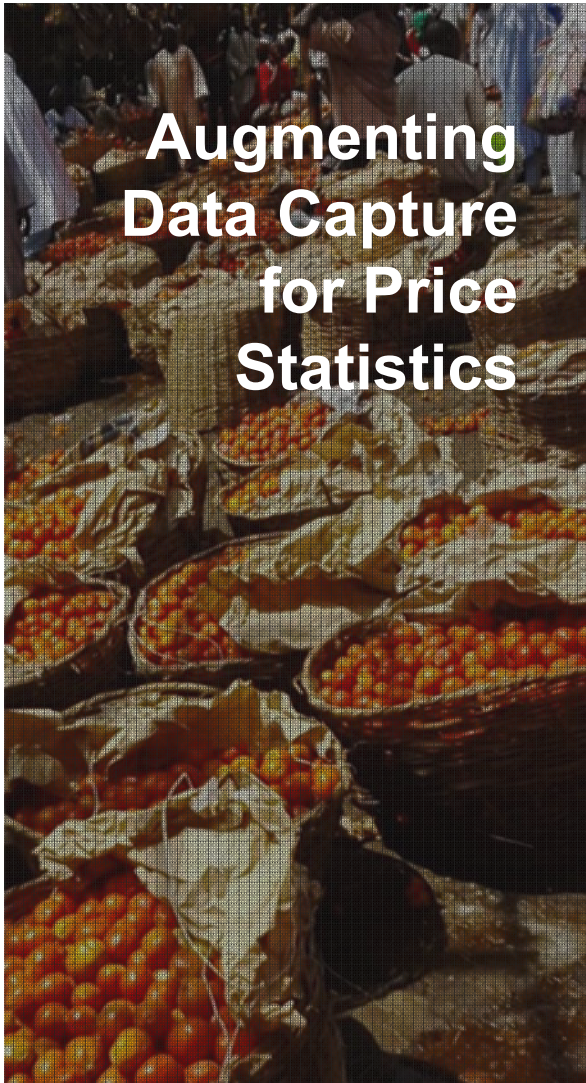
Social + Capital

Alan Krueger

Professor, Princeton University

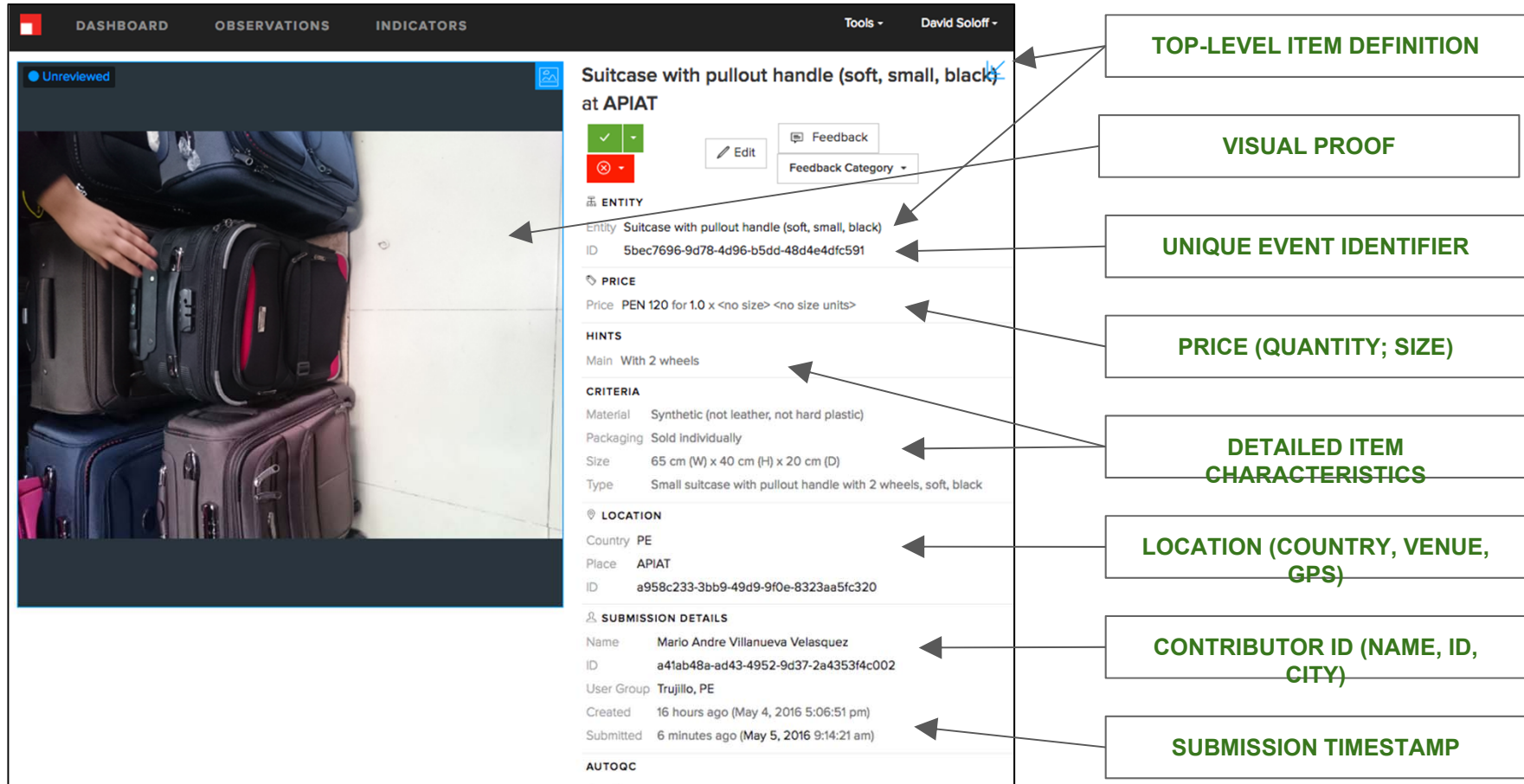
Google Ventures

Andreessen Horowitz



Price data as depicted in Premise's dashboard customized for The World Bank.

Rich Attributes: quality, location, frequency



The screenshot shows a data entry form for a suitcase. The interface includes a navigation bar (Dashboard, Observations, Indicators), a user profile (David Soloff), and a list of items. The selected item is a 'Suitcase with pullout handle (soft, small, black) at APIAT'. The form contains several sections with specific attributes:

- Entity:** Suitcase with pullout handle (soft, small, black)
- ID:** 5bec7696-9d78-4d96-b5dd-48d4e4dfc591
- Price:** PEN 120 for 1.0 x <no size> <no size units>
- Hints:** Main With 2 wheels
- Criteria:**
 - Material: Synthetic (not leather, not hard plastic)
 - Packaging: Sold individually
 - Size: 65 cm (W) x 40 cm (H) x 20 cm (D)
 - Type: Small suitcase with pullout handle with 2 wheels, soft, black
- Location:**
 - Country: PE
 - Place: APIAT
 - ID: a958c233-3bb9-49d9-9f0e-8323aa5fc320
- Submission Details:**
 - Name: Mario Andre Villanueva Velasquez
 - ID: a41ab48a-ad43-4952-9d37-2a4353f4c002
 - User Group: Trujillo, PE
 - Created: 16 hours ago (May 4, 2016 5:06:51 pm)
 - Submitted: 6 minutes ago (May 5, 2016 9:14:21 am)

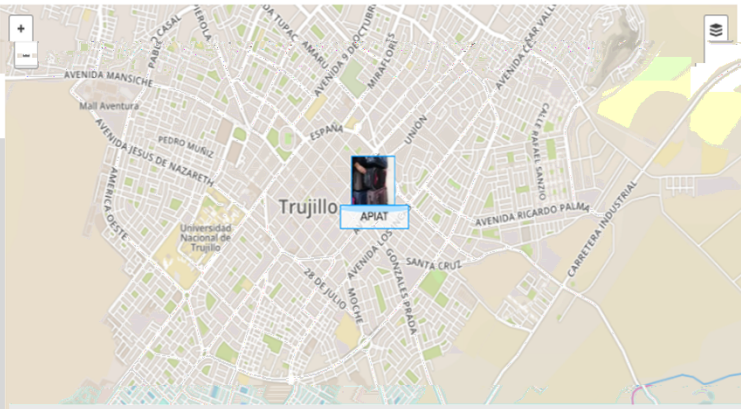
Callouts on the right side of the image identify the following attributes:

- TOP-LEVEL ITEM DEFINITION:** Points to the entity name 'Suitcase with pullout handle (soft, small, black) at APIAT'.
- VISUAL PROOF:** Points to the photograph of the suitcase.
- UNIQUE EVENT IDENTIFIER:** Points to the entity ID '5bec7696-9d78-4d96-b5dd-48d4e4dfc591'.
- PRICE (QUANTITY; SIZE):** Points to the price field 'PEN 120 for 1.0 x <no size> <no size units>'.
- DETAILED ITEM CHARACTERISTICS:** Points to the 'CRITERIA' section, specifically the 'Type' attribute.
- LOCATION (COUNTRY, VENUE, GPS):** Points to the 'LOCATION' section, specifically the 'Place' attribute 'APIAT'.
- CONTRIBUTOR ID (NAME, ID, CITY):** Points to the 'SUBMISSION DETAILS' section, specifically the 'Name' and 'ID' attributes.
- SUBMISSION TIMESTAMP:** Points to the 'Submitted' attribute '6 minutes ago (May 5, 2016 9:14:21 am)'.

Rich venue coordinate and attribute data

DASHBOARD OBSERVATIONS INDICATORS Tools - David Soloff -

Location



Observation Coordinates
 C4110262f353f600e70f9326960429554e


Place
 Distance: 27m

Raw Data

```

logged_action_event_id: 409882218,
user_uid: "a41ab48a-ad43-4952-9d37-2a4353f4c002",
submitted: "2016-05-05T13:14:21.833Z",
user_name: "Mario Andre Villanueva Velasquez",
user_group: "Trujillo, PE",
uid: "5efb241c-8008-4d64-98f5-1130820c54be",
started: "2016-05-04T21:01:51.525Z"

```


 image: <https://marketresearch-pricespotter-images.s3.amazonaws.com/5efb241c-8008-4d64-98f5-1130820c54be>,
 channel: "premise-app",

DASHBOARD OBSERVATIONS INDICATORS Tools - David Soloff -

Raw Data

```

logged_action_event_id: 409882218,
user_uid: "a41ab48a-ad43-4952-9d37-2a4353f4c002",
submitted: "2016-05-05T13:14:21.833Z",
user_name: "Mario Andre Villanueva Velasquez",
user_group: "Trujillo, PE",
uid: "5efb241c-8008-4d64-98f5-1130820c54be",
started: "2016-05-04T21:01:51.525Z",
created: "2016-05-04T21:06:51.582Z",
country: "PE",
lang: "es",
app_version: "1.12.10",
campaign_id: "vi.PE.TMO.ICP.v2",
entity_uid: "5bec7696-9d78-4d96-b5d6-48d4e4dfc591",
child_uids: [],
points: 6000,
image: "https://marketresearch-pricespotter-images.s3.amazonaws.com/5efb241c-8008-4d64-98f5-1130820c54be",
channel: "premise-app",
source: "offline",
status: "unreviewed",
product_name: "json",
attributes: [
  {name: "brand", value: null, output: true},
  {name: "price", value: "120.0", type: "NUMBER_WITH_UNITS", raw_value: "120"},
  {name: "quantity", value: "1.0", type: "NUMBER", raw_value: "1"},
  {name: "photo", value: "storage/file:///android/data/com.premise.v1/files/images/premise_20160504_160438920.jpg", type: "PHOTO"},
  {name: "place", value: "APIAT", type: "PLACE", output: true},
  {name: "length", value: "40.0", type: "NUMBER_WITH_UNITS", raw_value: "40"},
  {name: "suitcase_wheel", value: "2", type: "RADIO", output: true},
  {name: "suitcase_handle", value: "yes", type: "RADIO", output: true},
  {name: "height", value: "65.0", type: "NUMBER_WITH_UNITS", raw_value: "65"},
  {name: "width", value: "20.0", type: "NUMBER_WITH_UNITS", raw_value: "20"},
  {name: "accuracy", value: "14.0", type: "NUMBER_WITH_UNITS", raw_value: "14"},
  {name: "altitude", value: "93.0", type: "NUMBER_WITH_UNITS", raw_value: "93"},
  {name: "time", value: "146239552015", type: "TEXT", raw_value: "146239552015"},
  {name: "time_ms", value: "146239552015", type: "TEXT", raw_value: "146239552015"},
  {name: "lat", value: "-8.1117798", type: "NUMBER_WITH_UNITS", raw_value: "-8.1117798"},
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  {name: "entity_uid", value: "5bec7696-9d78-4d96-b5d6-48d4e4dfc591", type: "TEXT", raw_value: "5bec7696-9d78-4d96-b5d6-48d4e4dfc591"},
  {name: "campaign_id", value: "vi.PE.TMO.ICP.v2", type: "TEXT", raw_value: "vi.PE.TMO.ICP.v2"},
  {name: "generation", value: "20160504-160715279", type: "TEXT", raw_value: "20160504-160715279"},
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  {name: "restrictions", value: "[]", type: "LIST", raw_value: "[]"},
  {name: "time_window", value: "[]", type: "LIST", raw_value: "[]"},
  {name: "polygons", value: "[]", type: "LIST", raw_value: "[]"},
  {name: "capture_properties", value: "[]", type: "LIST", raw_value: "[]"},
  {name: "actual_capture", value: "0", type: "NUMBER_WITH_UNITS", raw_value: "0"},
  {name: "unique_by_referer", value: "false", type: "BOOLEAN_WITH_UNITS", raw_value: "false"},
  {name: "bonus_points", value: "14500", type: "NUMBER_WITH_UNITS", raw_value: "14500"},
  {name: "pointa", value: "16000", type: "NUMBER_WITH_UNITS", raw_value: "16000"},
  {name: "relevance", value: "10.0", type: "NUMBER_WITH_UNITS", raw_value: "10.0"},
  {name: "ui_flag", value: "true", type: "BOOLEAN_WITH_UNITS", raw_value: "true"},
  {name: "date_header", value: "1462450624881", type: "TEXT", raw_value: "1462450624881"},
  {name: "started", value: "146239552015", type: "TEXT", raw_value: "146239552015"},
  {name: "parent_uid", value: null, type: "TEXT", raw_value: null}
]

```

Survey coverage

Entities	ICP Entity
Electricity	110451101
Utility Gas Supply	110452103
Water Supply With Sewage	110441102
Water Supply Without Sewage	110441101
Meal at a Sit Down Restaurant	
Meal at a casual dining Restaurant	
Meal at a Fast Food Restauration	
Consultation: general medical practitioner/primary care physician	110621101
Consultation: eye specialist (ophthalmologist)	110621102
Consultation: urologist	110621103
Consultation: gynecologist	110621104
Consultation: pediatrician	110621105
Dentist: extraction of a tooth, for adult	110622101
Dentist: filling of molar tooth	110622102
Blood test: complete blood count (hemogram)	110623101
Urine test	110623102
Mammogram	110623103
Thorax X-ray photograph, for adult	110623105
Men's coat, WKB-M	110312131
Men's suit, wool, WKB-M	110312101a
Men's trousers, cotton/polyester, WKB-L	110312104
Men's blue jeans, WKB-L	110312107
Men's shirt, WKB-M	110312103
Men's pullover (sweater), wool/polyester, WKB-M	110312108
Men's T-shirt, WKB-L	110312106
Men's boxer briefs, WKB-L	110312132
Men's ankle socks, WKB-L	110312105a
Women's blazer, cotton, WKB-M	110312133

NIGERIA PHASE 1

1105311 - Refrigerator-freezer, low, 165-190 Liters

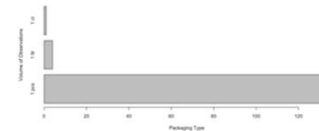
OBSERVATION COUNT
143

PACKAGING DISTRIBUTION

REPRESENTATIVE IMAGES

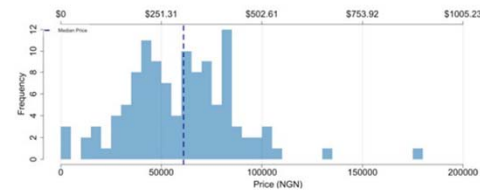
NUMBER OF CITIES
6

AS OF
July 24, 2015

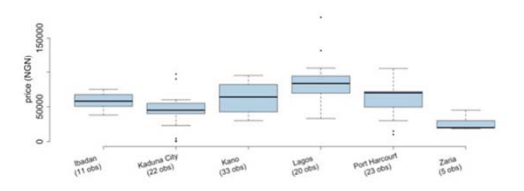


MOST PREVALENT UNIT SIZE : 1 PCS

OVERALL PRICE DISTRIBUTION



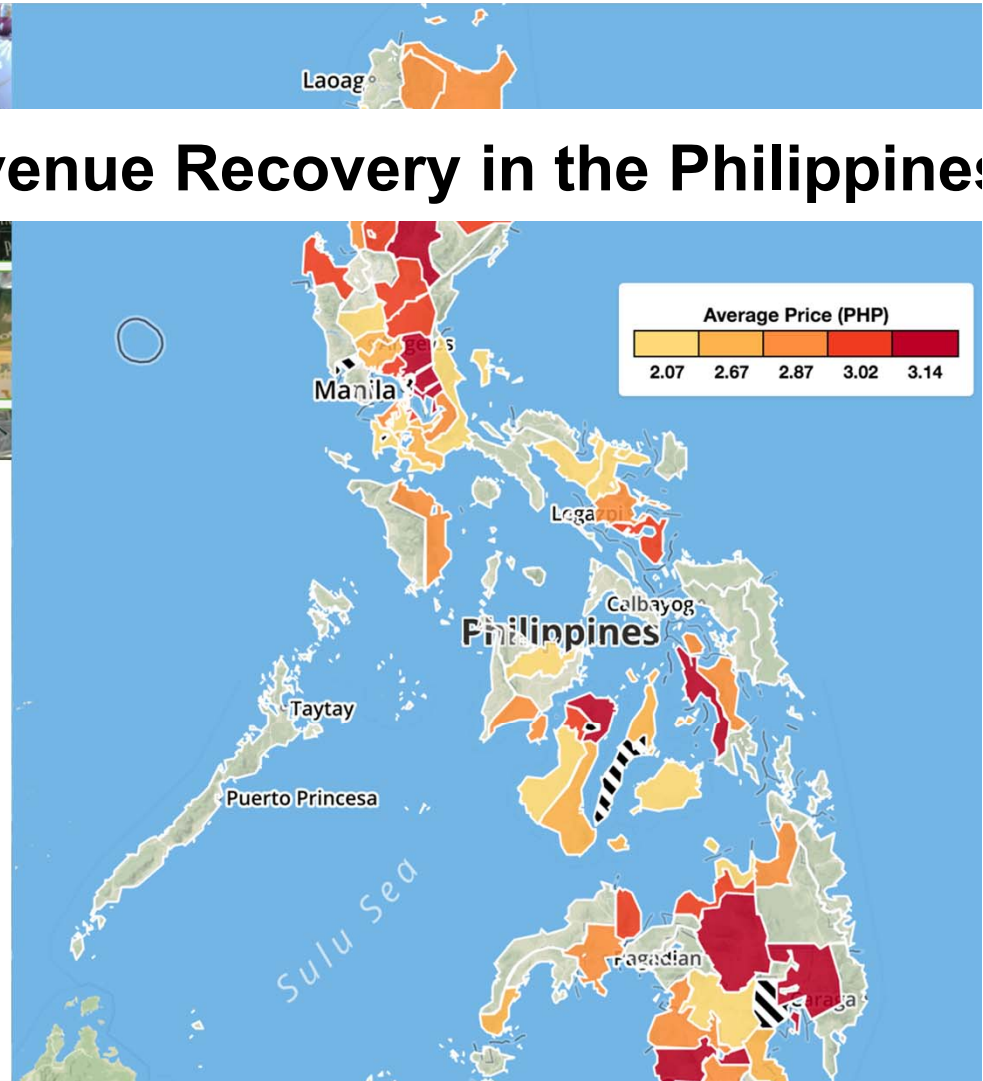
PRICE DISTRIBUTION BY CITY



	ALL	LAGOS	KADUNA CITY	ZARIA	IBADAN	KANO	PORT HARCOURT	SOKOTO
# OF OBS	136	20	24	5	11	47	29	NA
25TH (NGN)	44375	72750	40000	20000	50500	42500	50000	NA
MEAN (NGN)	61912	82118	44731	26700	58182	65968	63110	NA
MEDIAN (NGN)	63000	83500	45000	20000	58000	64000	70000	NA
MODE (NGN)	45000	33000	45000	20000	70000	64000	70000	NA
75 (NGN)	79625	93300	55000	30000	67500	83000	72000	NA
STD/MEAN	0.43	0.43	0.51	0.42	0.2	0.34	0.35	NA

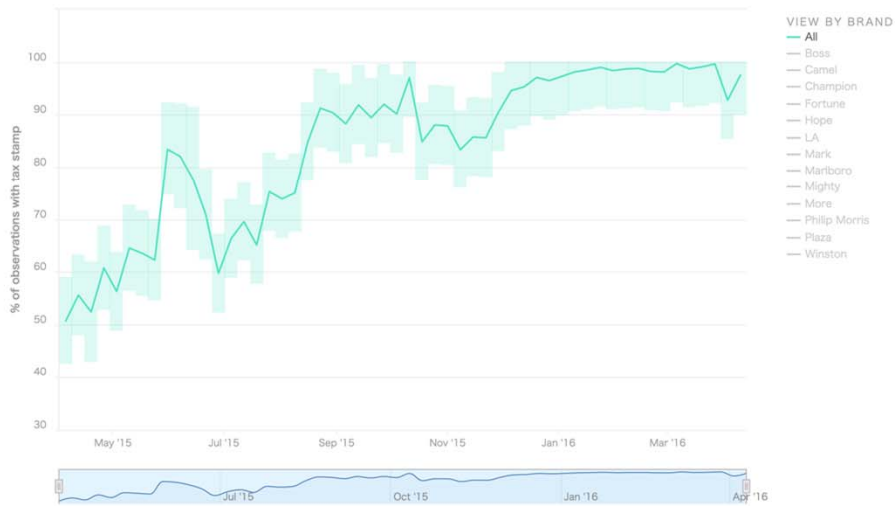


Revenue Recovery in the Philippines



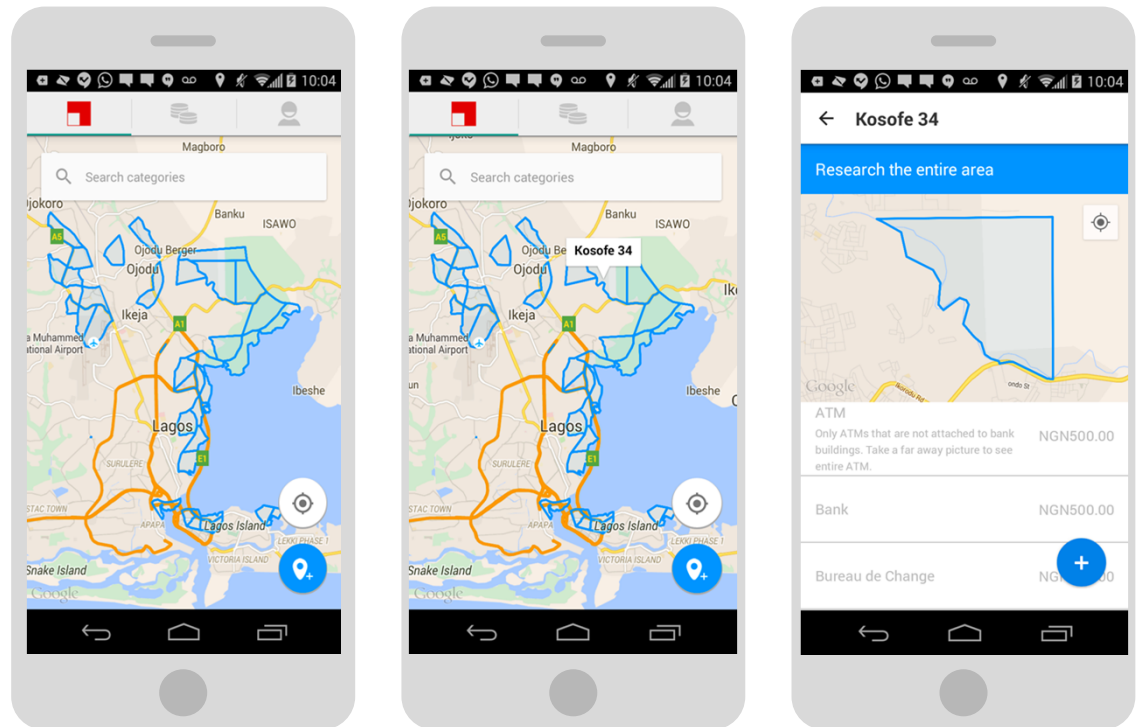
Weekly Tax Stamp Presence


Weekly presence of the tax stamp on cigarette packages. Boxes represent the standard deviation of the binomial distribution.



Adaptive sampling & rapid-response

- Monitor survey error and response coverage in real-time
- Overall data-collection effort is configurable: Adaptively tune survey instrument and task volume, and allocate discovery tasks in response to analytics
- Enables “rapid-response” surveys tuned to specific policy needs as well as incremental improvement of





Designing a Program of Statistical Support with U.S. Department of Commerce



Premise to provide data-gathering infrastructure adaptive sampling and survey approaches for US RPPs templated on work with World Bank ICP

Phase 1: Would launch in four metro areas to ensure validity of approach

- Staff with a team of Premise data scientists and engineers dedicated specifically to this program
- Build networks of data collectors expressly for the program

Timeline: Scoping in June/July 2016; Program launch: Q1 2017



 **PREMISE**

