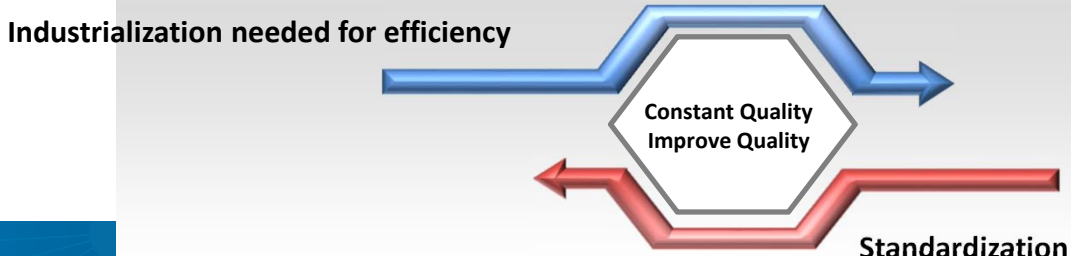
GOBIERNO DE COLOMBIA | MINTIC | DANE INFORMACIÓN ESTRATÉGICA

BPS Strategy for Digital Transformation

A Journey to unlock the value of Big Data

Setia Pramana

CHALLENGES FACED



THE WORLD IS CHANGING

Big Data

90%

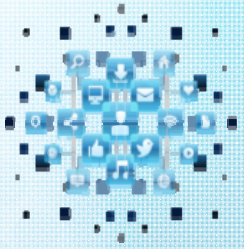
of the data created in the last two years alone.

Mobile

1billion (plus)

(plus) smart devices shipped in 2013 alone.

Social



81%

of customers depend on social sites for purchasing advice.

Cloud

62%

of total workloads will be in the cloud by 2016.

Internet of Things

50billion

devices connected to the internet by 2020.

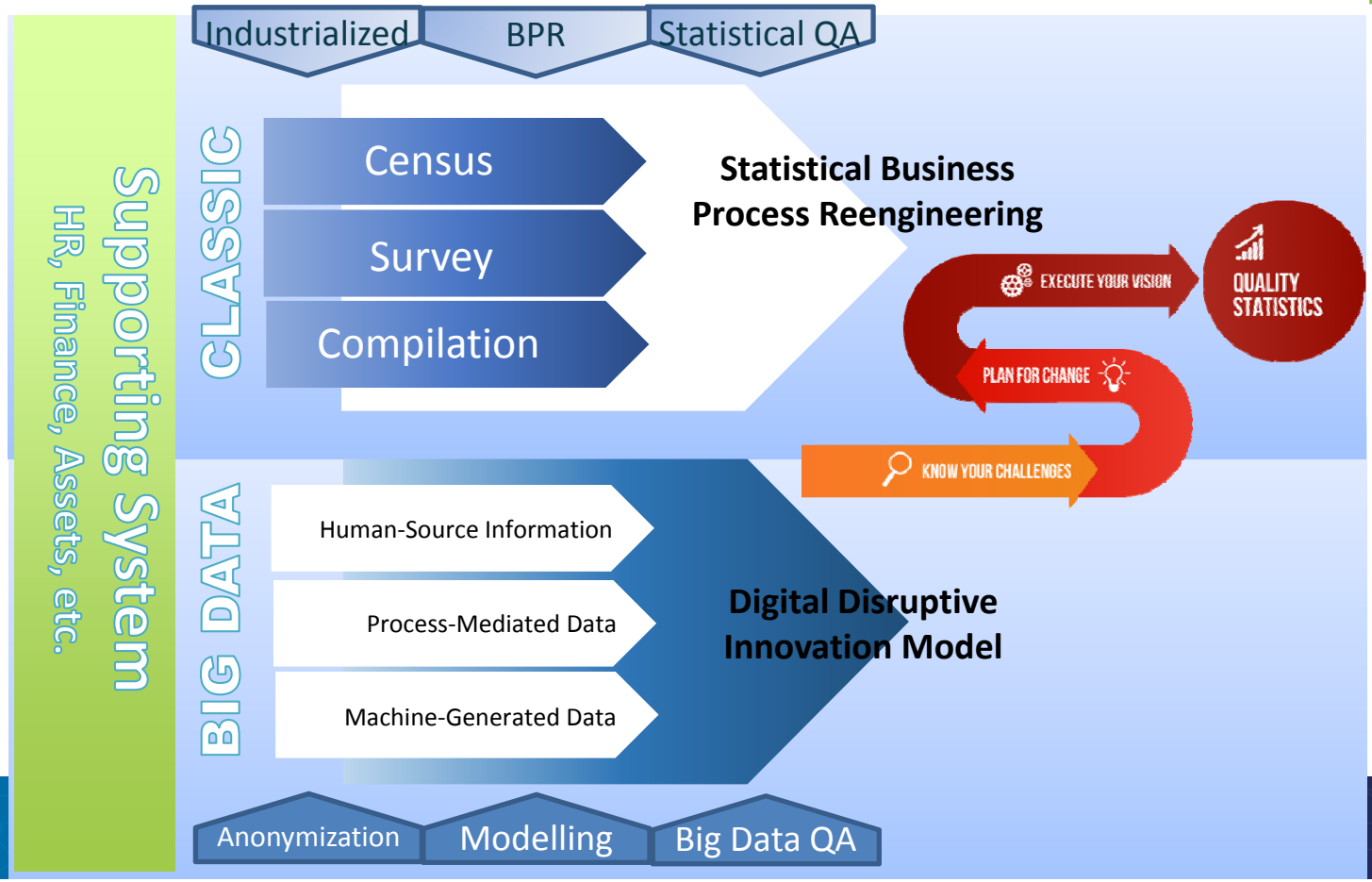
API Economy

Global m-commerce sales were

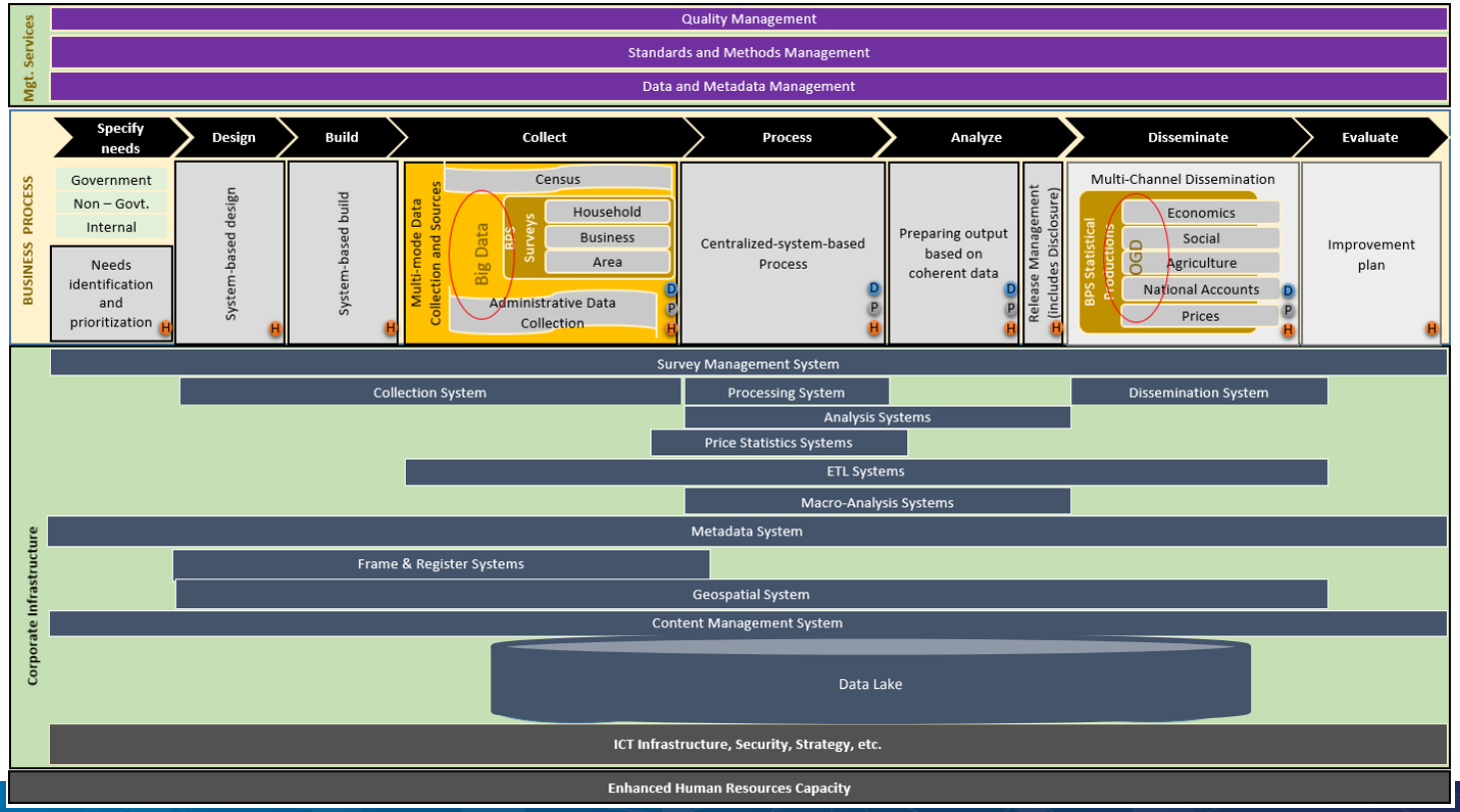
85billion

in 2013 and forecast to rise to $120 billion by 2015 and an estimated $1 trillion by 2017

STRATEGY FOR MODERNIZATION OF NSO



STATISTICAL BUSINESS FRAMEWORK & ARCHITECTURE



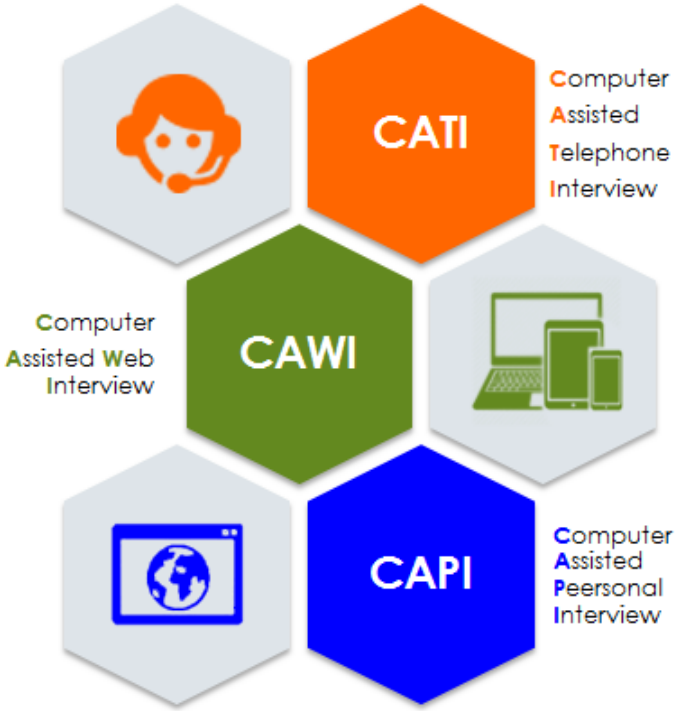
BADAN PUSAT STATISTIK

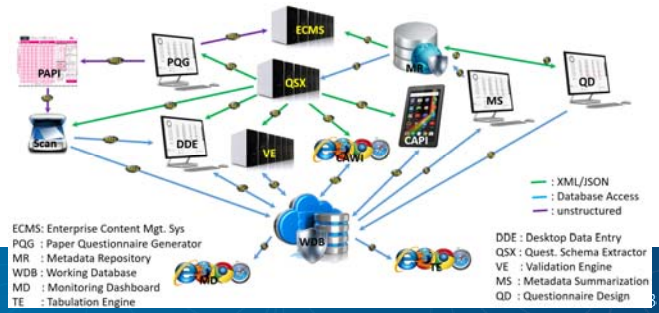
Pelopor
Data Statistik
Terpercaya
Untuk Semua

Approach I
COMPUTER ASSISTED INTERVIEWING

MULTIMODE DATA COLLECTION PLATFORM

Paperless Data Collection

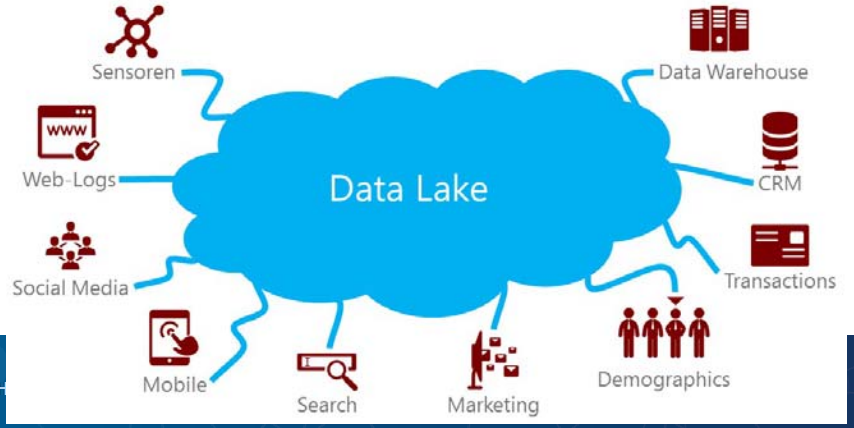




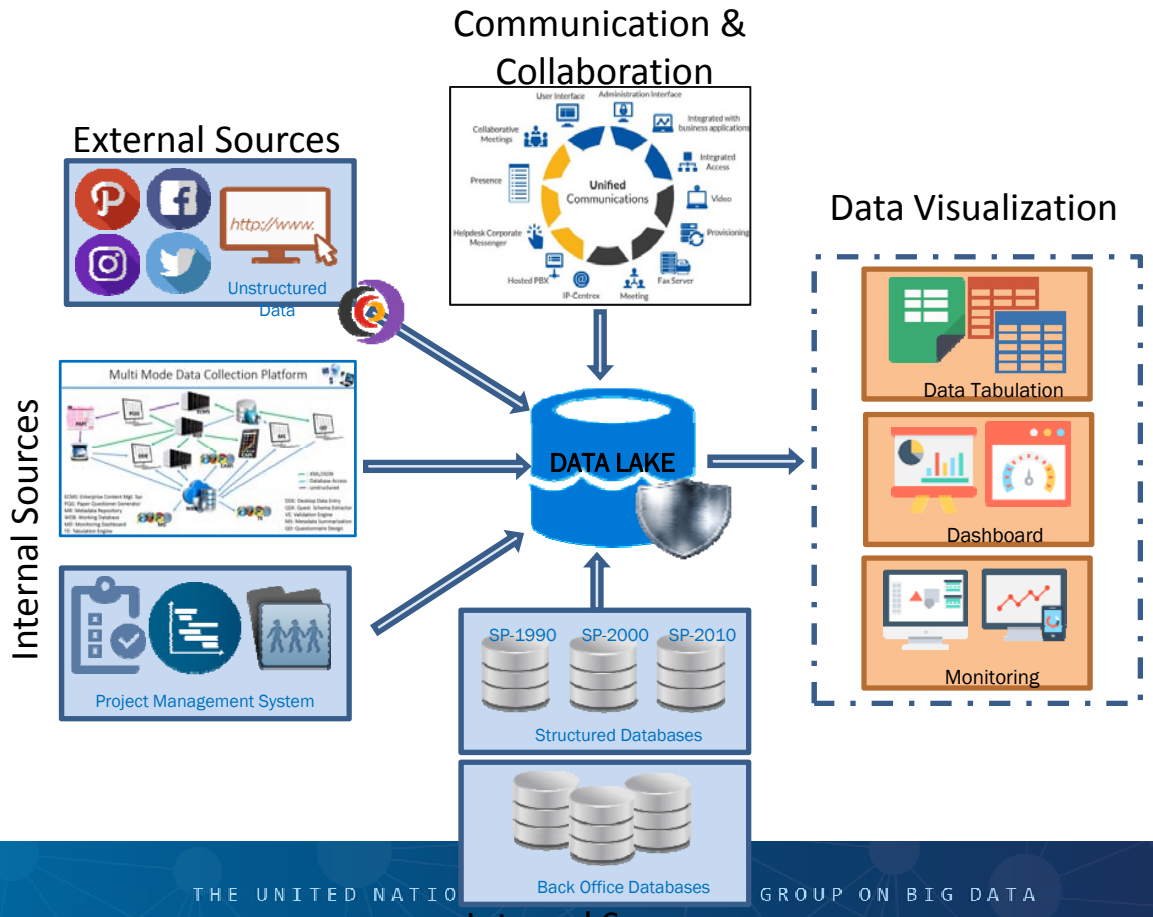
BADAN PUSAT STATISTIK

Pelopor
Data Statistik
Terpercaya
Untuk Semua

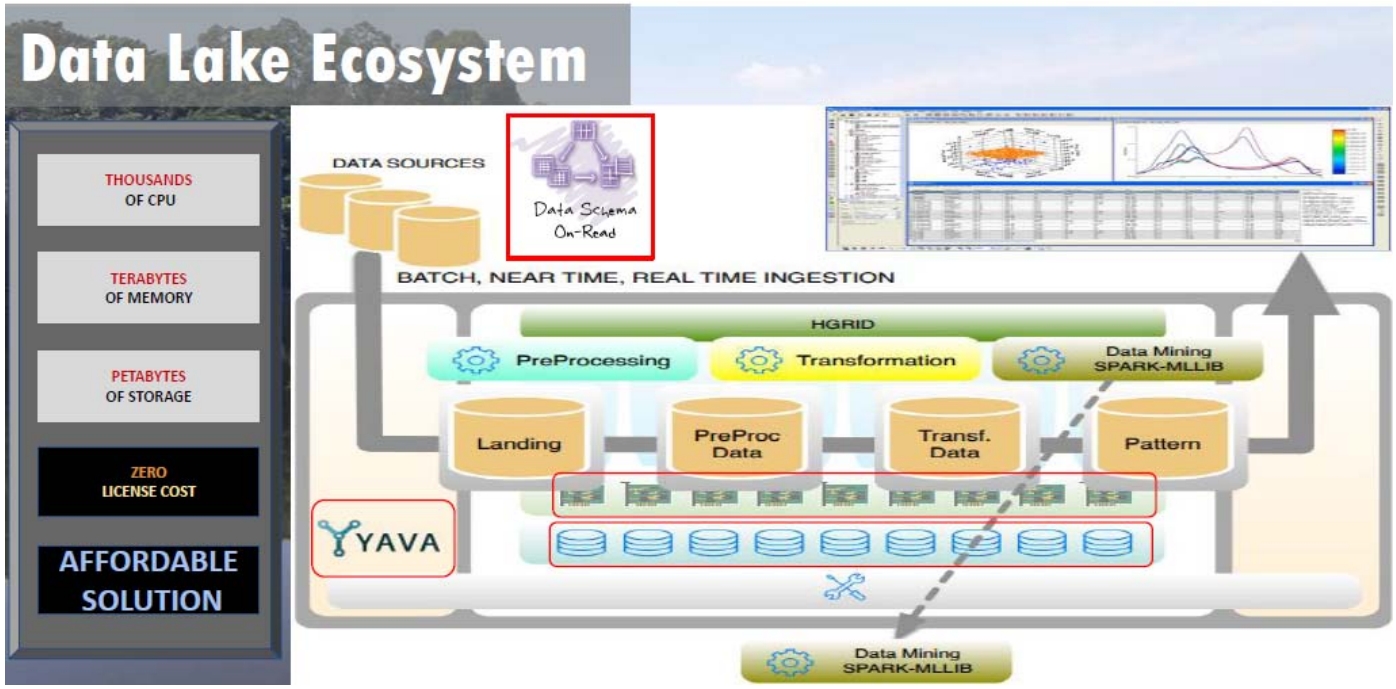
Approach II : BIG DATA
ENTERPRISE DATA LAKE



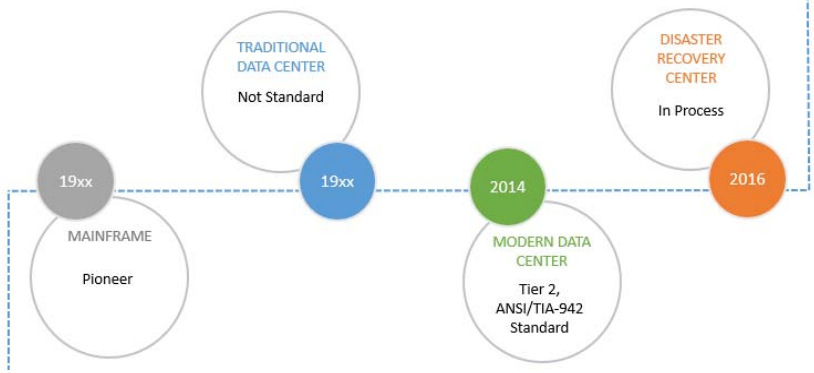
ENTERPRISE DATA LAKE FOR BIG DATA ANALYTICS

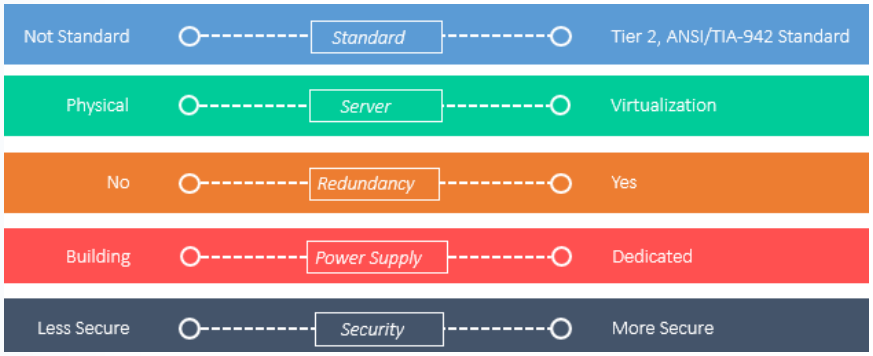


DATA LAKE ECOSYSTEM FOR BIG DATA ANALYTICS



DATA CENTER – DISASTER RECOVERY CENTER





Traditional vs Modern DC

BADAN PUSAT STATISTIK

Pelopor
Data Statistik
Terpercaya
Untuk Semua

Approach III : DATA DRIVEN DECISION MAKING

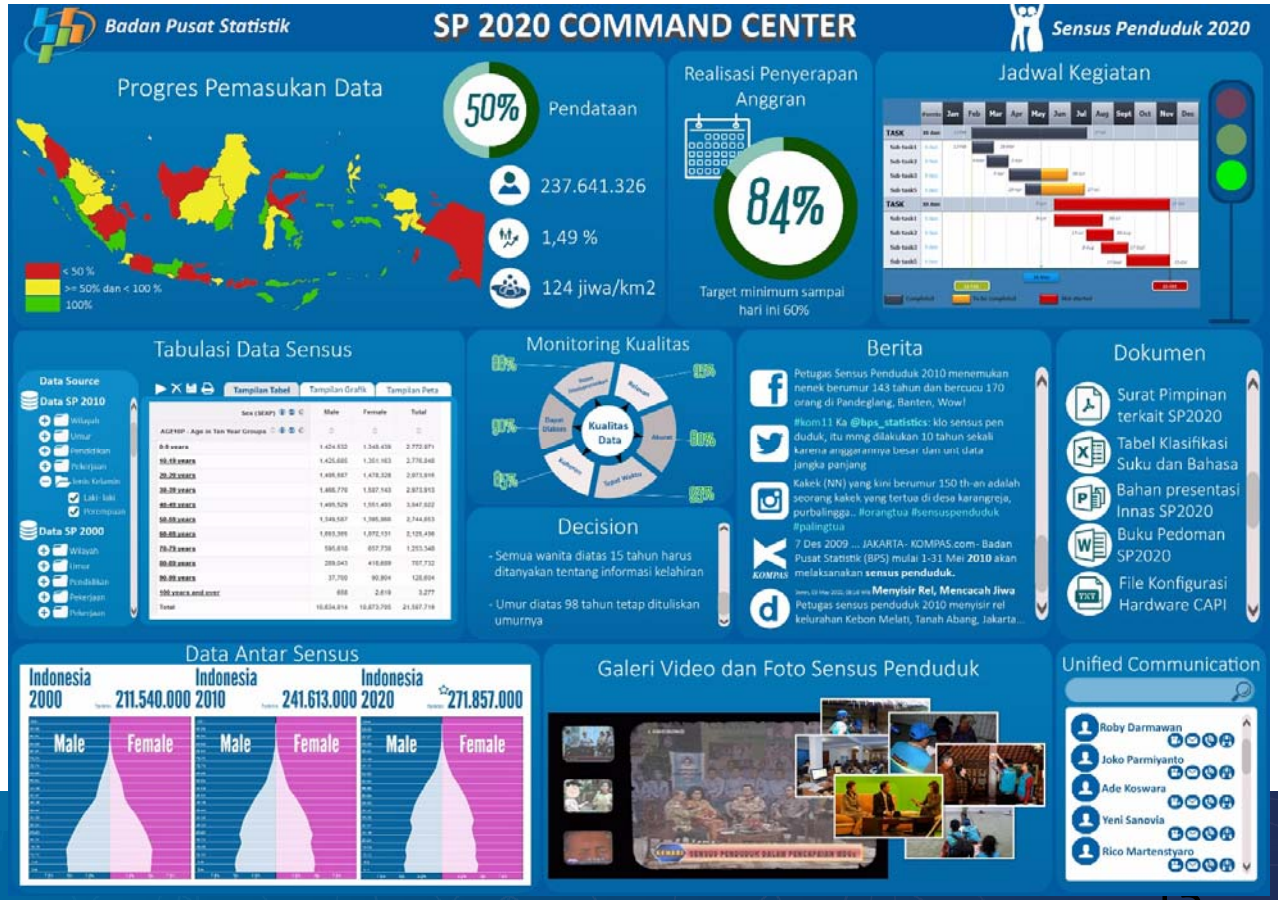
COMMAND CENTER

NASA

Russian Military

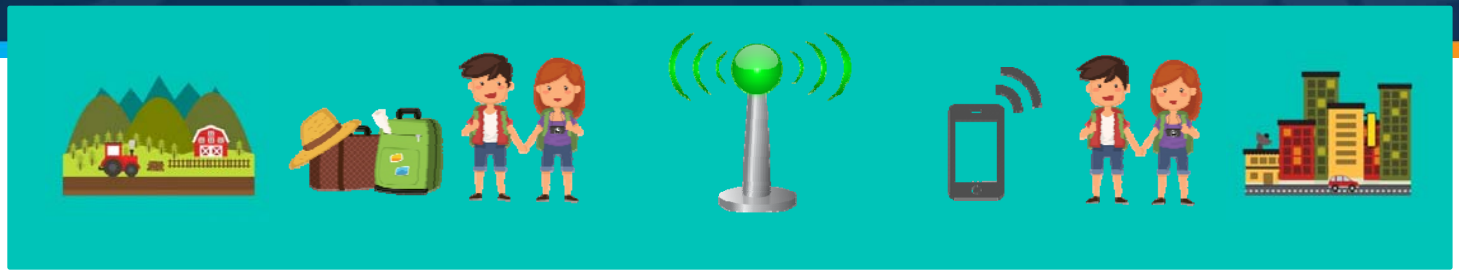
NATIONAL STATISTICS COMMAND CENTER

SURVEY/CENSUS COMMAND CENTER



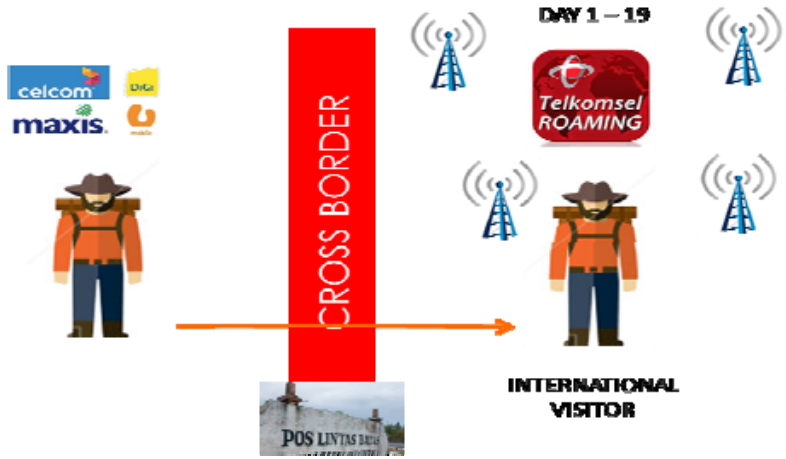
STATISTICS INDONESIA

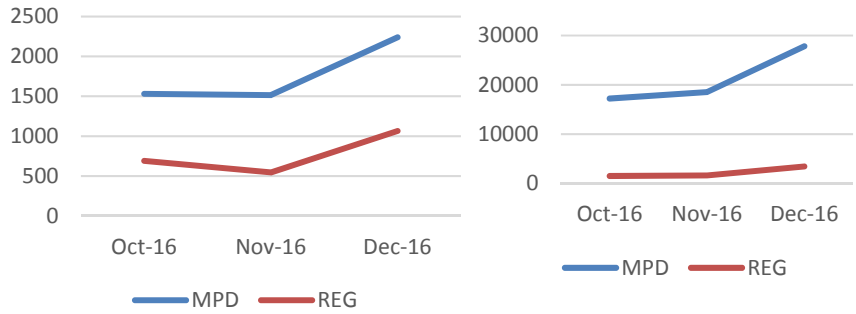
Initiation of Big Data Use for Official Statistics



THE UNITED NATIONS GLOBAL WORKING GROUP ON BIG DATA

The Use of Mobile Positioning Data in Tourism Statistics





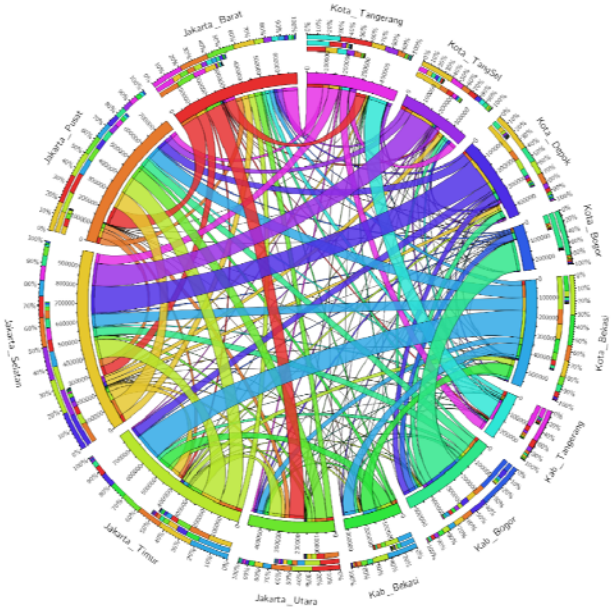
Measurement Configuration via Method of Roaming in Cross Border Area

Telkom Indonesia and Ministry of Tourism Republic of Indonesia

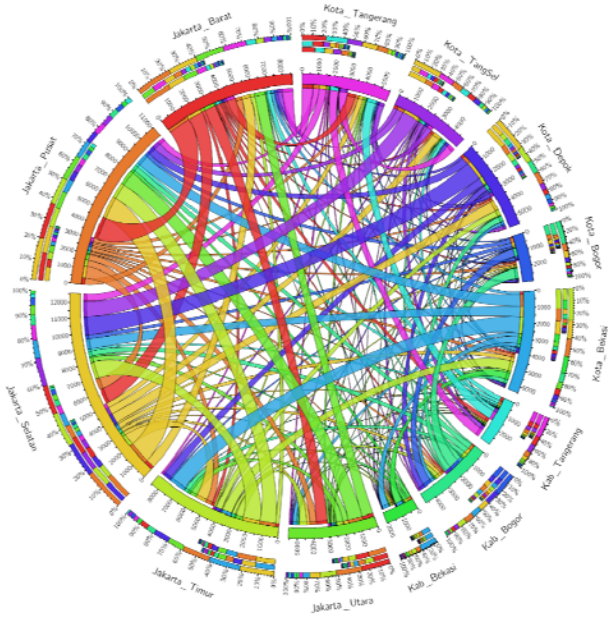
Big Data for Predicting Commuting Patterns

- Collaboration with Global Pulse Jakarta
- using multiple sources of data, e.g. social media (Twitter) to better understand inter-city commuting patterns
- Official Data: Greater Jakarta Commuter Survey 2014
- Twitters (February 2014)
- Origin: Location of most tweets
- Destination: 2nd most tweets location

Preliminary Results



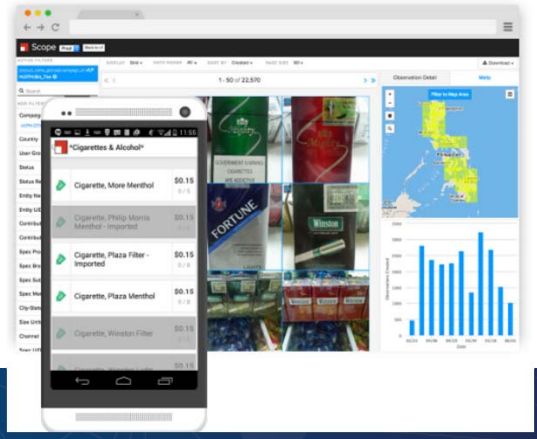
Commuter Survey



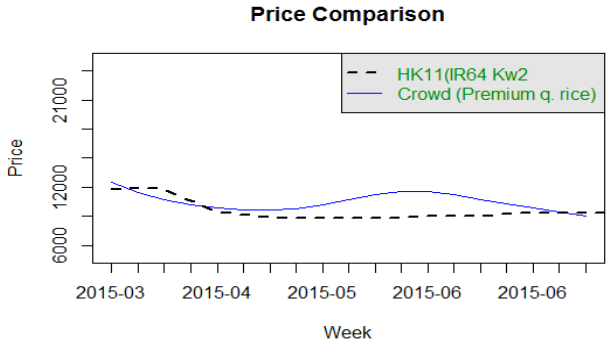
Twitter

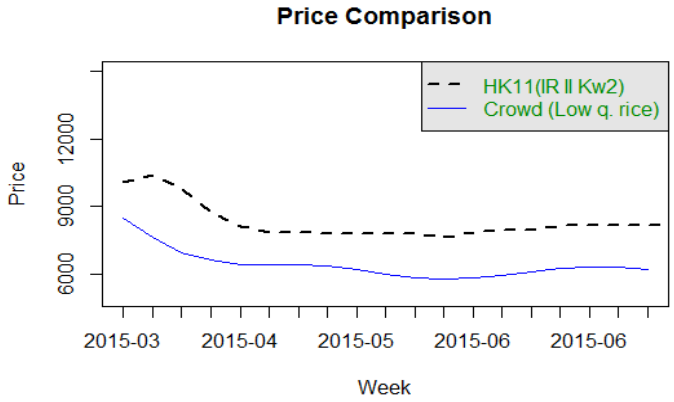
Big Data to Nowcast Food Prices

- Collaboration with Pulse Lab UN Jakarta
- Nowcast food prices using crowdsourcing (premise UN Food security project)
- Locus: City Mataram, NTB
- Time: March– July 2015

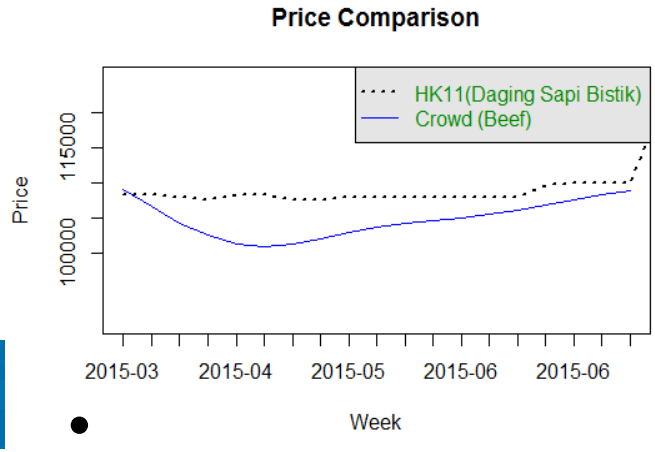


- Rice

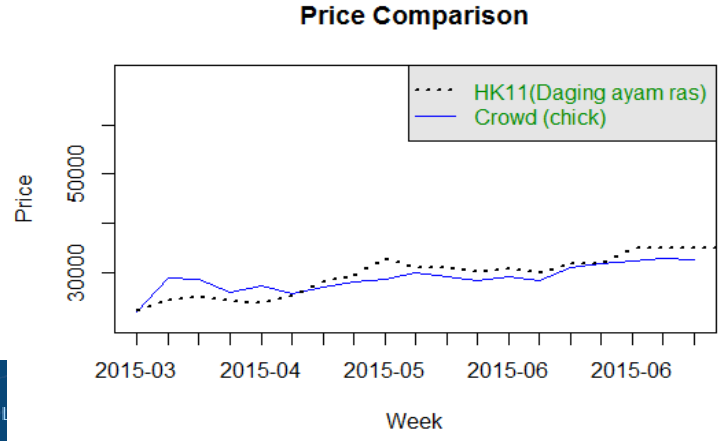




- Beef



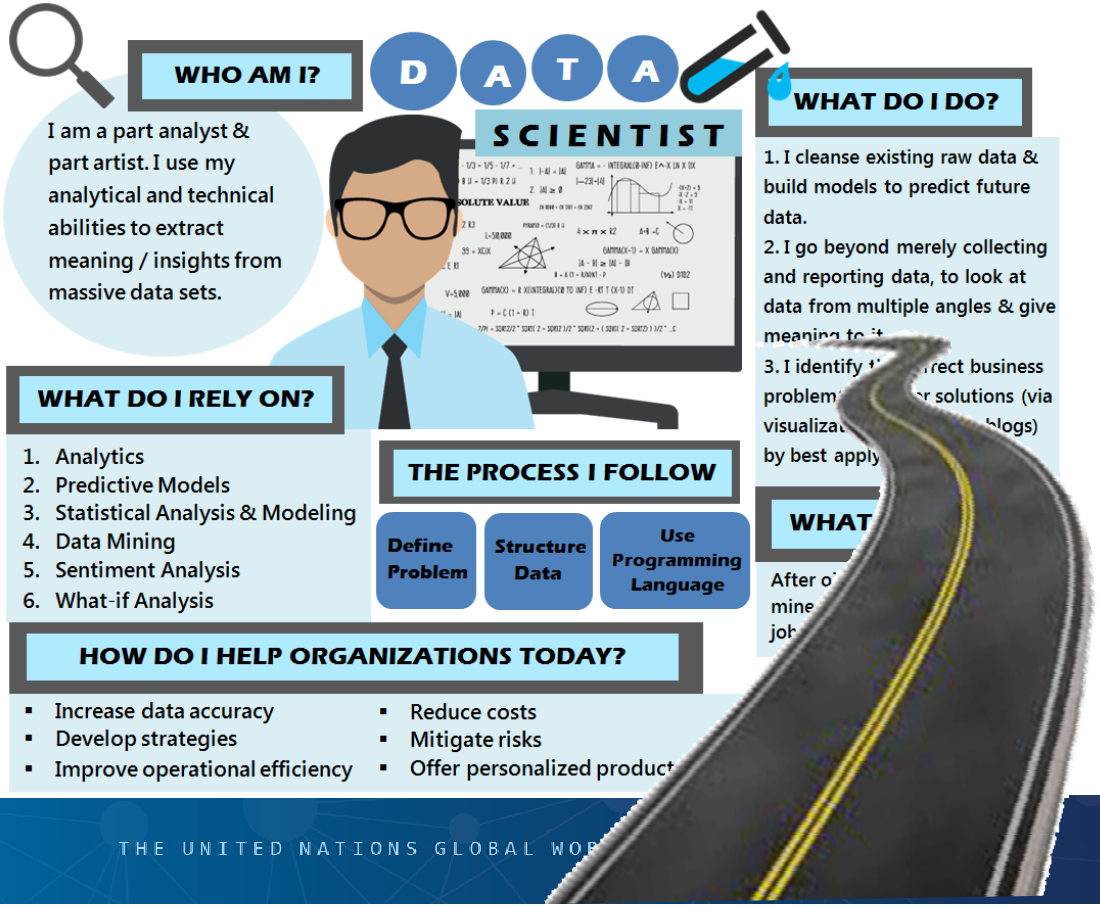
- Chicken



Other On Going Research

- BigData for Small Area Estimation
- Transjakarta Data for commuting pattern and traffic control
- Twitter for monitoring Migration, Happiness index.
- Bigdata for prediction Socioeconomics and Unemployment

DATA SCIENTIST ROADMAP



BPS Statistics Indonesia

Other Stakeholders

Institute of Statistics

- Center for excellent in Big Data for official Statistics
- Provide Data Scientist
- BigData Minilab for development

Gracias

Thank you

Terima kasih

THE UNITED NATIONS GLOBAL WORKING GROUP ON BIG DATA

#UNBIGDATA2017

GOBIERNO DE COLOMBIA | MINTIC | DANE INFORMACIÓN ESTRATÉGICA