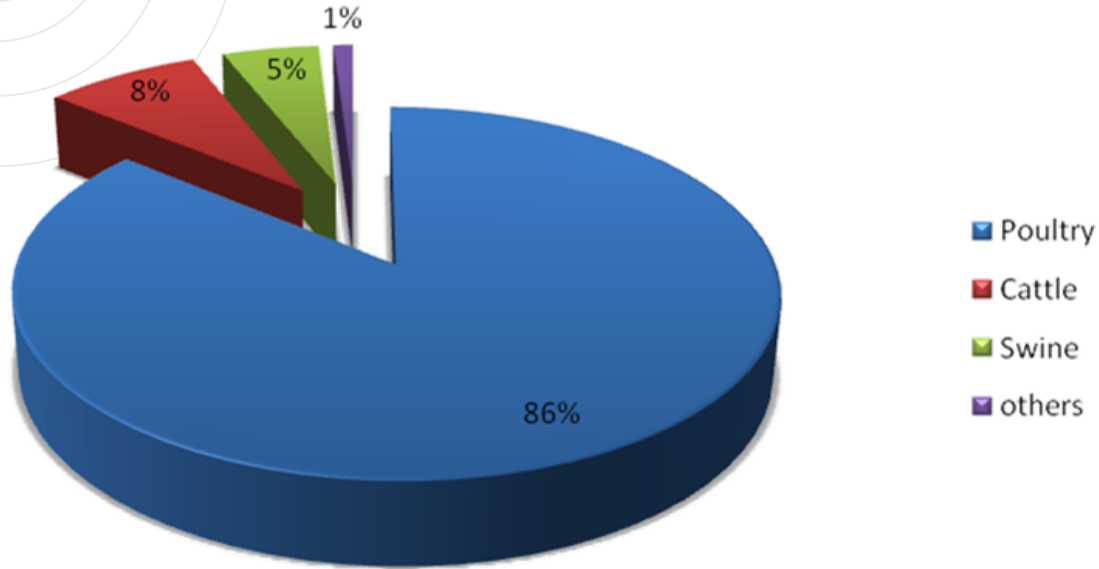




Digitalization in Poultry Logistics: **What do we Need ?**

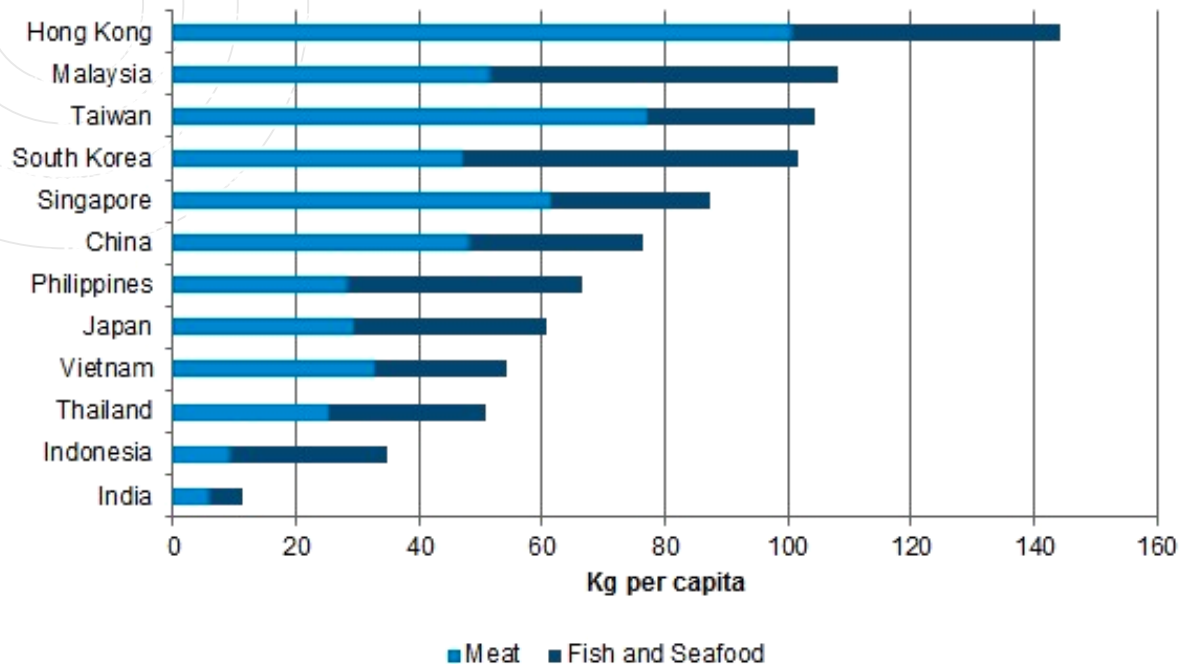
Ir. Audy Joinaldy, S.Pt, M.Sc, M.M, IPM, ASEAN.Eng

Poultry Business In Indonesia



As a Moslem – majority country, chicken and beef are the main choices

Prospect



Public consumption for chicken and beef in Indonesia are still low, especially in Southeast Asia, this is a business prospect since Indonesia is the 4th most populated country in the World

problems :

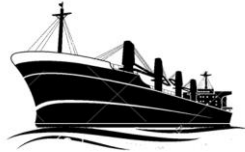
Indonesia is a maritime country (archipelago state)



as maritime country,
ofcourse we need to
use many varieties of
Logistics fleet as
planes, vessels, &
trucks

problems :

we need to use many varieties of logistics fleets



Many varieties of logistics fleets means that we have to spend a lot of resources & policies (Strategy & Cost)

There isn't yet a national standard for Poultry transportation in Indonesia (SNI), to maintain cost and to control the quality of animal welfare

All About Poultry Logistics

What do we considered ?

- ❑ Air Conditioning in container (Temperature & Humidity)
- ❑ Distance (from hatchery to farm)
- ❑ Delivery Lead time (duration of delivery)
- ❑ Truck Driver Ability (Safety Driving)
- ❑ Feeding treatment
- ❑ Population density in container
- ❑ Container Hygiene





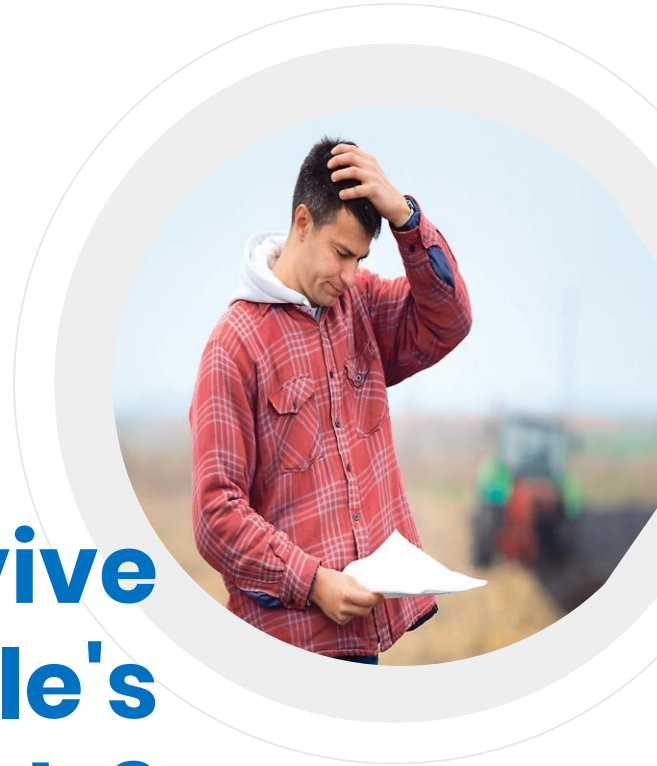
What Must be controlled ?

- ✓ **Air Temperature & Humidity controlling**
- ✓ **Truck Position update & Time target**
- ✓ **Safety driving monitoring**
- ✓ **Hygiene, feeding treatment, & Population density in container**

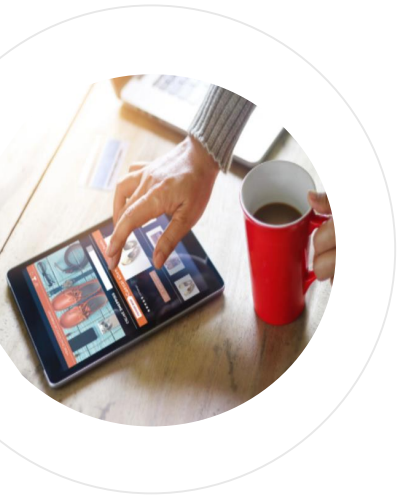
What do farmers depend of in present days ?

- Reliable Logistics company ?
- Driver honesty ?
- A complex Standard Operation procedure ?
- Written Contract ?

**for how long we can survive
from other people's
standards?**



**we need to follow updates
on digital & internet
technology**



What is clear is that
users own their
data and should
have control of how
their data is used.

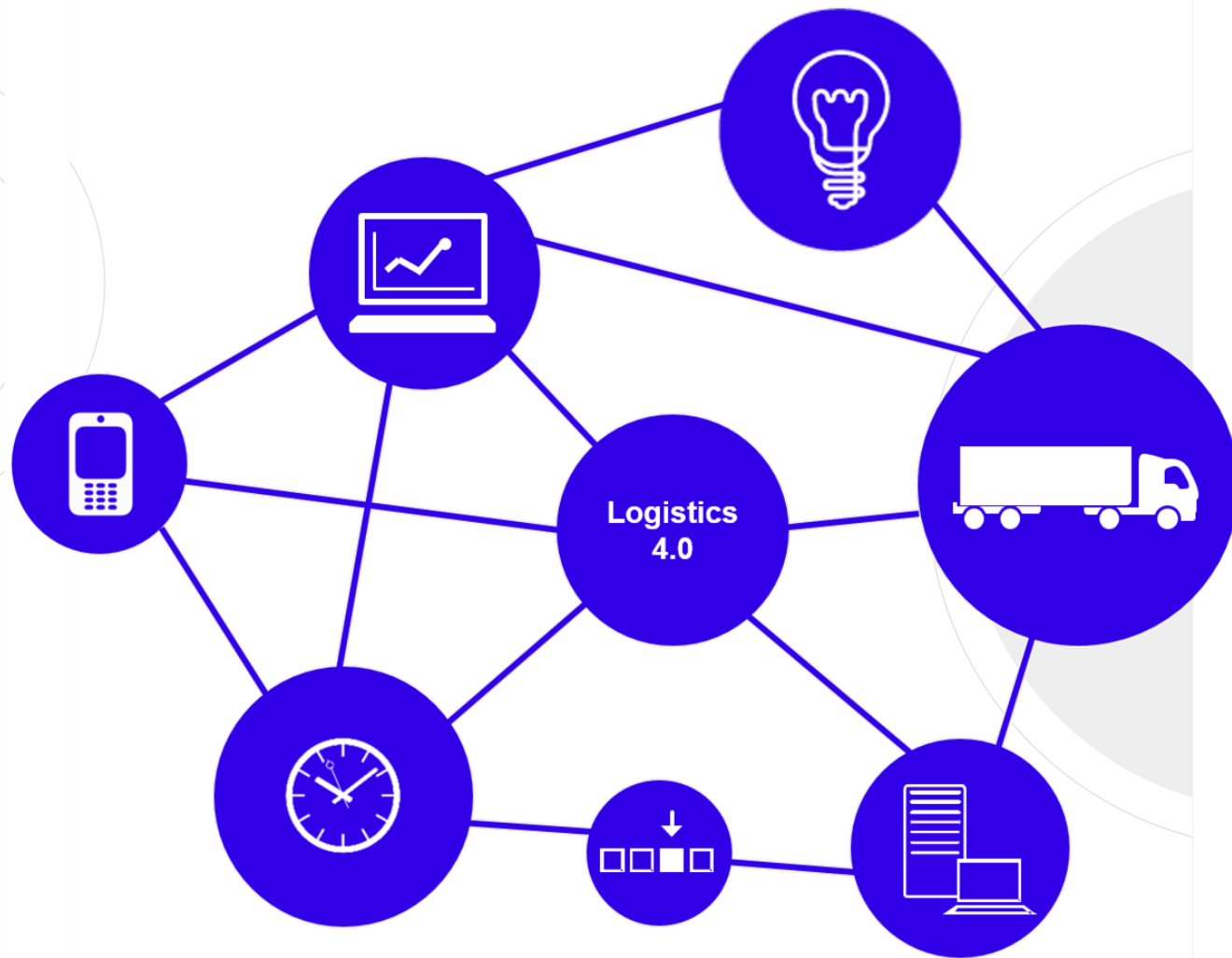
Marissa Mayer
President and Chief Executive
Officer, Yahoo, USA;
Young Global Leader





LOGISTICS

**NOW, We are Entering
the 4.0 Logistics Era**



What are The Advantages ?

REAL – TIME DATA

information that is delivered immediately after collection. There is no delay in the timeliness of the information provided.

COST
Efficiency

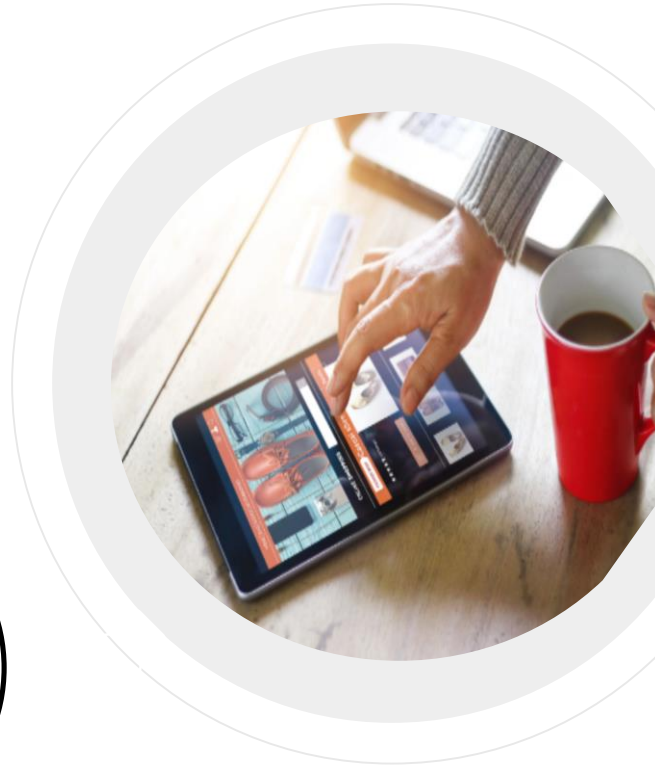
**IMMEDIATELY QUALITY
CONTROL &
EVALUATION**

HUMAN ERROR



What do we need ?

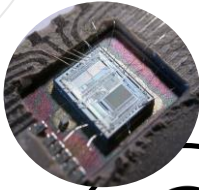
- Digital Technology
- Internet Of Things (IoT)
- Big Data Management & Analyzed



Air Temperature & Humidity monitoring in container

Microcontroller based RFid

Changing the raw condition temperatur & humidity data into digital signal and than send it to the control center & data management.



Control Center & Data Management

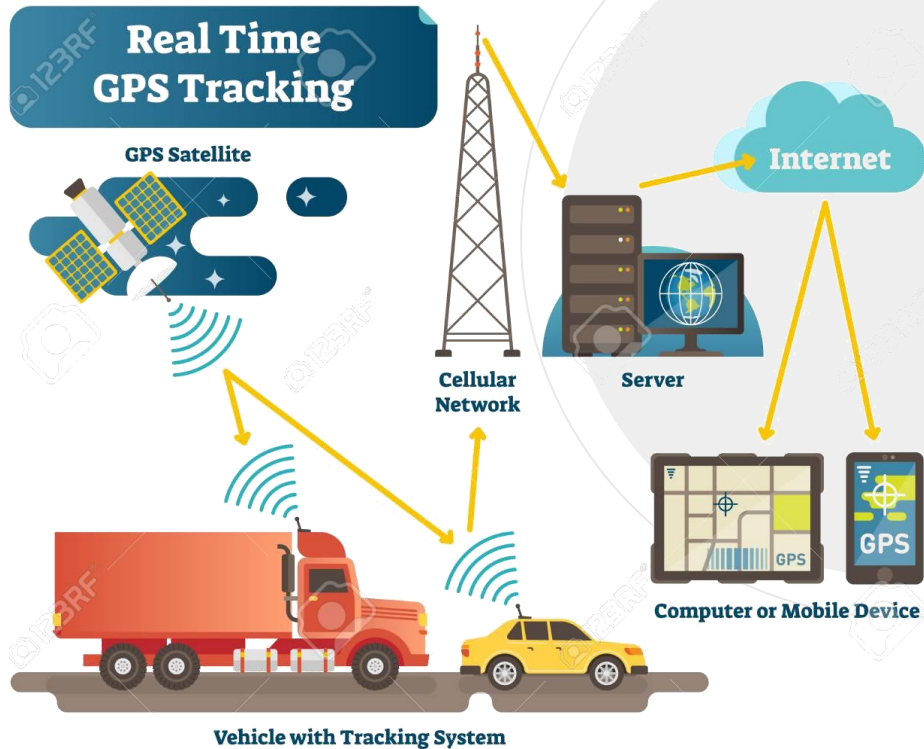
Receiving temperature & humidity data from microcontroller that was planted inside the truck container



Truck Positioning updater

GPS /Global Positioning System

uses a signal processor to receive low-power satellite signals and calculate positioning. It can then transmits that information either through a cellular network or a long-range system



Visual Control by real-time CCTV

Allows us to monitor :

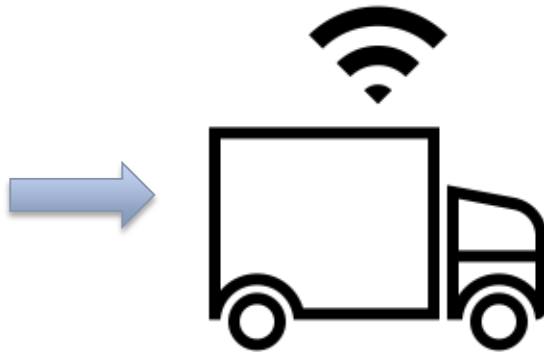
Hygiene
Population density
Frequently Feeding
And ather treatment
on delivery period



Safety Driving monitoring



**Speed Alarm
Smart App**



**Internet of
Things**



Data Management

VOLUME

Huge amount of data

VERACITY

Inconsistencies and uncertainty in data

VARIETY

Different formats of data from various sources

VELOCITY

High speed of accumulation of data

VALUE

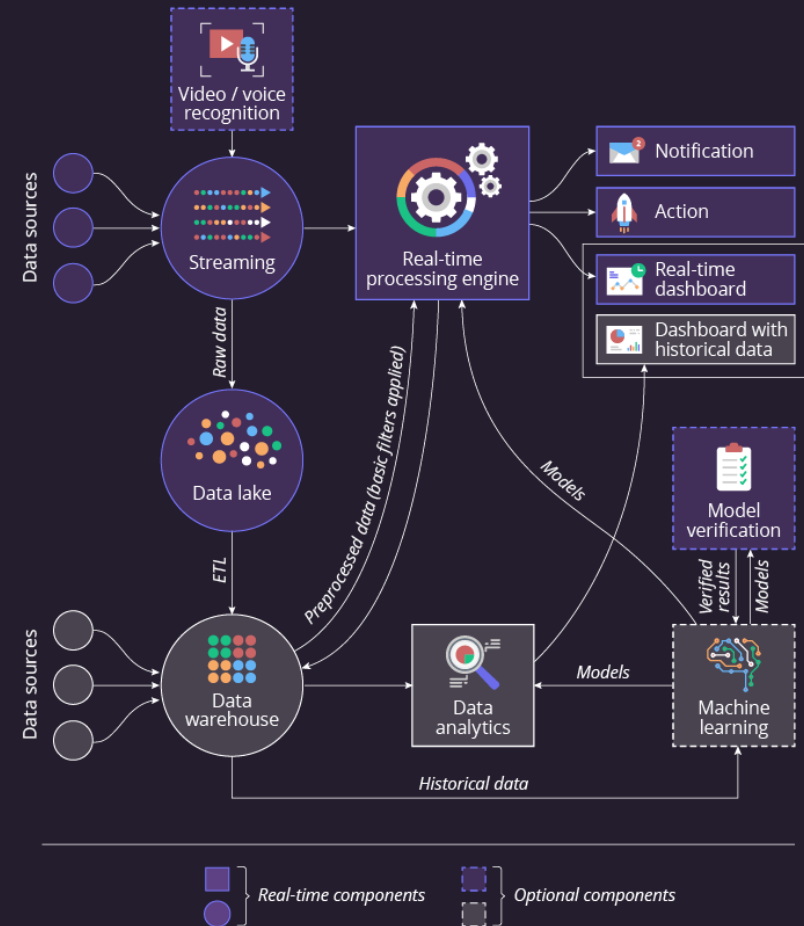
Extract useful data



BIG DATA Management

- ✓ **BIG DATA** contains a big volume, variety, and high velocity of data.
- ✓ **Big data analytics** is the whole process of gathering, tidying, analyzing big data so that valuable information is obtained to help determine a decision or the sustainability of a system.
- ✓ **It** allows us to predict logistics strategic decisions from a group of massive data that came into the data management from digital recording transferred.

REAL-TIME BIG DATA ANALYTICS ARCHITECTURE



The background of the slide is a photograph of a person standing on a hill, silhouetted against a bright sunset or sunrise sky. The sky transitions from a deep blue at the top to a bright orange and yellow near the horizon. The person is standing on a dark, silhouetted hill with some sparse vegetation. The overall mood is contemplative and inspiring.

IT'S NO LONGER THE BIG BEATING THE SMALL,
BUT THE FAST BEATING THE SLOW.

ERIC PEARSON, CIO, INTERNATIONAL
HOTEL GROUP (IHG)



Thanks!

Any questions?