



## Overview Report – Energy Operation

OREO System developed with **Ms. Power BI**

Aryo Anindito



# OUTLINE

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# 1. Introduction

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PT. Toyota Astra Motor



**Aryo Anindito**  
HRGA Div. | GA Dept.

## PROJECT SUMMARY

**PT. Toyota Astra Motor** or better known as **TAM**, as one of the largest companies in Indonesia, especially in the automotive sector. **TAM** is **TOYOTA** vehicle & accessories brand holding company. And also a company that is very concerned about global issues of energy & environment.

Today, in the digital era, every function in TAM has implemented digital improvements in every scope. With non core aspects, **GA** as a support function helps other divisions by calculating, analyzing & sharing energy record data.

Is to create **OREO System** [Overview Report – Energy Operation]. This system develops data using the big data concept with visualization using Ms. Power BI. Data development starts from managing, publishing into the system to visualizations that can be seen on the internal web system.

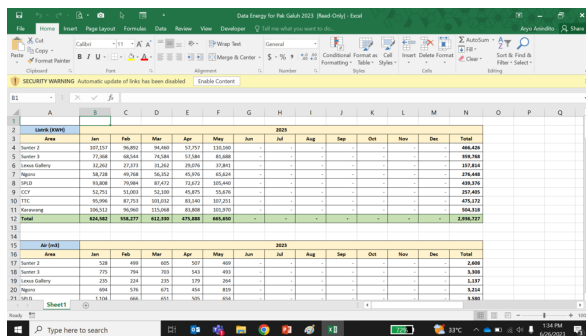
In summary, the **OREO System** developed with **Ms. Power BI** is presented to provide information data needs in the scope energy & environmental data. This really helps us as a GA support function to share data and allows users to get data, to use for reporting activities.

## 2. Background

### ① Manual Monitoring Data [Process Aspect]

Still a manual process to calculate & analyze for **energy & environment data**. Lots of data. Create any of the chart categories in **10 minutes**.

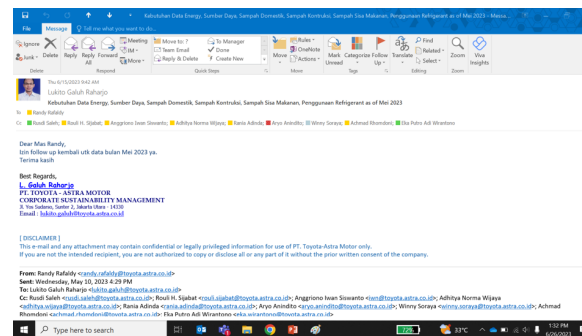
Excel file data handled



### ② Division & ASTRA Report [Need Aspect]

Divisions need energy & environment data to support their reports.

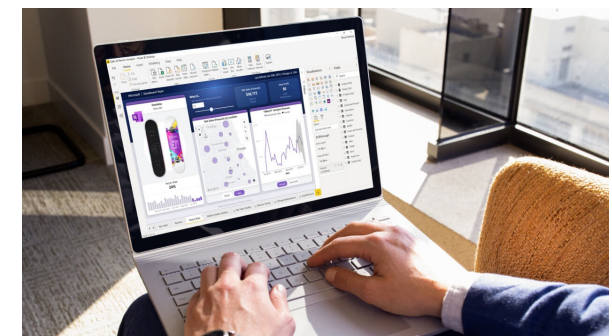
Request energy & environment data



### ③ Provided System [Digitalization Aspect]

IT Team has provided systems to support all functions to simplify operations.

Data visualization & analysis system



## PROBLEM Identification

Still a manual process  
to calculate, analyze and share data

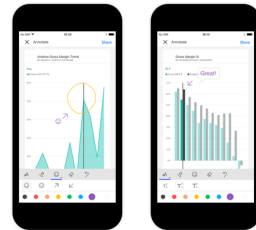
Learn from **MARKETING & LOGISTICS**

Potential for the development of  
data analysis with the system.



### 3. Objective

1



#### **Contributing digitalization changes**

In digital era for support function

2



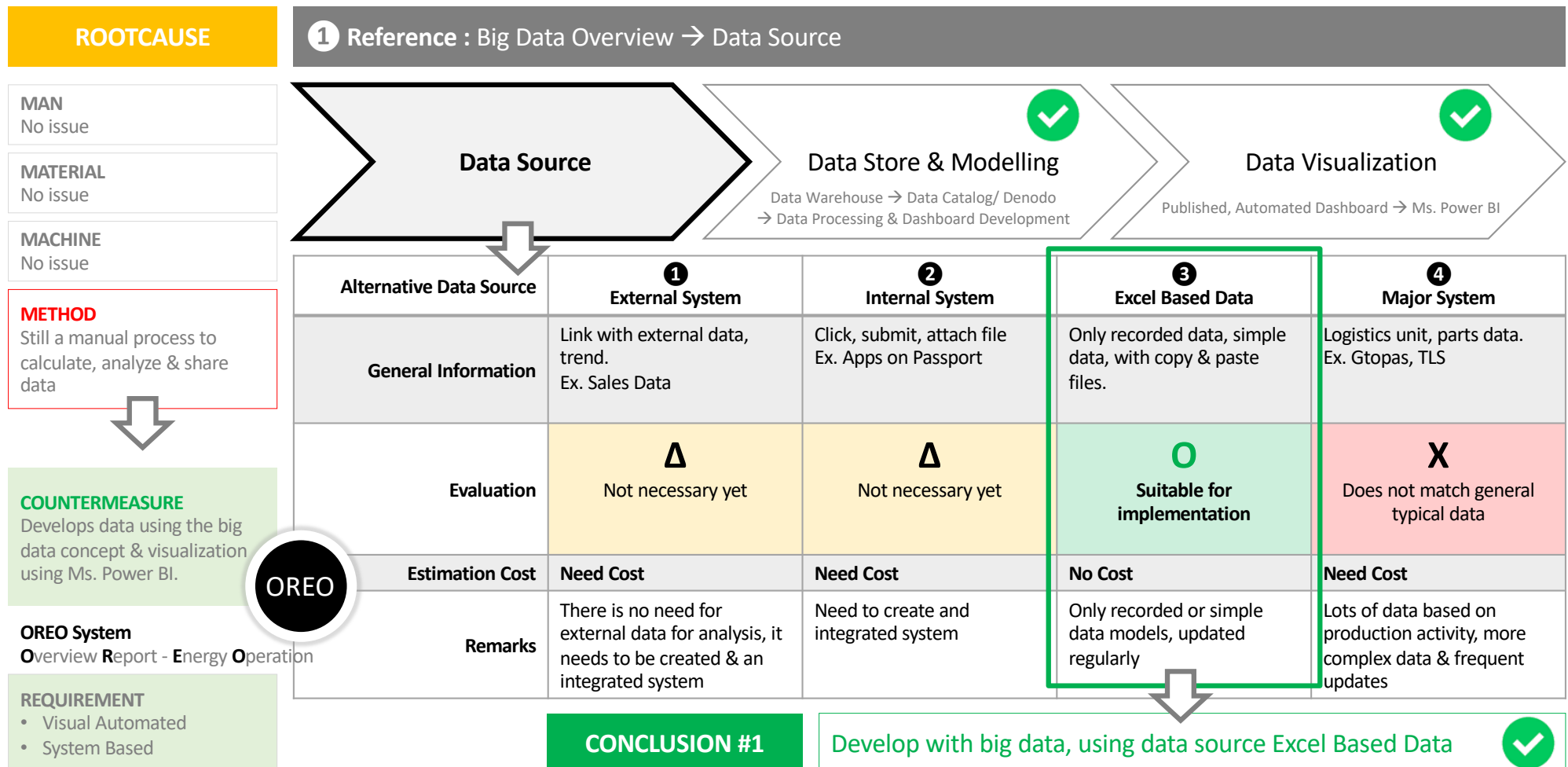
#### **Get a new experience of automatic visual**

To share allows users to get data

#### **TARGET**

To change or develop  
from “manual monitoring data” to an “accessible visualization monitoring data system”  
at TAM by 2023



## 4. Proposal



## 4. Proposal

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### 2 Excel Based Data

	1 Excel Sheet	2 Google Spreadsheet
Alternative Excel Format		
Save Data	Based on sent & inbox email Data is stored on each computer/ laptop device	Data is stored on google drive, can be downloaded & can be accessed anytime
Open Data	Data can not be opened at the same time for all teams	Data can be opened at the same time for all teams
Evaluation	<b>Δ</b> Not matched yet, only change process for external ( GA internal not changed )	<b>O</b> Best fit, change the process from GA internal to divisions & management/ director
Remarks	It takes time for new data to come in & potential charts changed if any data files are moved	Can be checked at the same time, all teams can contribute, data is easy to update

### CONCLUSION #2

Using Google Spreadsheet to manage data

### 3 Taskforce Team



Scope	GA Section	Structure	Company
Strategic	HEAD   COORD.	Sect. Head	TAM
Tactic/ Operation	AREA   AREA 1 AREA 2 AREA 3	Staff O/S	Vendor Partner

Scope	Strategic	Tactic/ Operation
General Activity	Check & update data	Input record data
Update Data Period	Monthly/ Total	Daily
Data Type	1. Electrical kWh & Cost 2. Water m3 & Cost 3. Domestic Waste m3 4. Solar Litre Genset 5. Photovoltaic kWh & Cost 6. Data Sharing 7. Energy Summary 8. Oil Genset 9. Construction Waste 10. AC Refrigerant	1. New Domestic Waste kg 2. Water Recycle m3

## 4. Proposal












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### 4 Accessible Data

DIGITAL PLATFORM		Ms. Power BI 	Google Drive 
GA	Rep. Area & O/S	•	•
	Rep. Head & Coord.	•	•
Cross Division	CSM Coordinator	•	
	CSM Head	•	
Management & Director	GA Dept. Head	•	
	HRGA Div. Head	•	
	FALS Director	•	
General Activity		View & export data	Input & update data

Only registered can access address data  
Ms. Power BI & Google Drive

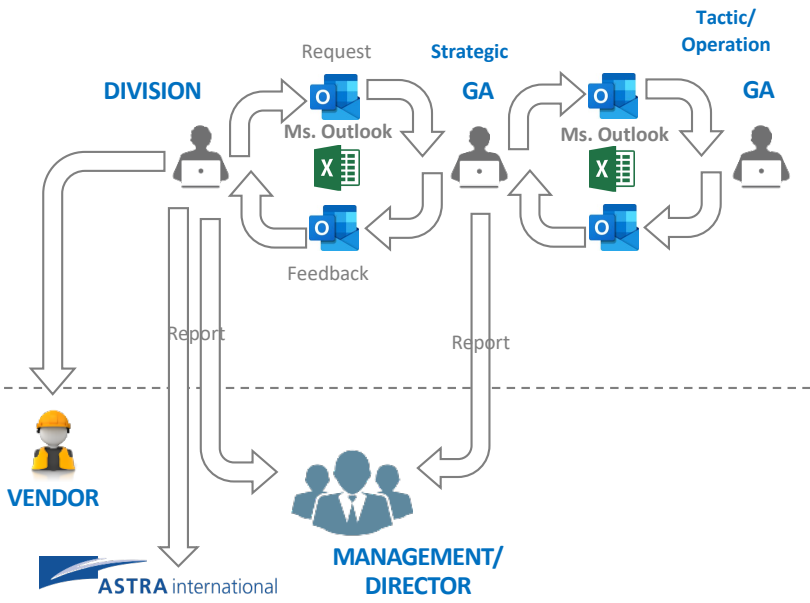
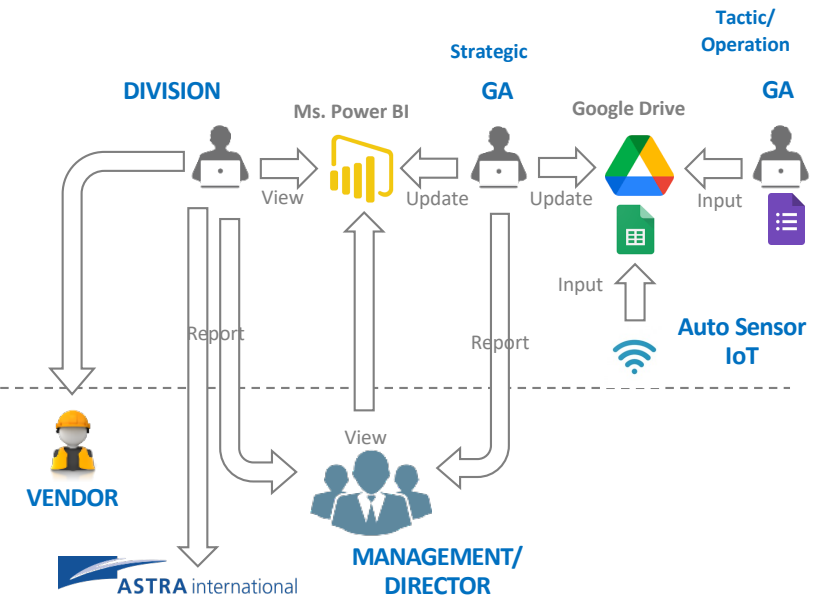
### 5 Publishing Flow

Item	GA	ISTD	Cross Division	Mgt/ Director
INPUT	① Create Visualizations  			
	② Submit Database Files  			
PROCESS		③ Publish Data 		
	 ④ Trial Phase 			
	⑤ Update Regularly  			
OUTPUT				⑥ View Data (username & password) 



## 5. Implementation

### 1 General Process

Item	Before	After
Description	Manual monitoring data process	Accessible visualization monitoring data system
Get Data Process		
End Data Process		
Output Data	Save or download data, data model based on content on file document	View chart & trend, analysis, screenshot, export or download table data

# 5. Implementation

## 2 Overview Display

<https://analytic.toyota.astra.co.id:5030/reports/powerbi/HRGA/Overview%20Report%20-%20Energy%20Operation?rs:embed=true>

PT. Toyota Astra Motor | HRGA Div. | GA Dept.



### Overview Report - Energy Operation

### Homepage



M1. Electrical



M4. Oil Genset



M6. Construction Waste



M9. Data Sharing



M2. Water



M5. Domestic Waste



M7. AC Refrigerant



M10. Photovoltaic Saving



M3. Solar Genset



D1. New Domestic Waste



M8. Energy Summary



D2. Water Recycle

Contact Information : Jl. Gya Motor Selatan No. 5 Surten, Jakarta Utara | 021-6515511 | helpdesk@toyota.astra.co.id

PT. Toyota Astra Motor | HRGA Div. | GA Dept.

### DATA SHARING

Year	Month	Area	Electrical kWh	Carbon CO2	Electrical Cost	Water m3	Water Cost	Save PV#1 kWh	Save PV#2 kWh	Save PV#3 kWh	Save PV#4 kWh
2019	January	CCY	74,568.21	64,874.34	170,551,173.00	772.00	11,801,836.00	0.00	0.00	0.00	0.00
2019	January	KRW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2019	January	LEX	33,007.00	28,716.09	49,600,045.00	216.00	2,700,479.00	0.00	0.00	0.00	0.00
2019	January	NGR	62,119.00	54,043.53	76,716,414.00	790.00	7,268,000.00	0.00	0.00	0.00	0.00
2019	January	SPLD	122,654.40	106,709.33	143,784,912.95	1,756.00	26,606,941.52	0.00	0.00	0.00	0.00
2019	January	STR 2	122,269.00	106,374.03	137,937,738.00	968.00	13,827,530.00	0.00	0.00	0.00	0.00
2019	January	STR 3	115,600.00	100,572.00	132,640,994.00	1,072.00	19,271,961.00	0.00	0.00	0.00	0.00
2019	January	TTC	95,383.18	82,983.37	230,955,947.00	467.00	7,139,204.00	0.00	0.00	0.00	0.00
2019	February	CCY	97,837.63	85,116.74	206,481,506.00	735.00	11,112,242.00	0.00	0.00	0.00	0.00
2019	February	KRW	27,116.40	23,591.27	163,573,358.00	0.00	0.00	0.00	0.00	0.00	0.00
2019	February	LEX	33,114.00	28,809.18	49,766,181.00	216.00	2,738,129.00	0.00	0.00	0.00	0.00
2019	February	NGR	68,330.00	59,447.10	84,388,056.00	796.00	7,341,600.00	0.00	0.00	0.00	0.00
2019	February	SPLD	104,064.00	90,535.68	120,844,341.50	1,392.00	21,019,840.60	0.00	0.00	0.00	0.00
2019	February	STR 2	123,004.00	107,013.48	138,379,133.00	854.00	12,300,970.00	0.00	0.00	0.00	0.00
2019	February	STR 3	101,128.00	87,961.36	115,632,591.00	1,101.00	13,523,961.00	0.00	0.00	0.00	0.00
2019	February	TTC	107,946.50	93,913.28	249,564,809.00	572.00	8,662,965.00	0.00	0.00	0.00	0.00
2019	March	CCY	92,877.20	80,802.99	201,127,893.00	941.00	12,910,768.00	0.00	0.00	0.00	0.00
2019	March	KRW	57,361.30	49,904.24	163,573,358.00	0.00	0.00	0.00	0.00	0.00	0.00
2019	March	LEX	34,513.00	30,026.31	51,861,000.00	192.00	2,436,629.00	0.00	0.00	0.00	0.00
2019	March	NGR	59,013.00	51,341.31	72,880,594.00	748.00	6,881,600.00	0.00	0.00	0.00	0.00
2019	March	SPLD	113,592.00	98,825.04	132,540,029.00	1,290.00	19,774,670.58	0.00	0.00	0.00	0.00
2019	March	STR 2	119,887.00	104,301.09	135,261,401.00	1,000.00	10,820,230.00	0.00	0.00	0.00	0.00
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2019	March	STR 2	119,887.00</								

## 5. Implementation

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### 3 Cost & Benefit

#### OPERATION



- a. **Easy & fast to create visualization**, just click on the graph, all data will be generated.
- b. **Updating latest data is easy**, just update regularly and it will directly connect to the Power BI web view.
- c. **Does not consume a lot of file size**, data is stored on the web.
- d. **Data is stored & secured on servers**, always monitored by the IT team.
- e. **Centralized data**, all teams can open data in one location and at the same time.

**Data** : Energy Report

#### CUSTOMER



- a. **No need to ask for an email**, all data can be check on the web, as long as only allows user.
- b. **Get new experience & satisfaction**, with the convenience of seeing automatic visual directly.
- c. **Accessible with many devices**, with desktops, laptops and mobile phone.
- d. **Easy to view & get data any time**, by exporting or downloading data up to screenshot graphs.

**Customer** : Internal & Cross Division

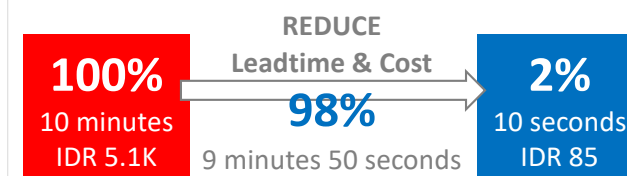
→ **Internal** – Energy Report to **Dept., Div., Director**  
→ **CSM** – Sustainability Report to **ASTRA International**

#### BUSINESS



- a. **Support companies to build an image**, by contributing digitalization changes in digital era for support function.
- b. **No cost needed**, visualization program made by GA, this app is free & installed by IT team.
- c. **Changing or developing process**, from a manual monitoring data to an accessible visualization monitoring data system. And also has an internal impact across divisions.

**Information** : Online on accessible web IT



*\*Based on UMR Jakarta 2023*

## 5. Implementation

## 4 How To View Data

## 1. How To Login System

- Open browser ex **Chrome** or Firefox
- Copy or insert link to web address
- Login with username & password laptop/ PC
- Allowed user can access to view & get data
- Click icon **Star** on web address and click **Selesai**
- Next, user can access with click **Bookmark**

Login

https://analytic.toyota.astra.com.id:5030

Nama Pengguna

aryo.anindito

Sandi

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Login

Batal


PE Toyota Astra Motor | HRGA On | GA Dept.

Overview Report - Energy Operation


Lainnya...SelesaiHapus




M1. Electrical




M4. Oil Garasi




M6. Construction Waste




M8. Data Sharing




M2. Water




M5. Domestic Waste




M7. AC Refrigerant




M10. Photovoltaic Saving




M3. Solar Genset



D1. New Domestic Waste



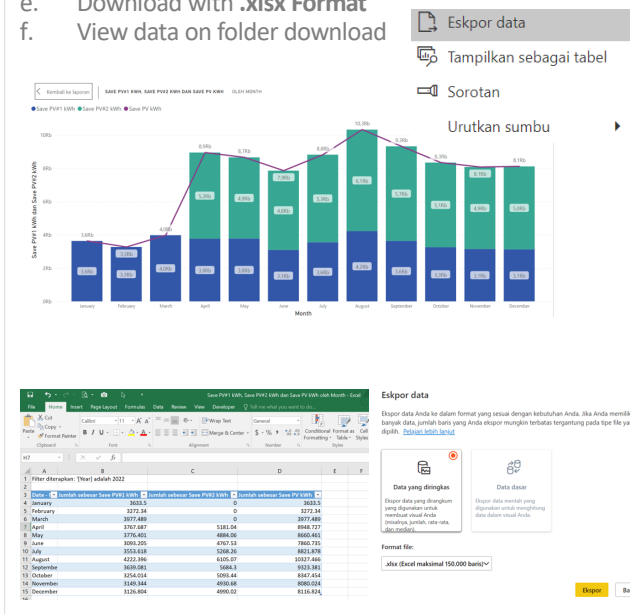
M8. Energy Summary



D2. Waste Recycle

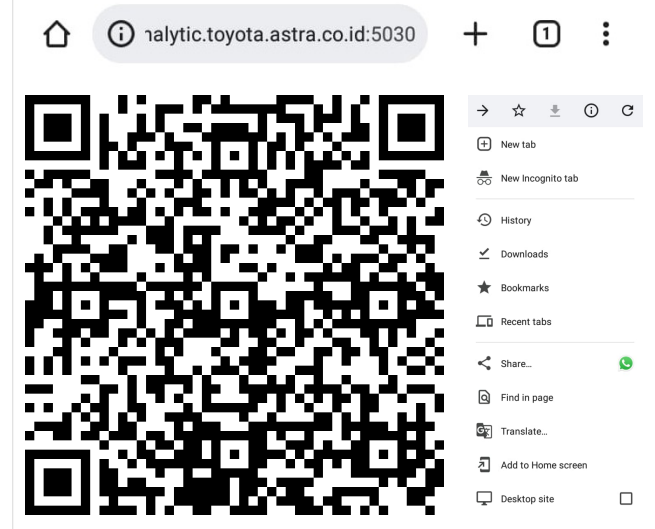
## 2. How To Save Data

- Modify sample one of chart, click **Mode Fokus**
- Screenshot with **PrintScreen** to get display chart
- Click on **Three Dots** or **Opsi Lainnya** to get database
- Click on **Ekspor Data**
- Download with **.xlsx Format**
- View data on folder download



### 3. How To Access On Mobile Phone

- Scan **QR Code** or open browser on Mobile Phone
- Copy or insert link to web address
- Login with username & password laptop/ PC
- Allowed user can access to view & get data
- Click on **Three Dots** & click **Add to Home Screen**
- Next, user can access with click icon on Home Screen

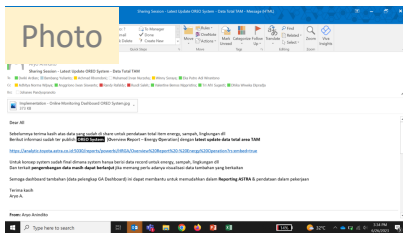


# 5. Implementation

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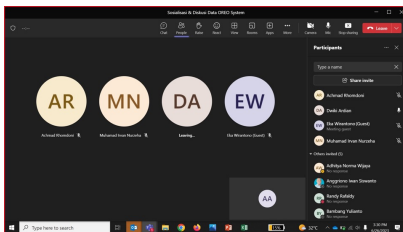


## 5 Documentation



Sharing Session via Email

## Video



Socialization via Ms. Teams



Site Coordination



THANK YOU...

