



# Unravel Potential Partnership using Telco Big Data

Expert Group Meeting on  
Big Data for Official Statistics

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**Mia Melinda**  
**VICE PRESIDENT**  
**DATA SOLUTIONS**  
**TelkomSEL**

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- Having over **15 years of experience in the telco industry**, Mia is responsible for **leveraging TelkomSEL data assets** for the benefits beyond telco.
- She is **currently leading TelkomSEL MSIGHT** as a new growth engine for TELKOMSEL, a startup-mindset business unit inside a corporation **that focuses on the use of TelkomSEL rich audiences** for various insights and activation to grow businesses.
- During her leadership, she has been influential in **supporting government programs using telco data** and bring digital advertising and lending to a different level.
- Launched **Telco Credit Score** – the first in the country.
- Launched **Competitive insight dashboards** for e-commerce.
- Launched **API Insights Services** to cater financial institution.
- Activating **telco profiles in advertising** technology.
- And preparing many strategic plays to **accelerate digital transformation** in the nation.

# Telkomsel as a Leader of Telco in Indonesia

Having irreplaceable advantages of Data and Asset, Telkomsel invests in building the big data block to process the Big Data into insight for Telco and non-Telco use cases

## Data Source



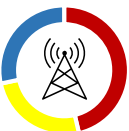
**Telkomsel:**  
The Biggest Mobile Network Operator in Indonesia



**170 Mn**  
Telco Subscribers



**105 Mn**  
Mobile Internet Users



**1.8x**  
# of BTS ratio vs next biggest competitor



**>95%**  
4G population coverage

## Telkomsel Big Data Asset

### Demographic

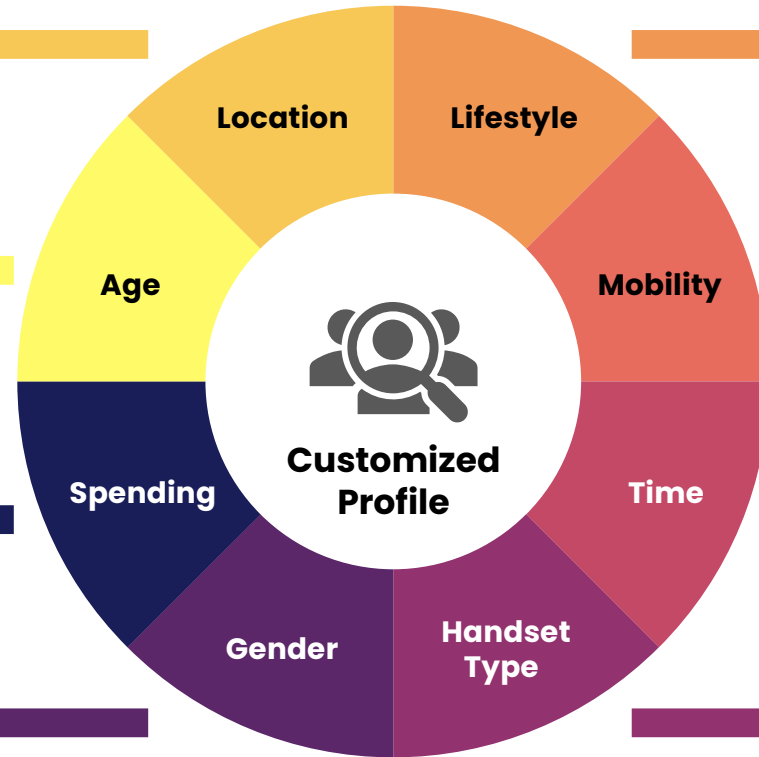
- City
- Area
- Hometown
- Street
- Building

- Adult
- Young Adult
- Teens

- Recharge Denom.
- Monthly Spent
- Price Plan
- Data Usage
- Digital Package

- Male
- Female

### Telkomsel Data



### Customer Habit

- Browsing History
- Music Streaming
- Video Viewers
- News Reader
- Social Media

- Traveler
- Home
- Work
- Hangouts

- Day
- Night
- Weekdays
- Weekend

- OS
- Brand
- Type

## Use Cases



Credit Scoring



ID verification



Competitive and Syndicated Insight



Mobility Bespoke (OOH, tourism statistics, location analysis, etc)



Dynamic Profiling



Personalize Offer



2G-to-4G Conversion



API Big Data Marketplace



Airtime Loan



**Big Data Platform**



**Talent**

# Limitless Possibility of Big Data

Telkomsel processes its data with big data analytics to create unique and valuable use cases

## Risk Insight

### ● Credit Scoring

A credit score based on telco behavior, to assess and acquire qualified customers for Financial Institution

#### Banks



#### Multifinance



#### Fintech



## Lifestyle Insight

### ● Competitive Dashboard

Intelligence dashboard to measure competitive landscape of online application



### ● Syndicated Insights

A dashboard that allows clients to have telco-based segmentation of their customer

#### Partner



### ● AdTech DMP - DSP

Target the right segment through relevant digital media by using Telco Data



## Mobility Insight

### ● Bespoke Projects

Tailored solutions for high value clients i.e. mobility pattern analysis utilized by public and private sector



**and Many More  
API Insights as a  
services..**

# Telco Big Data Partnership for Official Statistics

Tourism Statistics is the most common use case that keeps our partnership going

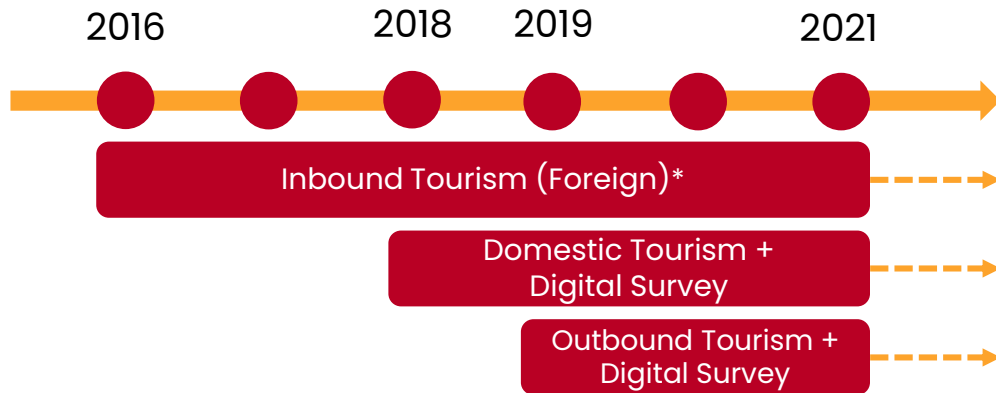
## The Most Common Use Case



## WHY – The Background

BPS (NSO) has a need to improve the conventional ways of collecting data for official statistics with a more effective and efficient methodology using telco big data in order to improve **data accuracy, timeliness, observation coverage area**, and in addition also to **increase the productivity** of regional BPS

## WHAT – The Partnership



- We started the partnership from developing methodology of Inbound tourism statistics for the Ministry of Tourism in 2016
- Until now we have had 3 use cases every year which is a form of collaboration between Telkomsel (MNO) and BPS

\* focus on some of the cross-border areas

## HOW – The Methodology

- The output is in the form of **aggregated insight** and individual data can only be accessed if there is **consent from the subscribers**
- TELKOMSEL and BPS collaborate in developing the methodology
- BPS conducts the R&D process in **TSEL sandbox** on **samples of subscribers data with hashed MSISDN** (subs ID) and only for the scope agreed in the contract
- BPS **develops scripts** according to the results of R&D and TELKOMSEL makes the scripts adjusted to the TELKOMSEL environment then **executes using all subscribers' data**
- The form of the reports is **Origin-Destination Matrix** based on the agreed format



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# Thank You!

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