



## **OWL-Plantation System**

The best & proven ERP for Agribusiness

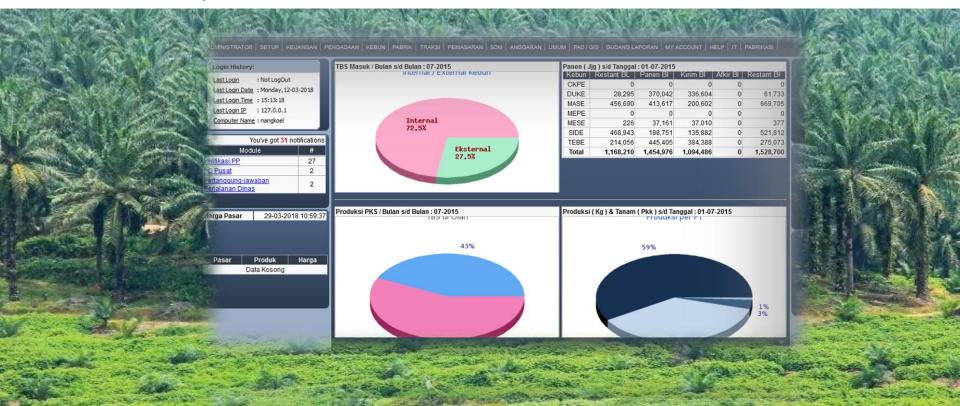
#### PT. ORIGIN WIRACIPTA LESTARI

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## What is OWL-Plantation System?

 OWL-Plantation System is Enterprise Resource Planning (ERP) that specializes in providing computerized system solutions for Agribusiness and built under open source platform.





## History

- Development starting in 2006 in Indonesia
- Built by young Indonesians who are experts in the Agriculture
- The first implementation in 2010
- Has been registered on behalf of Origin Wiracipta Lestari,PT since 2011
- Continuous development to date (2023) has entered version
   12.0



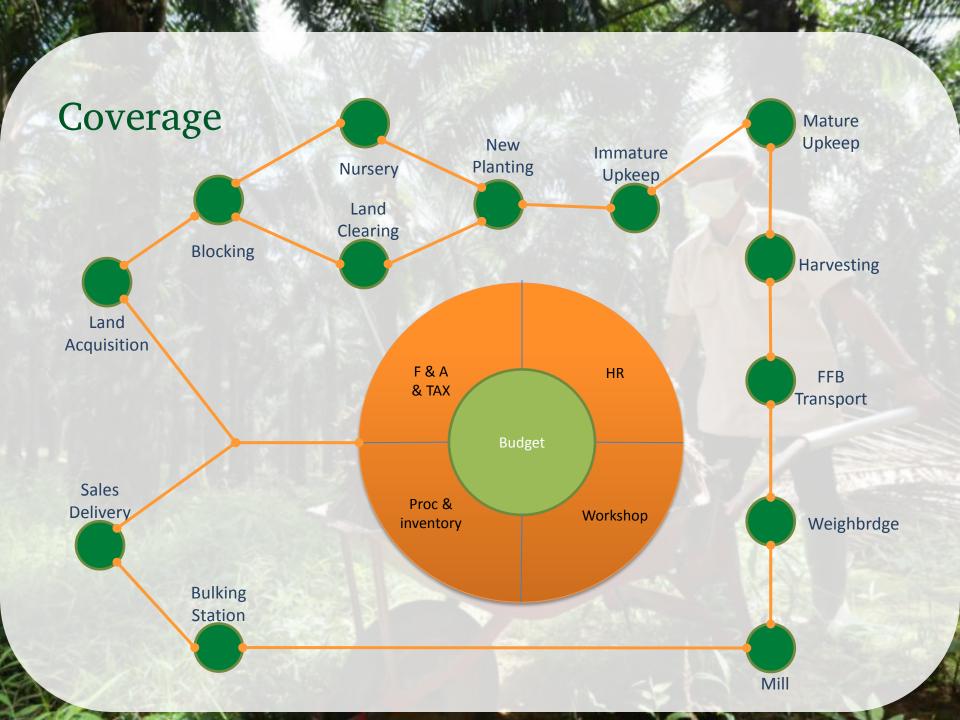


## Why we created OWL-Plantation?

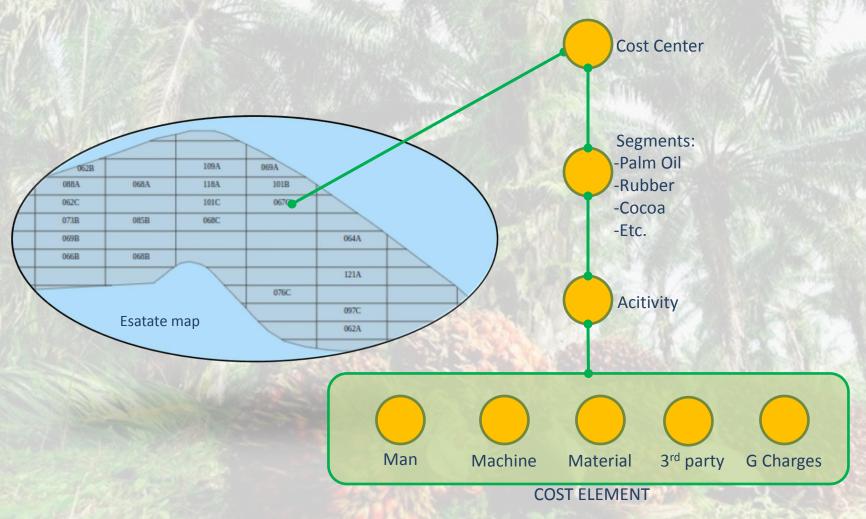
 Unavailability of specific solutions for the agribusiness system. Generally available only business solutions that have existed since the industrial revolution that is generally rigid, costly, difficult to implement and difficult to accept a new culture.



OWL-Plantation System present to eliminate these obstacles in the hope that agribusiness can be more productive, efficient, easy to control and environmentally friendly



## **Basic Concept**



## What are the advantages?

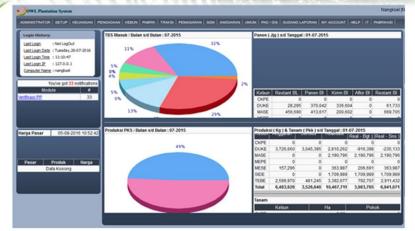
- 1. Total solution from A to Z, so no additional apps required
- 2. Single entry of all data source lines, thus reducing duplication of work
- 3. Digitalization of field administration (Android) to reduce administrative personnel
- 4. There are no restrictions on the number of users
- 5. Multi company and unlimited number of companies
- 6. Specific security & authorization base on company organization structure
- 7. Easy integration with 3<sup>rd</sup> hardware or software
- 8. Lightweight data transfer
- 9. Easy to develop with millions of developers available on the market
- 10. Available in both Cloud and On-premise form
- 11. Specific features for Agribusiness
- 12. Available after sales service and also customers can choose develop independently
- 13. Developer training is free of charge
- 14. Low investment on peripheral & data infrastructure



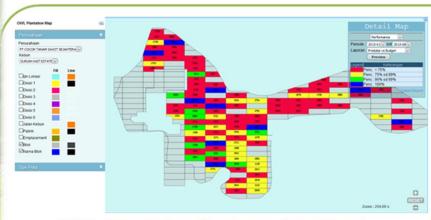
Estate

Nurer

## **Software Products:**



**OWL-Plantation System (ERP)** 

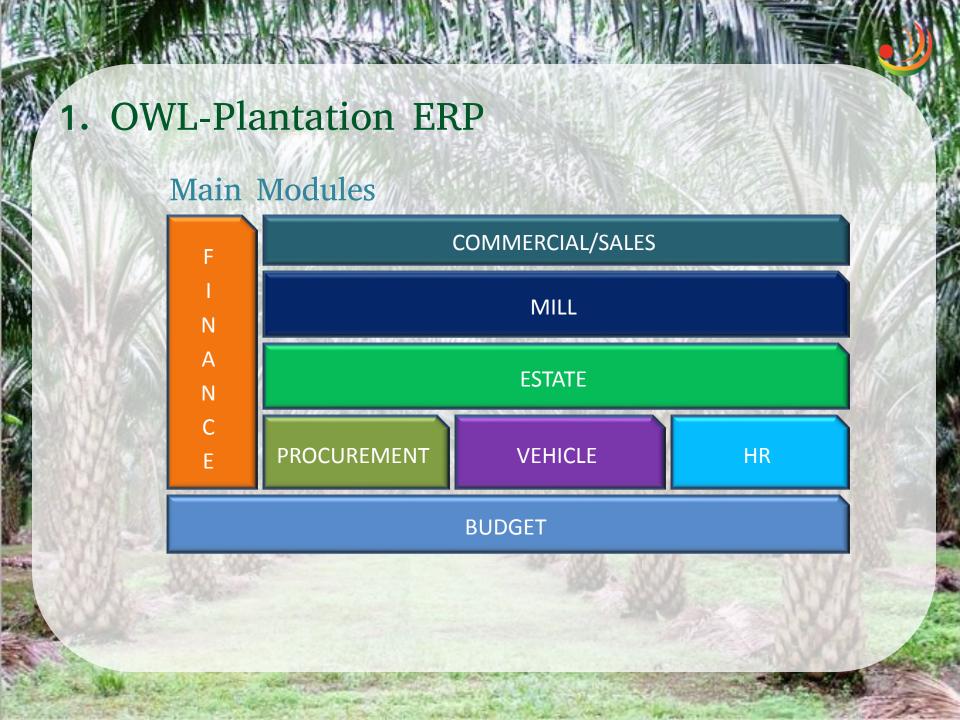


**OWL-Plantation Business Intelligent** 





**OWL-Plantation Mobile** 



### 1. OWL-Plantation ERP Main Features

#### Sub-modules

#### Budget

**Estate Management** 

Vehicle & Heavy Equipment

Mill Management

Budget

**Department Support** 

Additional Budget Approval

All related Reports

#### **Vehicle**

Vehicle/ Heavy Equipment

Service & Maintenance

Activity

Preventive Maintenance

**Project System** 

Civil Activity

All related Reports

#### Mill

Weighing

**Process** 

Maintenance

Production

Mill Loss

Grading

All related Reports

#### **Human Resource & General**

**Employee Data and Family** 

Payroll Unit

Loan & Installment

PPh21

Reminder

Promotion/Demotion/Mutation

**Business Trip** 

Leave Proposed

Housing & Infrastructure Condition

Presence with Fingerprint

BPJS/Jamsostek

**Electronic Filing System** 

#### **Estate**

**Areal Statement** 

Nursery

**Land Clearing** 

Immature & Mature (Upkeep)

Harvesting

**FFB Transport** 

Quality Control/QC

Census of Production

Daily and Monthly Program

All related Reports

#### **Procurement**

Purchasing

Warehouse /Inventory

Contract

Contract Settlement All related Reports

#### Finance/Acc.

Cash /Bank (AR-AP)

Journal

Asset management

Loan Management Financial Statement & Report

After Audit Journal

#### **Managerial Report**

Monthly Management Report

Managerial Report Financial Report

Asset

#### **Commercial**

Sales Contract

Contract Fulfillment and Delivery

Tax Invoice

Daily Market Price

External FFB

#### PAD

Land Acquisition History/List

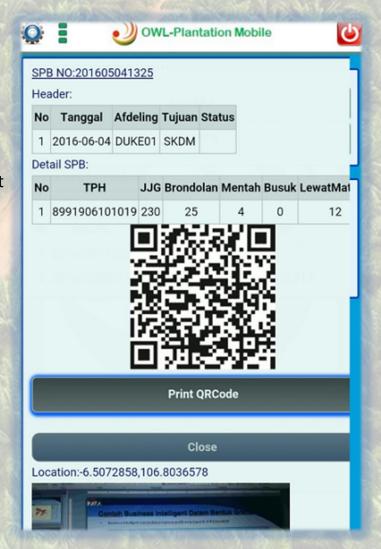
## 2. OWL-Plantation Mobile Apps

#### **Mobile Features:**

- Area Statement Master
- Employee Master
- Daily upkeep activity
- Daily harvesting record
- Harvesting transports (SPB) with qRCode Format
- Geographical positioning recording
- Approval by Assistant or Admin Head
- Daily reporting viewer

#### Server Side Features:

- All related master data
- All Related Formula (Policy)
- All Related Report (Cumulative)

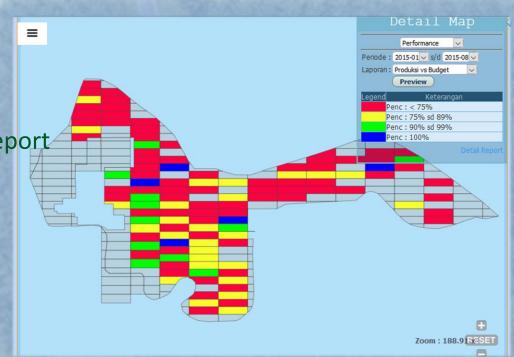




## 3. OWL-Plantation Reporting Analysis

#### Features:

- Map Reporting
  - Planting point
  - Tracking
  - Cost
  - Activity Cycle
  - Performance
- Drillable graphical report
  - Cost
  - Activity Cycle
  - Performance
  - Comparation



### 4. Censors Products:



#### **Digital Ombrometer:**

- Minim Maintenance
- AutoFlush
- Bluetooth/Wifi/UTP
- Auto-Upload while direct connection



#### **Storage Sounding Censors:**

- Lasser Censors
- Bluetooth/Wifi/UTP
- Auto-Upload while direct connection
- Very useful for production calculation accuracy



#### **Mobile Fingerscan:**

- Very useful for guaranteeing workers on site and can divide costs accurately against workers doing more than one job in a day
- Geotagging
- Bluetooth/Wifi

## Benefits obtained through the implementation of OWL-Plantation



Reducing administrative workforce

Free user License (Unlimited Users)

Free License for multiple
Business Unit

Reducing paper usage

#### **EASE OF BUSINESS CONTROL**



#### REAL-TIME DATA

Gives you time to make good decisions

#### HIGH ACCURACY DATA

Single entry, no redundant input

ALL BUSINESS LINE IN ONE APPLICATION

You can see which lines need guidance

## How the system can save costs

#### Countable:

Assume per Estate Unit or equivalent to 5000Ha of planted area. Then the savings that can be calculated are as follows:

- 1. Paper: total savings of IDR. 700,000/month
- 2. Labor: total savings of IDR. 40,000,000/month (10 people)

========Total/Year IDR 488.400.000

#### Uncountable:

- Minimum Loss due to to maximum control
- High accuracy for right decision
- Rapid information for rapid decision making



## Try OWL-Plantation Demo

To confirm conformity with your needs, the OWL-Plantation system provide a demo link, you can follow the link below

http://demo.owl-plantation.com

### Services

#### 1. OWL-Plantation Implementation

% of Modification	Months									
0-15%	1	2	3	4	5					
16-30%	1	2	3	4	5	6	7	8	9	

Implementation time depends on the size and the necessary modifications, and will determined based on the results of scooping. for palm oil companies, customization is usually up to 10%. For companies that are multi-commodity, customization can generally reach 30%

#### 2. After Sales Support (Support Service)

- Onsite training
- Emergency support on technical failure
- Regular technical support
- Report Customization
- Minor change request

### **Technical Information**

#### Framework:

**OWL-Framework:** 

OWL-Framework is the first product of OWL-Plantation System which is the base for development modules, authorization planner, security environment and application management of OWL-Plantation System.

#### Language:

PHP, HTML5, CSS3, Javascript, SQL,SVG

#### Apps.Server Environment:

Operating System: Linux (Debian Linux recommended)

Database: MariaDB

Server Feature: Apache Web Server, JpGraph, FPDF, PHP-Pear, Minicon,

Cronjob

#### **Development Tools:**

Any text editor (<u>Notepad++</u>, <u>Sublime Text</u>, <u>Netbeans IDE</u>, <u>Aptana IDE</u>, <u>Eclipse IDE</u>, <u>Komodo IDE</u> etc.)

Cordova and Phonegap (for OWL-Mobile), Adminer, Subversion

## Technical Requirements

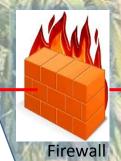






Processors: 4 Storage : 1TB Memory: 8Gb

(this specs depend on data growth and planting areal)



4Mb 1:1



PDA



Internet



**3G Notebook** 

#### Minimum bandwidth:

-Data Type: 3G,H+,Broadband -Bandwidth: 128/256 CIR 1:2

-Max User: 5 Concurrent User/6.000Ha





Who Is Origin Wiracipta Lestari, PT?



## Origin Wiracipta Lestari, PT

Origin Wiracipta Lestari, PT was established in Jakarta (Indonesia) on 28 Feb, 2011. The shareholders are domestic company, Ninox Sakti Indonesia, PT and Minanga Ogan Group (Palm Oil Company).

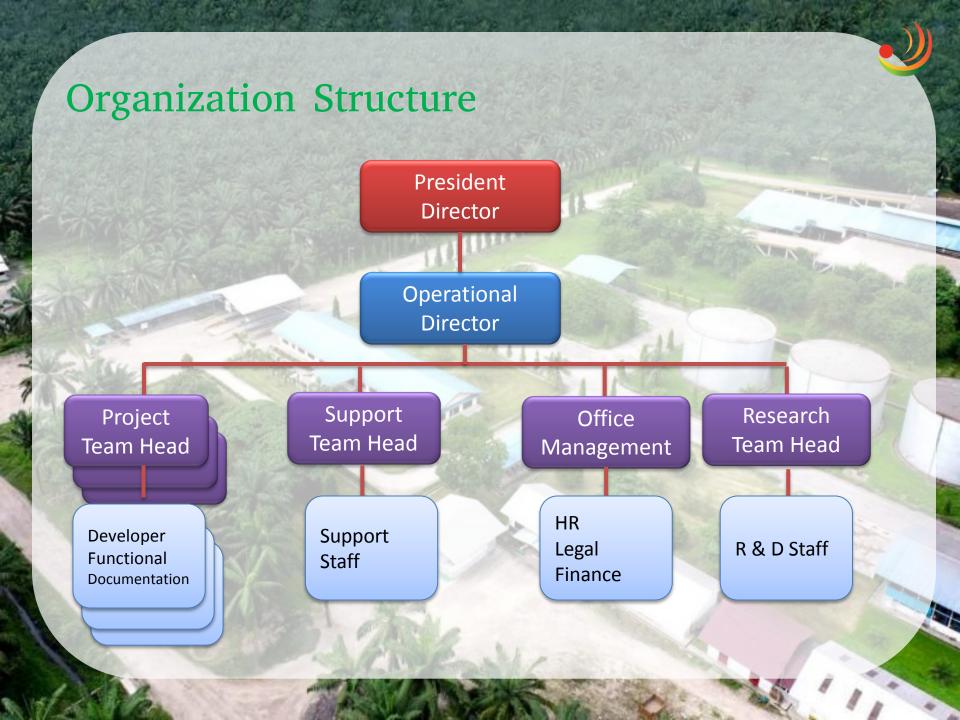
Origin Wiracipta Lestari, PT

Is an OWL-Plantation system implementer and also provides OWL-Plantation system maintenance services

OWL-Plantation System has been registered at the Ministry of Law and Human Rights Republic of Indonesia in 2013 with the number 066493 dated July 4, 2013.

#### Director

- President Director: Yazid Kanca Surya (Treasurer DMSI)
- Director : Repindra Ginting
- Commissioner
  - Nursani Mona Surya (President Director PT. Perkebunan Minanga Ogan, General Treasurer GAPKI 2018-2023)



## Clients

1	Vo.	Company Name	Area (Ha)	City	Site	
L	1	Minanga Group	35,000	Jakarta	Sumsel,Lampung, Kalti	
L	2	Mahanusa Hijau Selaras Group	8,500	Jakarta	Kal-Bar	
L	3	Fajar Baizury Group	12,000	Jakarta	Nagan Raya, Aceh	
1	4	PT. Nafasindo	9,000	Medan	Singkil, Aceh	
1	5	PT. Bursa Berjangka Jakarta (JFX)	-	Jakarta	Jakarta	
1	6	Hardaya Plantation Group	42,000	Jakarta	Sul-Teng, Kaltara	
L	7	KPP Group Samarinda	15,000	Samarinda	Kaltim	
L	8	Medco-Agro	32,000	Jakarta	Kalteng,Papua	
	9	PT. Fortius Wajo Perkebunan	45,000	Jakarta	Jambi	
	10	Bima Palma Nugraha	18,000	Jakarta	Kal-Tim	
B	11	The Capitol Group	12,000	Jakarta	Papua	
	12	Dharma Agung Wijaya Group	8,000	Jakarta	Jambi, Kalbar, Kaltim	
	13	Cempaka Mas Abadi	9,000	Jakarta	Sumsel, Kalteng	
	14	Menthobi Makmur Lestari	6,000	Jakarta	Kalteng	
L	15	Shin Tek Huat Group	15,000	Jakarta	Jambi, Kalimantan	
	16	Syaukath Sejahtra	Mill Only	Banda Aceh	Aceh	
	17	Mong Reththy Investment Cambodia	20,009	Cambodia	Phnom Penh	
	18	Citra Putra Asri Group	5,000	Banjarmasin	Kal-sel	
L	19	Jawapos Agro Group	6,000	Surabaya	Jambi	
L	20	<del>Bumitama Gunajaya Agro</del>	<del>180,000</del>	<del>Jakarta</del>	Kalimantan	
7	21	Parna Raya Group	6,000	Jakarta	Kal-Bar	
1	22	Ithaca Group (ex.Lymann)	35,500	Jakarta	Kal-Bar	
	23	Goldenland Gemilang	3,800	Jakarta	Kal-Teng	
8	24	Batu Gunung Mulia Putra Agro	Mill Only	Jakarta	Kal-Sel	
Ł	25	Bakrie Sumatra Plantation	90,000	Jakarta	Sumatra	
	26	Menara Sentrarejeki	Mill Only	Jakarta	Jambi	
L	27	Ichico Agro	6,500	Jakarta	Kal-Bar	
	28	Anugrah Langkat Makmur	7,300	Medan	Madina, Langkat	



## **OWL Plantation Mobile App**



The Best and proven ERP for Palm Oil Plantation Business



## Min Device Specifications



OS :Android 7 (+)

CPU : 1.8 GHz Cortex-A75

1.8 GHz Cortex-A55

⇒ DISPLAY :400 nits

BATTERY: Li-Po 5000 mAh

CAMERA: Single 8 MP

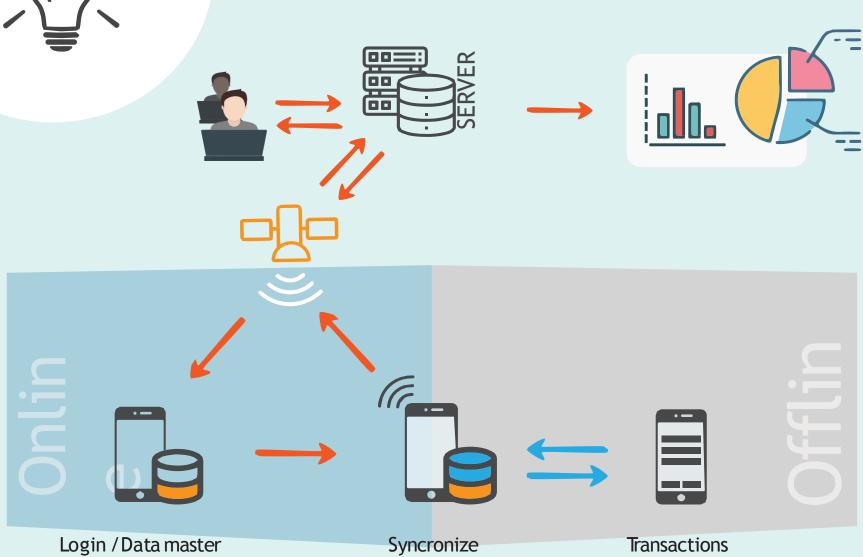
MEMORY : 32GB - 3GB RAM (+)

Cover : Hardcase, Tempered glass

Waterproof Case



## Method





## Flow Proses Harvesting Clerk



Morning Briefing

#### Login / Sync Master

Master data sync required to download all required data to use it offline in the field -Employee master data, Block, Collection point etc.



Input Scan Collection point ID and input number of bunch



Foto
Take Foto of collection
point



Pur qR Code on the top of bunch and will be used by transport clerk

# Onlin



#### Sync Transactions

Data sync to the server at the afternoon.

**FINISH** 

FINISH



The data stored on local phone.





## Flow Proses Verification by Foremann



#### Login / Sync Master

Master data sync required to download all required data to use it offline in the field -Employee master data, Block, Collection point etc



Scan QR of the harvesting clerk

Check if its correct or not



Foto

If not correct, edit the data, save and print another qR



Print & Replace QR old qR



Data sync to the server at the afternoon.



#### Finish verification

The data stored on local phone.





## Flow Proses Transport Clerk



Morning Briefing

#### Login / Sync Master

Master data sync required to download all required data to use it offline in the field -Employee master data, Block, Collection point etc



Key in Truck ID



Scan QR on each collection points



Print QR

This qR will used as transport document from the field to mill



Sync Transactions

Data sync to the server at the afternoon.



Complete all collection point

Data stored on local phone.







## Flow Proses Transport for double handling



To larger collection point

START



Input new truck ID



Scan QR from stage (1)



Print out new qR as the second Transport document (stage 2)



collection point

To larger collection point

Onlin





FINISH

Scan qR in the weighbridge. All the data will be automatically sync to the server



## Flow Proses Upkeep Foremann



Morning Briefing

#### Login / Sync Master

Master data sync required to download all required data to use it offline in the field -Employee master data, Block, Collection point etc.



Fingerprint
Of all upkeep worker



Input
Kay in data based on activity and output



Take foto





Sync Transactions

Data sync to the server at the afternoon.

**FINISH** 



Data stored on local phone



Info

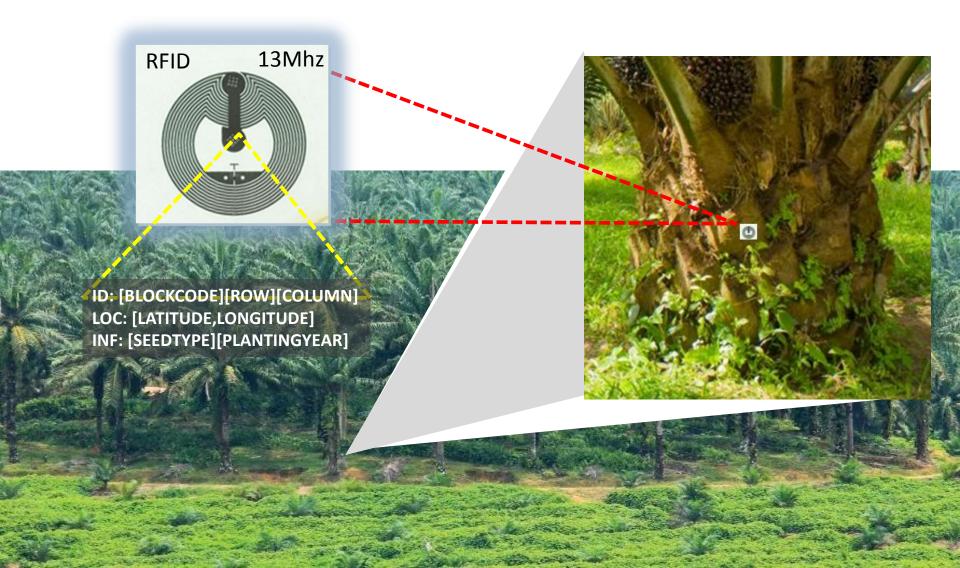
All the data recorded with GeoTag. So it can displayed through map.

## PLANTING POINT IDENTITY





## PLANTING POINT IDENTITY



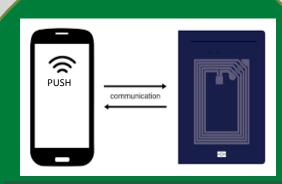


## Objective:

- Higher accuracy in Tree Census (TC)
- Higher accuracy in Black Bunch Cesnsus (BBC)
- Higher harvesting yield estimation
- Detailed harvesting control
- Detailed fertilizer application control
- Precise measurement of tree based activity performance

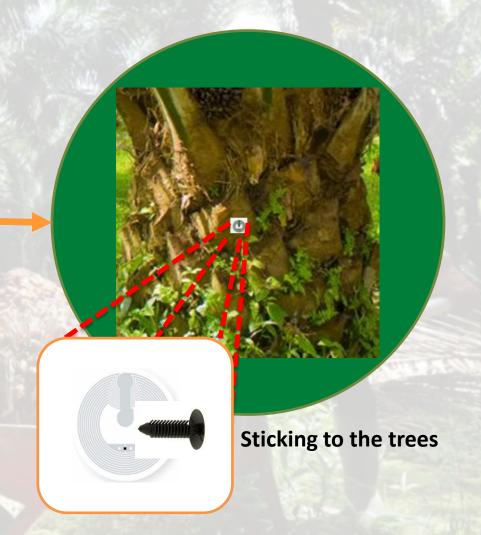


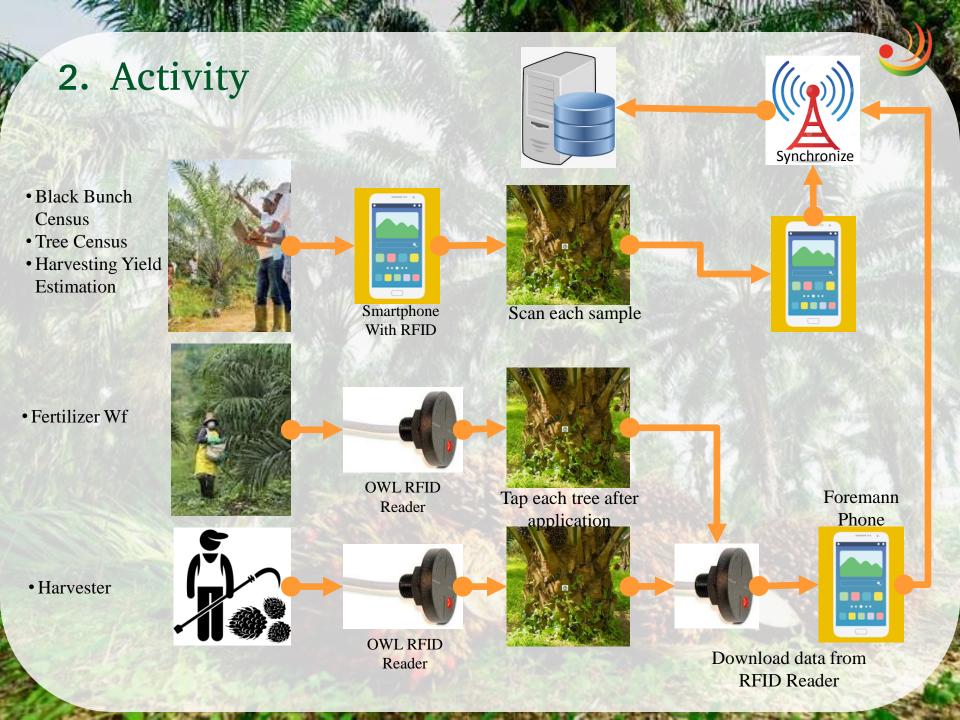
### 1. RFID Sticker Installation



ID: [BLOCKCODE][ROW][COLUMN]
LOC: [LATITUDE,LONGITUDE]
INF: [SEEDTYPE][PLANTINGYEAR]

Record tree identity to RFID





## 3. Reporting

- Actual planting point (Grow)
- Harvesting cycle/tree
- Fertilizer volume/tree
- Fertilizing cycle/tree
- Visualize BBC Census tree by Map
- Visualize Samples of yield estimation

## Equipments





