ata marie

Global ERP - Rubber

Rubber Plantations Management, Harvesting and Logistics, Processing

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Background

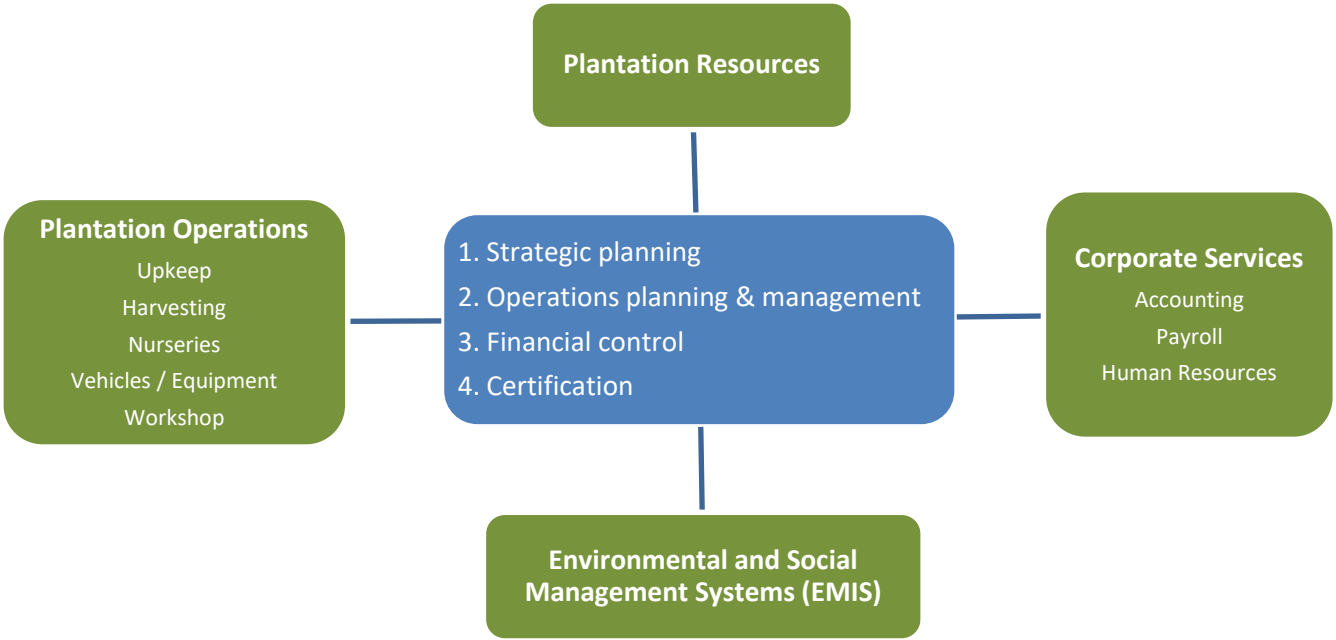
Ata Marie has been involved with the establishment and management of large rubber plantations in South East Asia.

Ata Marie has designed systems for rubber plantation operations management including plantation mapping, plantation silvicultural operations and rubber tapping logistics.

This document provides the general design of the plantation rubber IT systems.

Overview of Systems Requirements

The rubber systems are an integrated plantation management IT solution:



Requirements Breakdown

Resource Systems Requirements		
Category	**Operations layer**	**Financial layer**
Resources	Mapping	
	Plantation record system	
	Asset reporting	Balance sheet
	Census / Inventory	

Requirements Breakdown

Plantation Operations (1)		
Category	**Operations layer**	**Financial layer**
Plantation Upkeep	Operations planning & budgeting	GL forecast
	Operations scheduling / standard regime	GL forecast
	Operations management	GL forecast
	* Work prescriptions	
	* Rate setting / detailed costing	
	* OHS documentation	
	* Work orders	Payroll
	* Purchase orders / contracts	Purchase orders
	* Stock requisition / stores	P/L, acc payable / receivable, stock
	* Quality control & acceptance	
	* Processing of invoices and payments	P/L, acc payable / receivable
Plantation Harvesting	Employment ageeements / Staff	HR
	Contracts / external harvesters and transport	
	Harvest operations scheduling	
	Production records systems	
	* Cut lump	Stock
	* Latex	Stock
	* Quality control	
	Payroll	Payroll
	Invoicing / payments	P/L, acc payable
	Staff / contractor management	Work orders / Purchase orders
	Sales contracts	
	Invoicing / receipts	Acc receivable
	Production reporting	
	* Worker level productivity	
	* Block level productivity	
	* Estate level productivity	

Requirements Breakdown

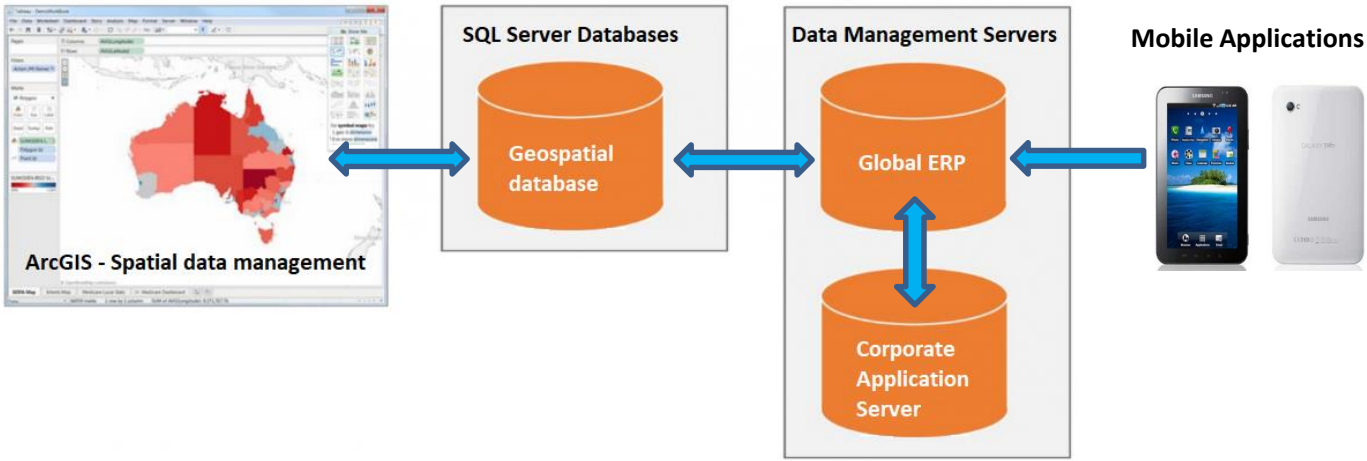
Plantation Operations (2)		
Category	**Operations layer**	**Financial layer**
Nursery Management	Production planning	
	Operations management	GL forecast
	* Work prescriptions	
	* Rate setting / detailed costing	
	* OHS documentation	
	* Work orders	Payroll
	* Purchase orders / contracts	Purchase orders
	* Stock requisition / stores	P/L, acc payable / receivable, stock
	* Quality control & acceptance	
	* Processing of invoices and payments	P/L, acc payable / receivable
Vehicles and machinery	Vehicle register	Asset register
	Maintenance program	
	Log book	VRA
	Fuel and other costs	VRA
	Fuel and other costs	
Workshop	Job management	
	Job costing	P/L, Asset register
	Stores	Stock

Requirements Breakdown

Environment and Social Services		
Category	**Operations layer**	**Financial layer**
ESMS	Documentation of standards	Corporate ESMS Reporting
	Auditing and compliance management	
	Chain of custody management	
	Certification documentation	
	Controlled external sources	
	Community dashboard	

Corporate Services		
Category	**Operations layer**	**Financial layer**
HR	Staff register	Corporate HR
	Medical records	
	Other	
Payroll	Terms of employment	Corporate Payroll
	Attendance record	
	Salary payment	
Finance		General Ledger
		Cashbook
		Asset register
		Profit and Loss
		Balance Sheet

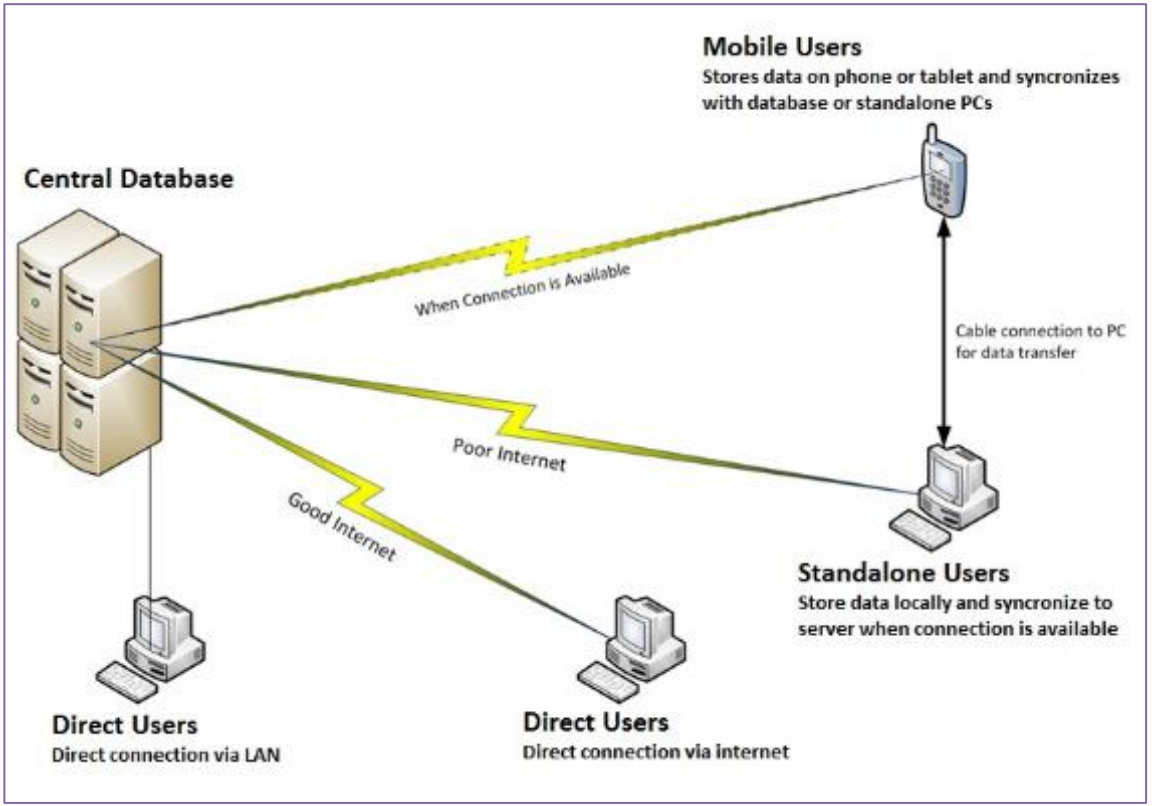
Global ERP Configuration



The systems configuration:

- Global ERP integrating the spatial data, operations data and mobile feeds
- Remote sensing and mapping will be implemented using ArcGIS. Geospatial data managed through a SQL Server backend database
- Mobile applications interface directly with Global ERP
- Global ERP interface directly with accounting, HR, and other corporate systems

Global ERP Infrastructure Setup



Live Systems Examples

1. Introduction to Global ERP Platform — **John Baird**

2. Operations systems — **George Kuru**

- Plantation register / GIS
- Census
- Plantation Upkeep
- Plantation Harvesting
- ESMS

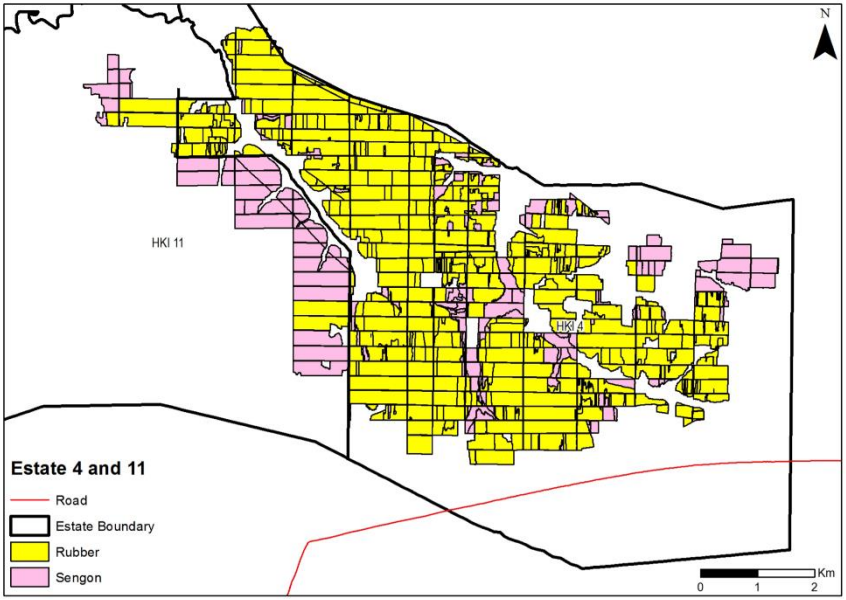
3. Other modules — **John Baird**

- Vehicles and machinery
- Workshop
- HR
- Payroll
- Interfacing to corporate systems

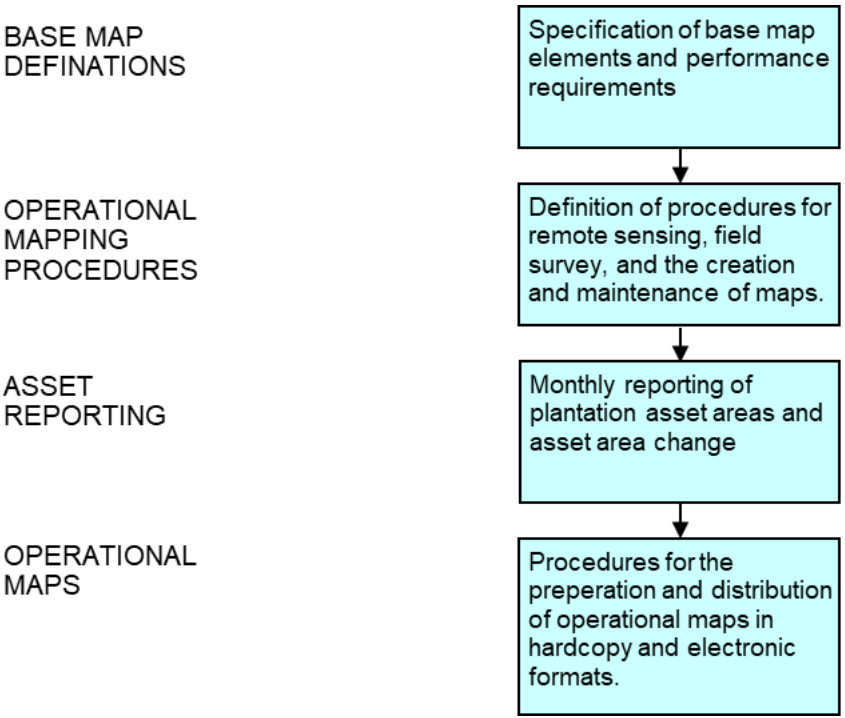
Plantation Register and GIS Solution

Ata Marie solution provides:

- Documented Standard Operating Procedures (SOPs) for plantation estate description and resource mapping.
- Detailed mapping of site variables such as soils, hydrology, infrastructure.
- Control system reporting plantation assets and mapping updates.
- Integration of the GIS with the plantation register module.
- Integration of the GIS with the operations planning and management module.
- Integration of the GIS with the plantation growth and performance monitoring module.



Plantation Register and GIS Requirements



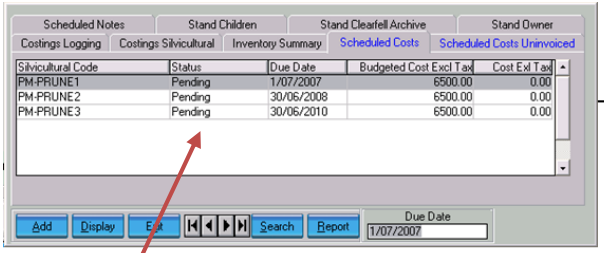
Resource Census / Inventory and Performance Measurement

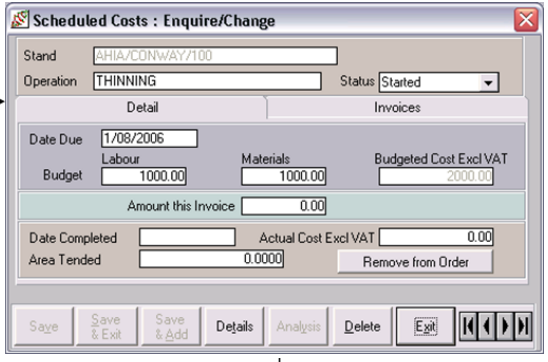
- Measurement and assessment of plantation growth and yield.
- Measurement of plantation rubber yields.
- Monitoring of plantation health
- Reconciliation of plantation performance against site, management history and genetics characteristics.

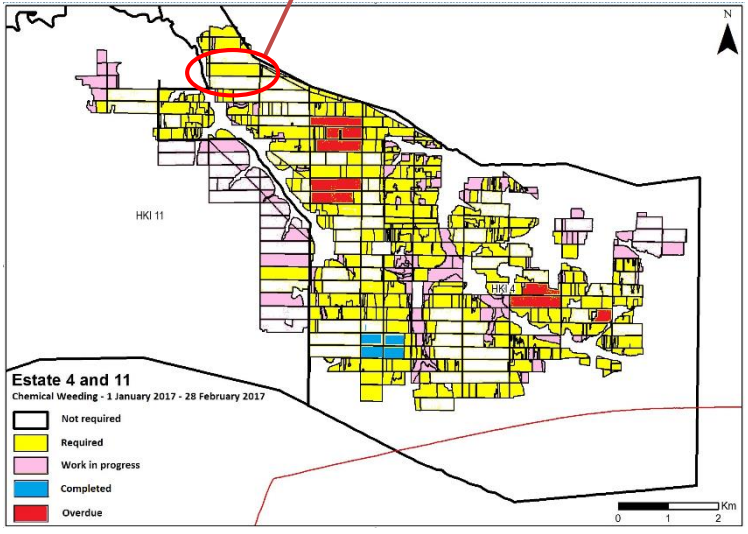
Plantation Upkeep and Nurseries Solution

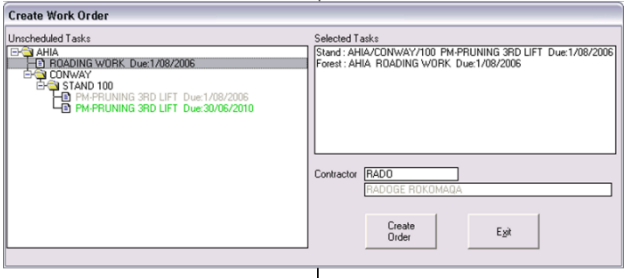
Ata Marie solutions provide:

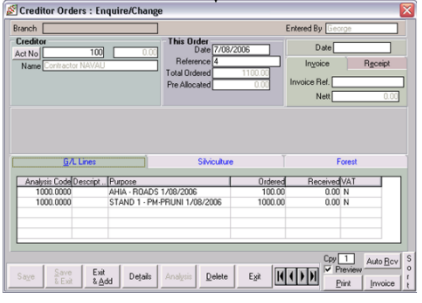
- Automated scheduling of operations and linkage to long term budget forecasting.
- Manual override and calibration of detailed work programs and integration with spatial mapping and financial budgeting.
- Integrated with materials procurement, contracting, and operational purchase / work orders.
- Quality control and acceptance functions integrated with accounts payable.
- Nurseries are managed through a separate module that follows similar operations processes as plantation upkeep.





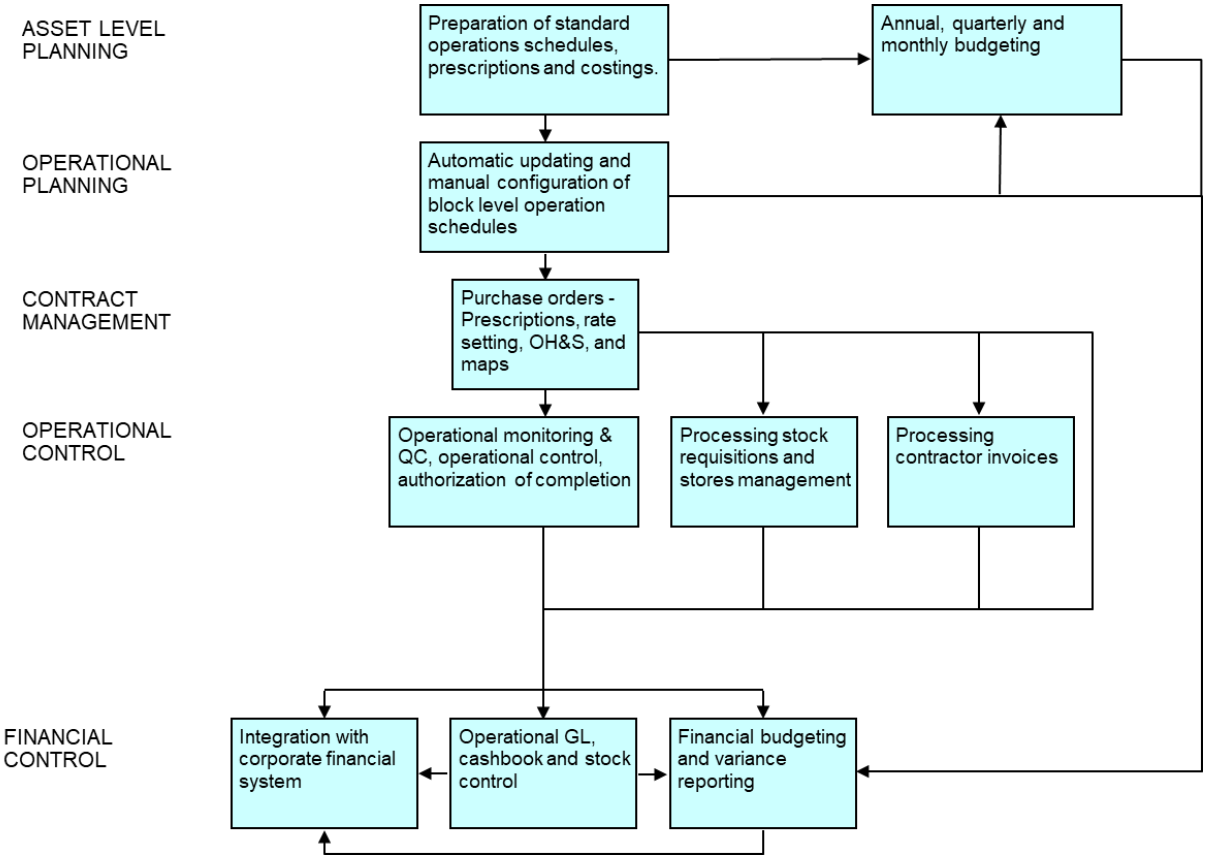






Integrated plantation upkeep planning and management

Plantations Upkeep Processes

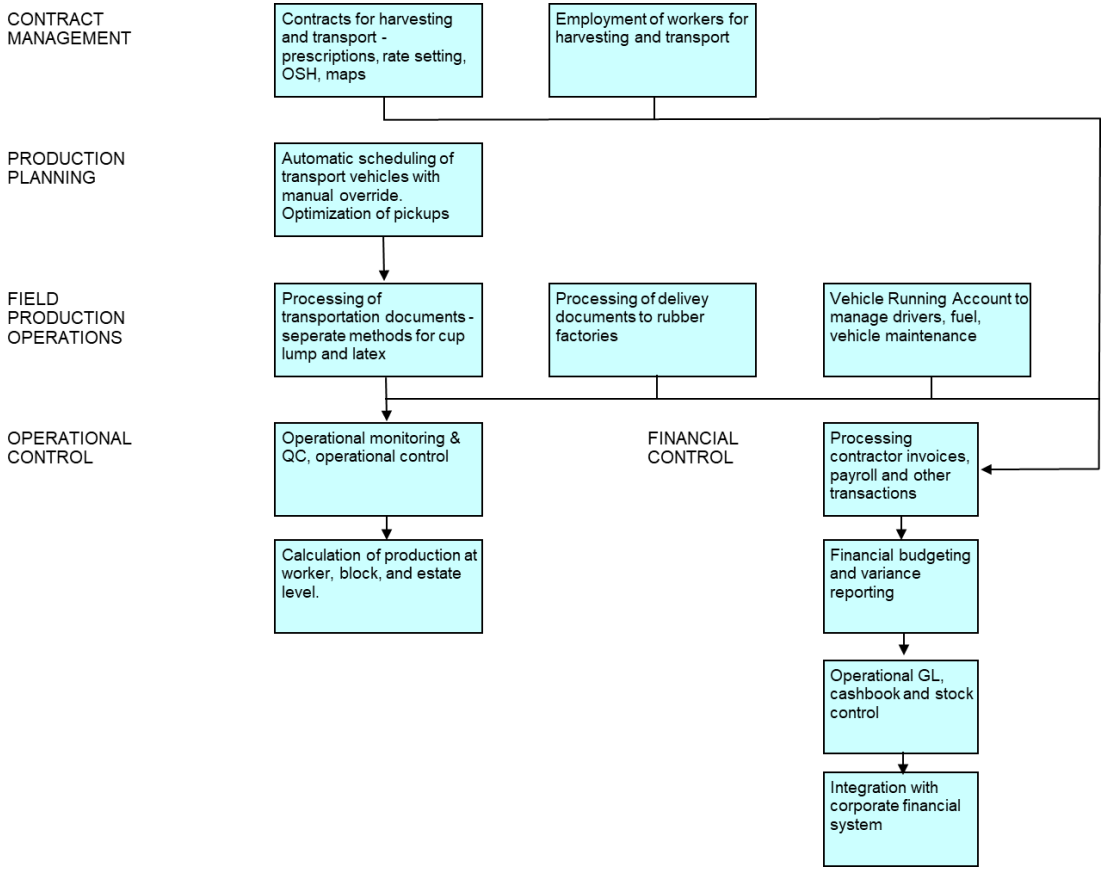


Plantation Harvesting Planning and Management

Rubber tapping activities are scheduled to commence in the next 1-2 years. Ata Marie solutions provide:

- Payroll function for internal wage workers.
- Contract management for external supply of tapping and transport functions.
- Function for calculation of cup lump and latex production and payment of workers and contractors.
- Reporting of plantation production by estate and block.
- Integration with payroll and accounts payable / receivable.

Plantation Harvesting Planning and Management Processes



In-Field Mobile Applications

- Mobile applications developed for plantation maintenance and production operations.
- The mobile apps developed in HTML & CSS using a Bootstrap UI Framework.
- The mobile applications have a responsive interface to various screen sizes, ranging for desktop (Windows and iOS) and mobile (Android and iOS).
- The mobile data is security controlled and synchronized over a secure ports.

Thank you!

For more information: www.ata-marie.com

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