

(THE DEVELOPMENT OF *CATTLE TRACEABILITY SYSTEM*)



Research Team

Kudang Boro Seminar

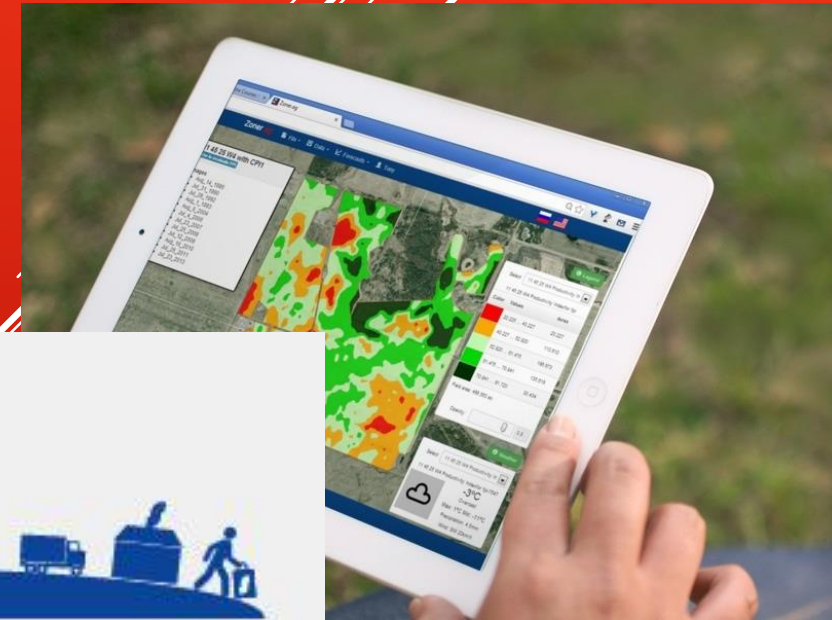
Ahmad Yani

Ririn Lucia

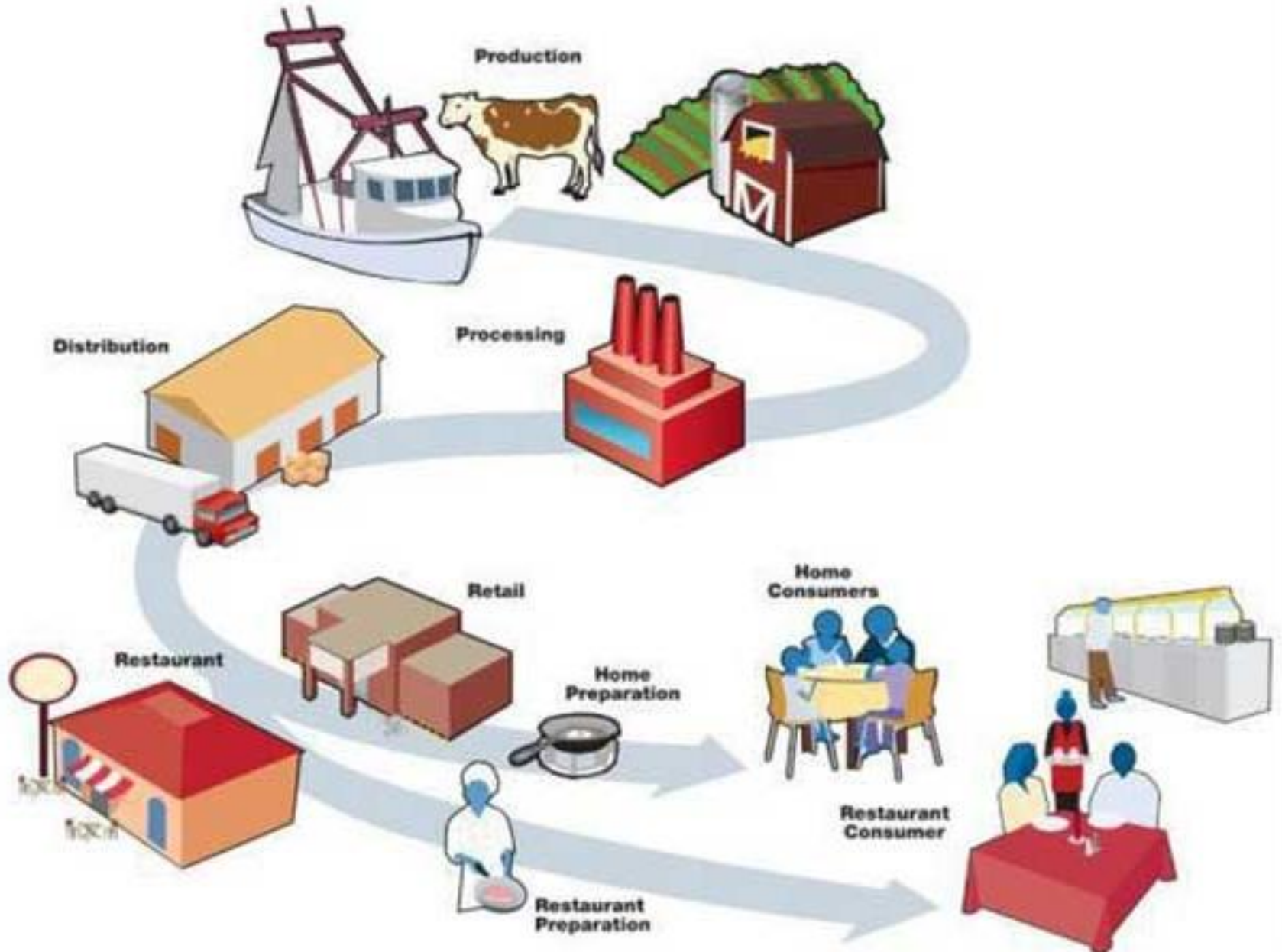
Edit Lesa Aditya

Diki Gita Purnama

Harry Imantho



AGROINDUSTRI



Systematic, integrated and sustainable agricultural activities from upstream to downstream (*from land-to-table*)

Cases of Meat Counterfeiting

REPUBLICA.co.id
Sabtu, 23 Januari 2014 14:42 / 02 Maret 2019

HOME NEWS KHAZANAH INTERNASIONAL EKONOMI REPUBLIKOLA LEISURE KOLOM REPUBLIKA TV

Keep Your Kids' Device Use Fun
Simple & Clean User Interface
Devices. Protect Your Child

Daging Sapi Palsu Marak, Pemerintah Wajib Lakukan Pengawasan

Selasa 04 Nov 2014 09:50 WIB
Revisi: Aji Handayani Red: Zamhuri Zuhri



Pelapang daging sapi di pasar Jember, Jawa Timur. (Republika/Prayogi)

REPUBLICA.CO.ID, JAKARTA -- Anggota Pengurus Harian Yayasan Lembaga Konsumen Indonesia (YLKI) mengatakan praktik-praktik pemalsuan daging



Surabaya.tribunnews.com

KOMPAS.com
JERNIH MELIHAT DUNIA

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NEWS MONEY BOLA TEKNO SAINS ENTERTAINMENT OTOMOTIF LIFESTYLE PROPERTI TRAVEL EDUKASI

BAGIKAN: f t Mafia Sapi Ada di Hulu-Hilir

PROMO SPESIAL Diskon 50% Layanan Inspeksi Mobil

Periode 22 Feb - 10 Mar 2019		
Regular	Premium	Luxury & Older
-Rp 415.000- Rp 239.000	-Rp 475.000- Rp 289.000	-Rp 675.000- Rp 339.000

Home / **Tekno / Bisnis & Keuangan**

Mafia Sapi Ada di Hulu-Hilir

Kompas.com - 13/02/2013, 07:32 WIB

tokopedia

JAKARTA, KOMPAS.com - Mafia sapi ada di hulu dan hilir. Mereka melakukan kejahatan mulai dari memalsukan dokumen, penghindaran pajak dan bea masuk, pelanggaran kuota, hingga mengubah aturan impor. Akan tetapi, hingga sekarang para pelaku masih bebas berkeliaran.

JALAN BERLIKU MENUJU MANDIRI DAGING

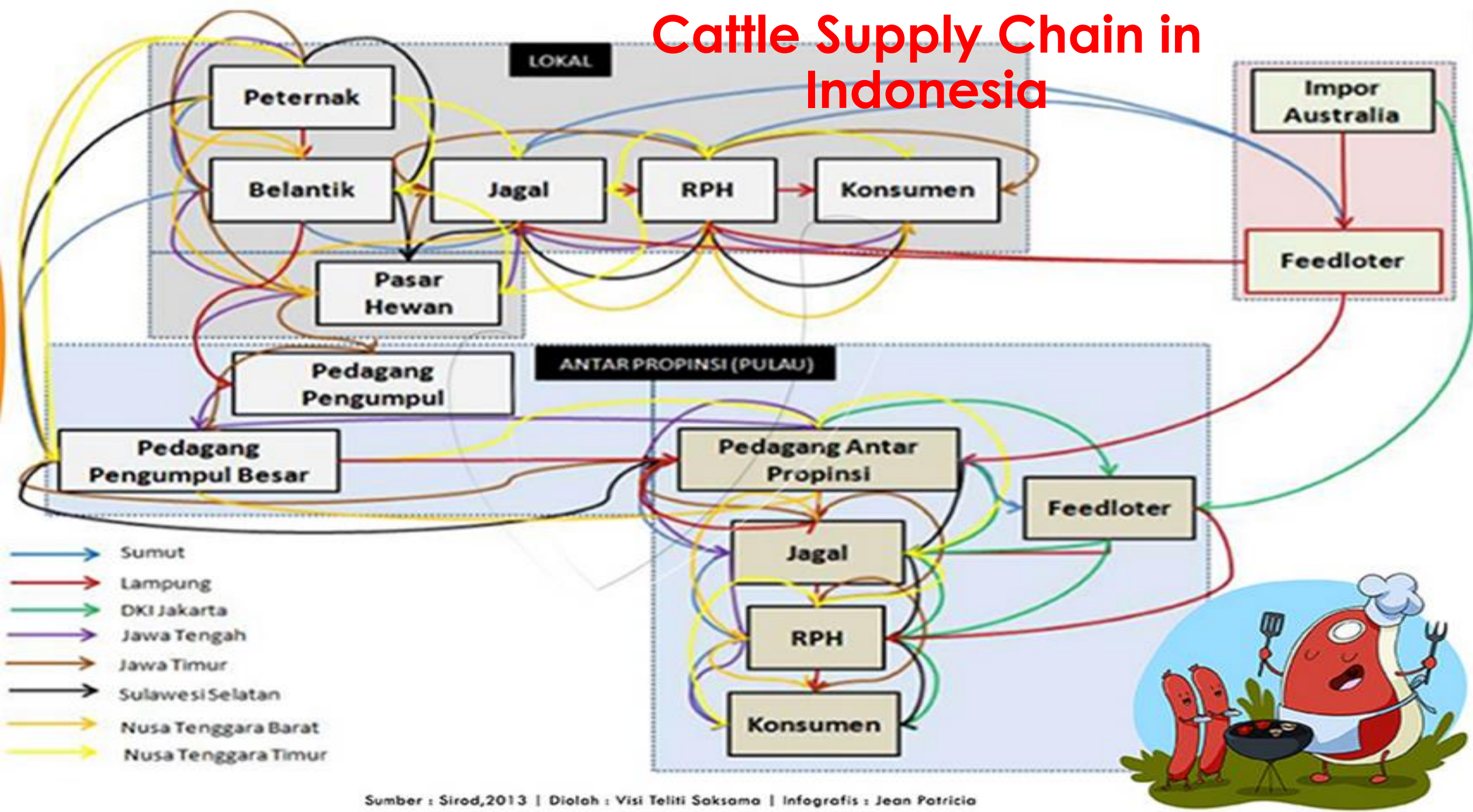
Harga Tinggi Terhambat Distribusi

Rantai pasok daging sapi di Indonesia dibedakan antara daging sapi asal ternak sapi lokal, daging sapi asal ternak sapi impor (dari Australia) dan daging sapi asal daging beku impor (dari Australia, Selandia Baru, dan lain sebagainya). Daging sapi lokal berasal dari sapi yang dikembangbiakkan di berbagai daerah di Indonesia, seperti dari NTB, NTT, Sulawesi Selatan, Lampung, dan Jawa.

🕒 02 Oktober 2017 , 21:00



Cattle Supply Chain in Indonesia



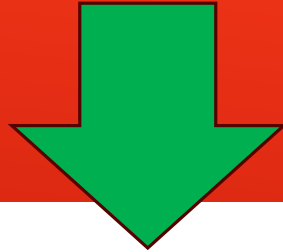
WHAT CONSUMERS WANT ABOUT FOOD



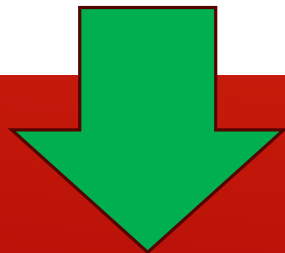
- ❖ **Safe**
- ❖ **Healthy**
- ❖ **Wholeness**
- ❖ **Lawful**
- ❖ **Affordable**



PROPOSED SOLUTION



IT-Solutions
ENHANCE YOUR BUSINESS



DEVELOPMENT OF *e-TRACEABILITY SYSTEM*

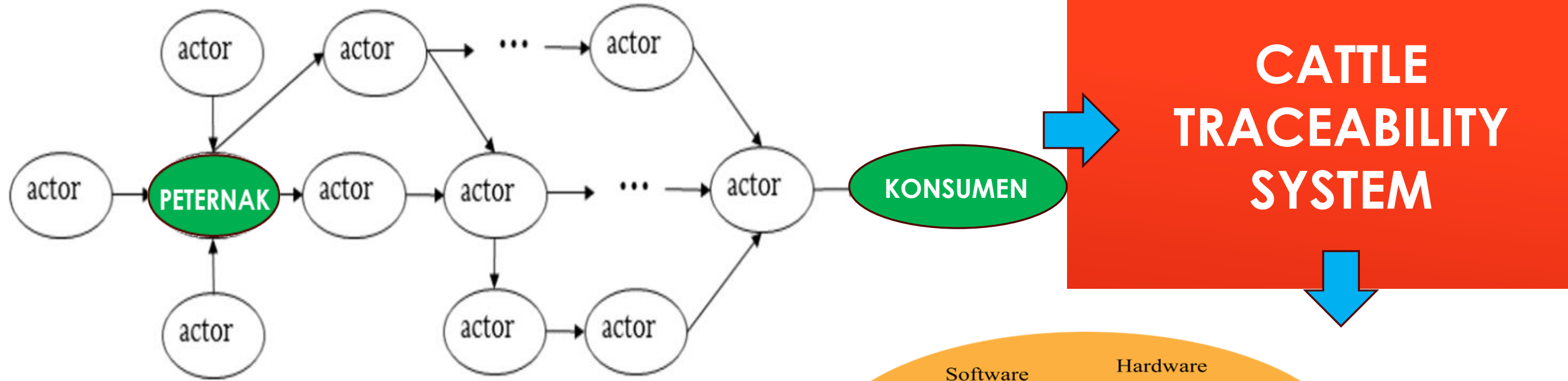


Traceability Defined

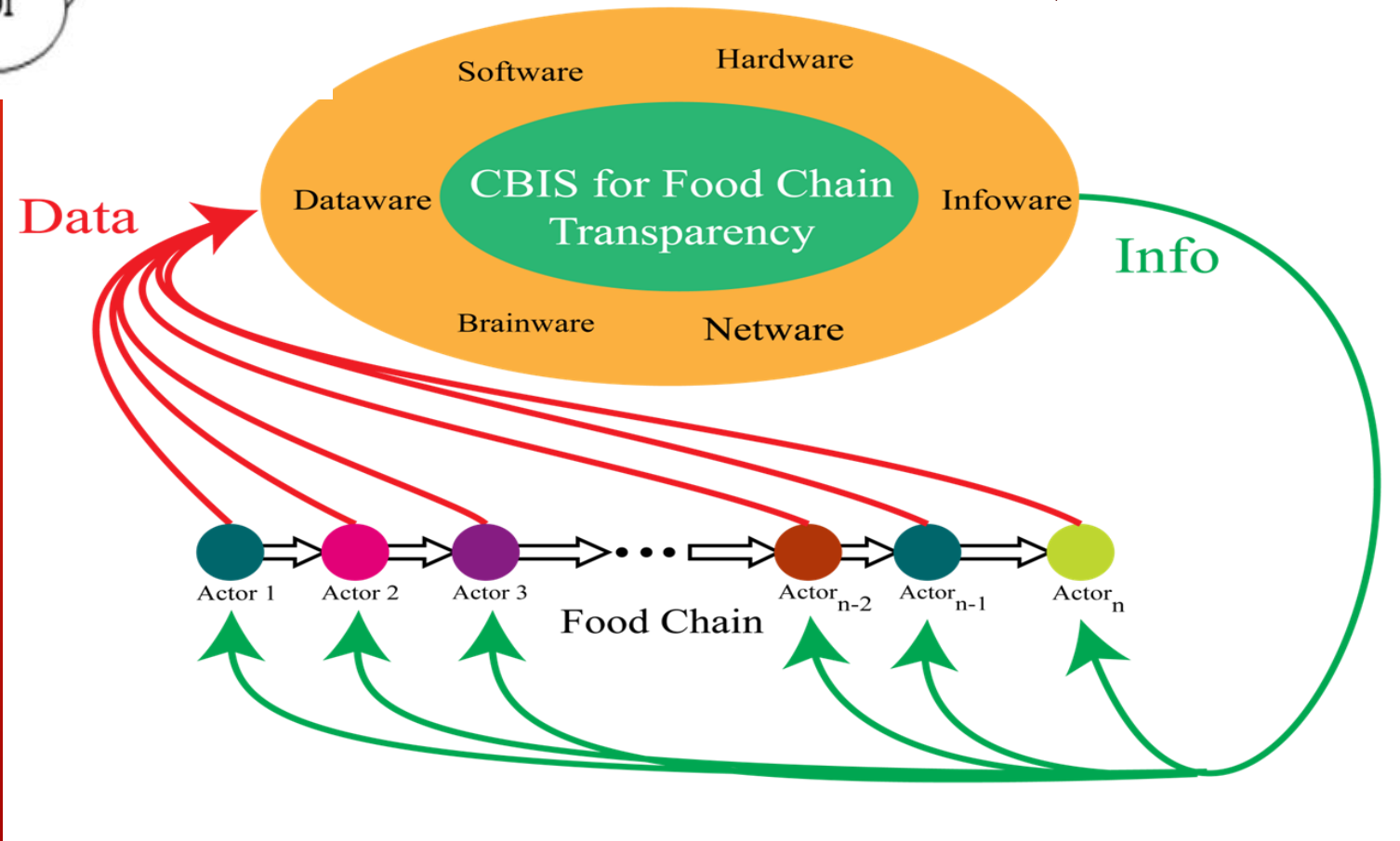
Definition of traceability that guided the research:

“The ability to access any or all information relating to that which is under consideration, throughout its entire life cycle, by means of recorded identifications”

(Olsen & Borit, 2013)

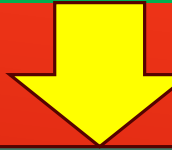


- ADVANTAGES:**
- ✓ Semua aktor terdaftar
 - ✓ Semua aktor terhubung
 - ✓ Semua aktor terpadu
 - ✓ Semua ternak terdaftar dg e-ID
 - ✓ Transparansi ternak meningkat
 - ✓ Kemudahan pemantauan & kontrol
 - ✓ Data ternak tersedia untuk diakses oleh pemangku kepentingan
 - ✓ Bahan analisis dan pengambilan keputusan
 - ✓ Jaminan sesuai prosedur & aturan



DEVELOPMENT OF e-TRACEABILITY SYSTEM FOR CATTLE

Started with e-ID for Cattle



Non-Digital

Ear tag



Ear notching



Cap bakar



Digital

Electronic Ear Tag

- RFID



Microchip

- Bulus



Electronic Collar



TAG RFID

Wristband Tag HF and UHF RFID

EAR TAG WRISTBAND LAUNDRYTAG

Beberapa pilihan label RFID dari sisi model, brand, tipe aset dan juga budget, sehingga dapat memenuhi setiap permintaan dari para klien



READER RFID

Reader RFID Handheld, Fix, and Long Range

CSL CLOE CHAINWAY

Beberapa pilihan reader RFID dari sisi model, brand, fungsi dan juga buget, sehingga dapat memenuhi setiap permintaan dari para klien



CS108



CS203



CL7206 B2



CL 7206 K3



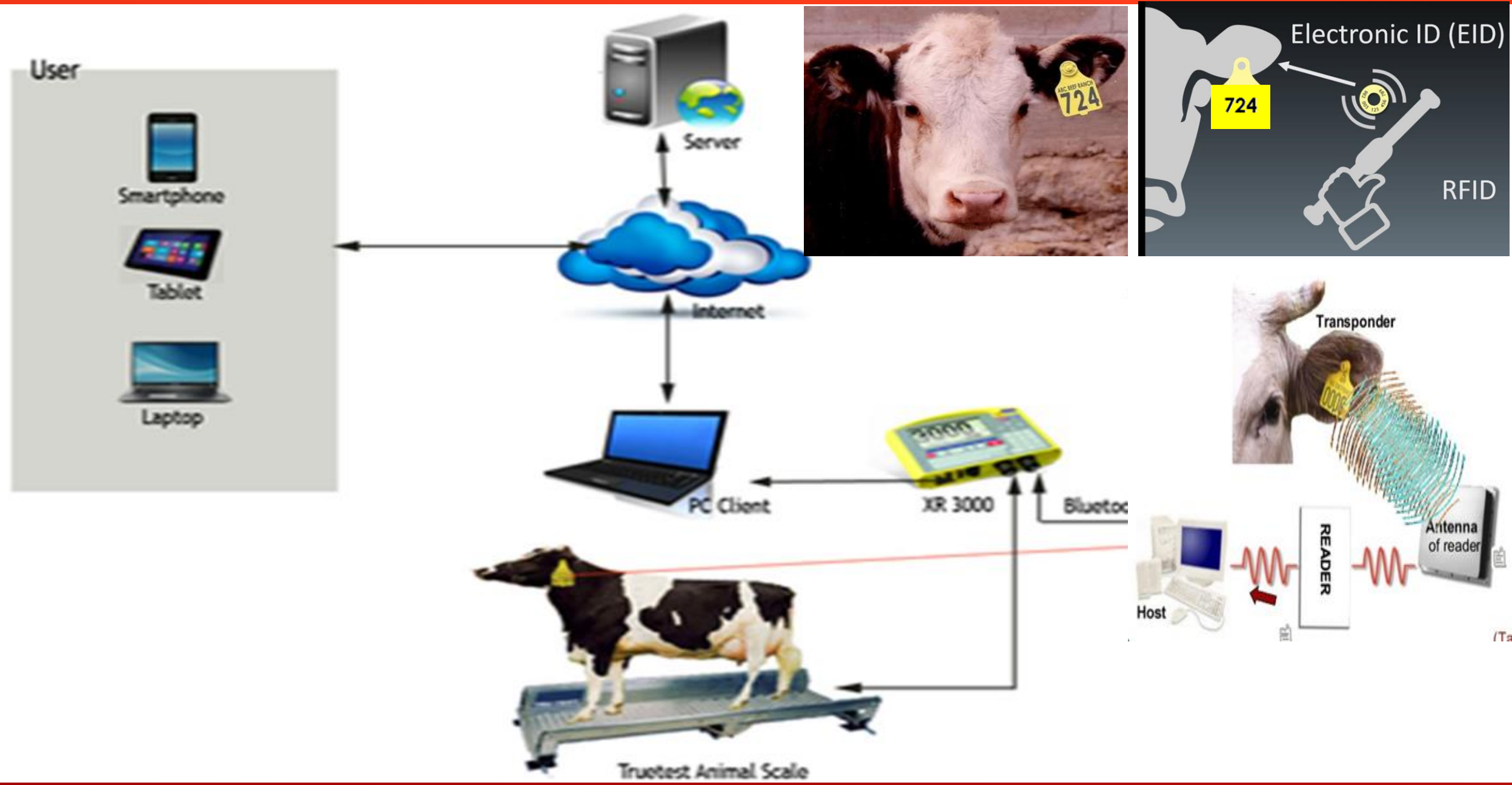
CL7206 C4



C - 72



SEVERAL ACTIVITIES OF CATTLE RECORDING USING e-ID



RECORDING & REPORTING OF CATTLE



SISTEM INFORMASI PENCATATAN DAN PERENCANAAN STOK SAPI POTONG NASIONAL

Home Data Sapi Data Master Perencanaan Report User Login : Administrator

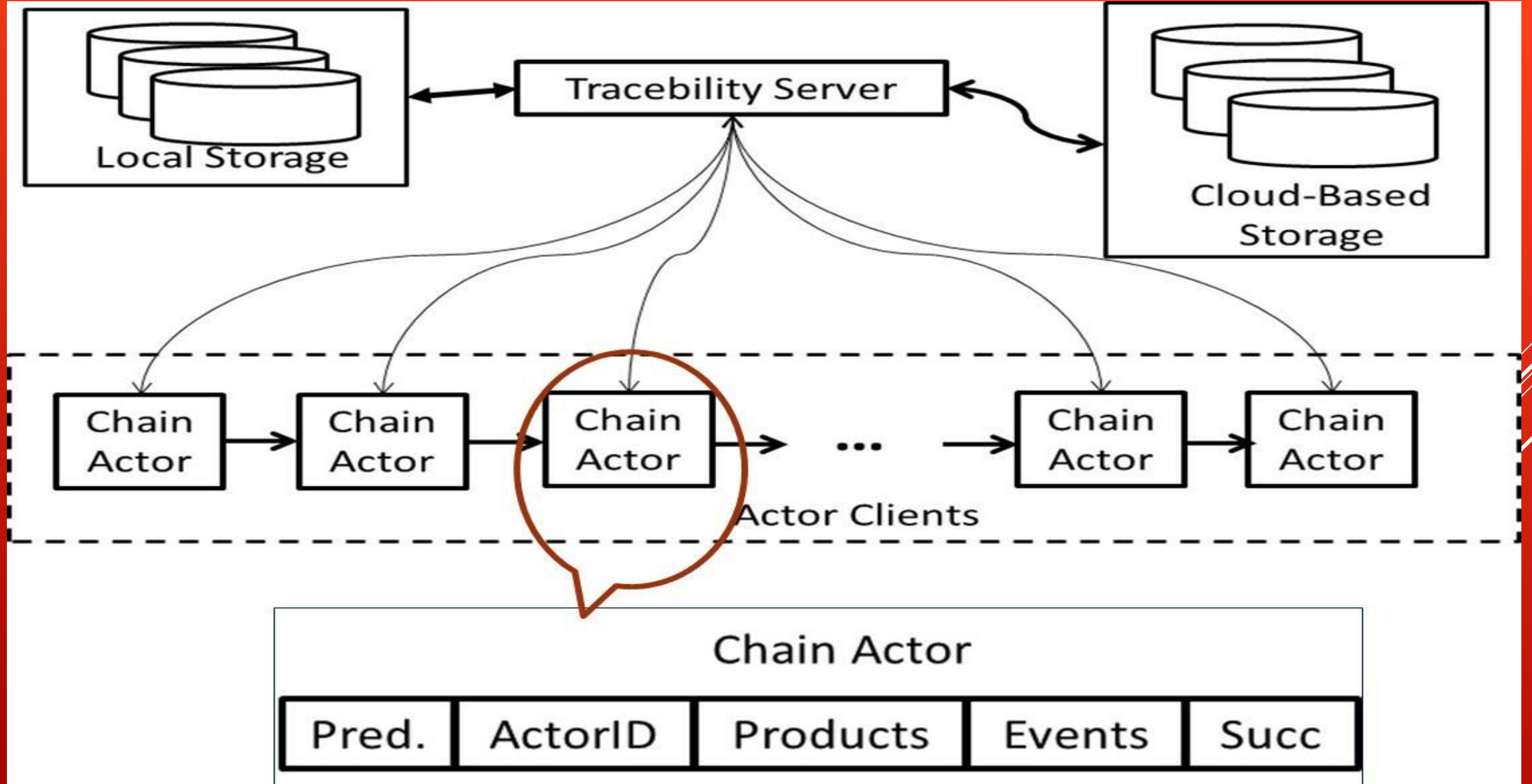
Data Sapi

Search : by

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- JAWA BARAT
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- KALIMANTAN UTARA
- IRIAN JAYA
- DI ACEH
- BALI
- SULAWESI SELATAN
- SULAWESI UTARA
- SULAWESI TENGAH
- JAMBI

No	Disnak	ID Telinga	Pejantan	Induk	Bangsa	JK	Negara	Bobot	Umur	Karkas	PDaging	Beranak	Status	
1	BOGOR	1002	11020	121209	BALI	Betina	INDONESIA	11 kg	4 hari	5.94 kg	2.08 kg	0 kali	UNVERIFIED	
2	BOGOR	BGR00101	BGR00043	BGR00033	MADURA	Betina	JEPANG	11009.25 kg	14679 hari	5284.44 kg	1585.33 kg	0 kali	UNVERIFIED	
3	BOGOR	BGR2234	BGR00101	CIA1234	BALI	Jantan	CHINA	22018.5 kg	14679 hari	11889.99 kg	4161.5 kg	0 kali	UNVERIFIED	
4	BOGOR	1	BGR2001	CIA29201	BALI	Jantan	INDONESIA	22018.5 kg	14679 hari	11889.99 kg	4161.5 kg	2 kali	UNVERIFIED	
5	BOGOR	BGR0102	1002	CIA29201	BALI	Betina	INDONESIA	22018.5 kg	14679 hari	11889.99 kg	4161.5 kg	0 kali	UNVERIFIED	
6	BOGOR	BGR01111	BGR0102	CIA29201	MADURA	Betina	INDONESIA	11009.25 kg	14679 hari	5284.44 kg	1585.33 kg	0 kali	UNVERIFIED	
7	BOGOR	BGR012222	BGR2001	CIA29201	MADURA	Jantan	INDONESIA	11009.25 kg	14679 hari	5284.44 kg	1585.33 kg	2 kali	UNVERIFIED	
8	BOGOR	BGR013333	BGR2001	CIA29201	MADURA	Jantan	INDONESIA	11009.25 kg	14679 hari	5284.44 kg	1585.33 kg	2 kali	UNVERIFIED	
9	BOGOR	BGR01	BGR2001	CIA29201	MADURA	Betina	INDONESIA	11009.25 kg	14679 hari	5284.44 kg	1585.33 kg	0 kali	UNVERIFIED	
10	BOGOR	BGR02	BGR2001	CIA29201	MADURA	Jantan	INDONESIA	11009.25 kg	14679 hari	5284.44 kg	1585.33 kg	2 kali	UNVERIFIED	

ARCHITECTURE OF e-TRACEABILITY SYSTEM



HALAMAN LOG-IN SISTEM KETERLACAKAN TERNAK

Cattle Geo-Traceability

Login

Pastikan kode captcha telah benar.

ksrantina1@gmail.com



I'm not a robot



reCAPTCHA
Privacy - Terms

Login



Find me, know me and supervise me.

— Compliance - Accountability - Speed - Efficiency

Contoh Tampilan Laman Utama Rantai Produksi Sapi NTT-JKT




Indonesia | English

Search...


Beranda


Kantor Karantina


Informasi Terkini

 **6**
Ternak Sapi
Tampilkan Detil

 **3**
Peternak Sapi
Tampilkan Detil

 **4**
Grup Peternak Sapi
Tampilkan Detil

 **2**
Pedagang Pengumpul
Tampilkan Detil

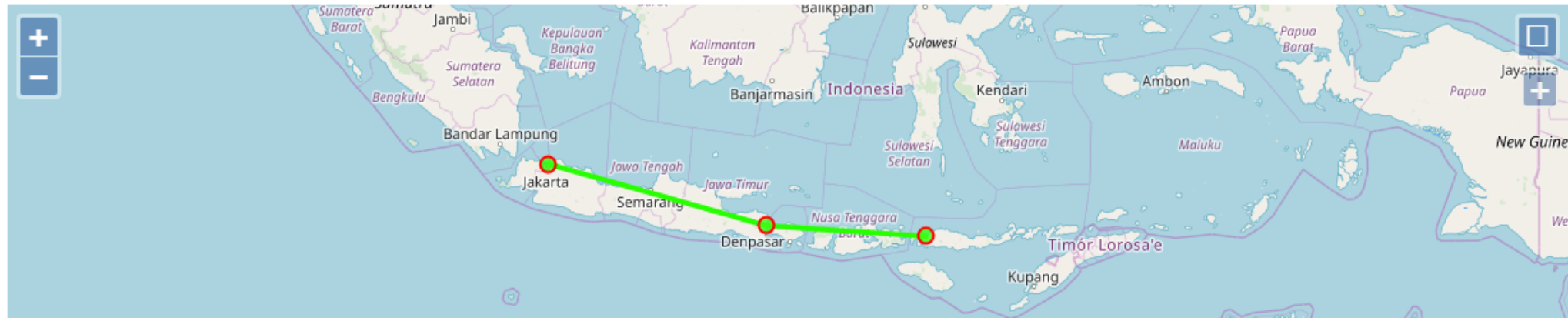
 **2**
Pedagang Antar Pulau
Tampilkan Detil

 **2**
Dokter Hewan
Tampilkan Detil

 Kapal Camara
Tampilkan Detil

Geo-Traceability

Klik pada titik dan garis untuk menampilkan detail informasi



*Development of IT-based
Traceability System to Support
the Optimal Use of Camara Ships
to Improve Efficiency of
Livestock Transportation System*

RESEARCH OUTPUT

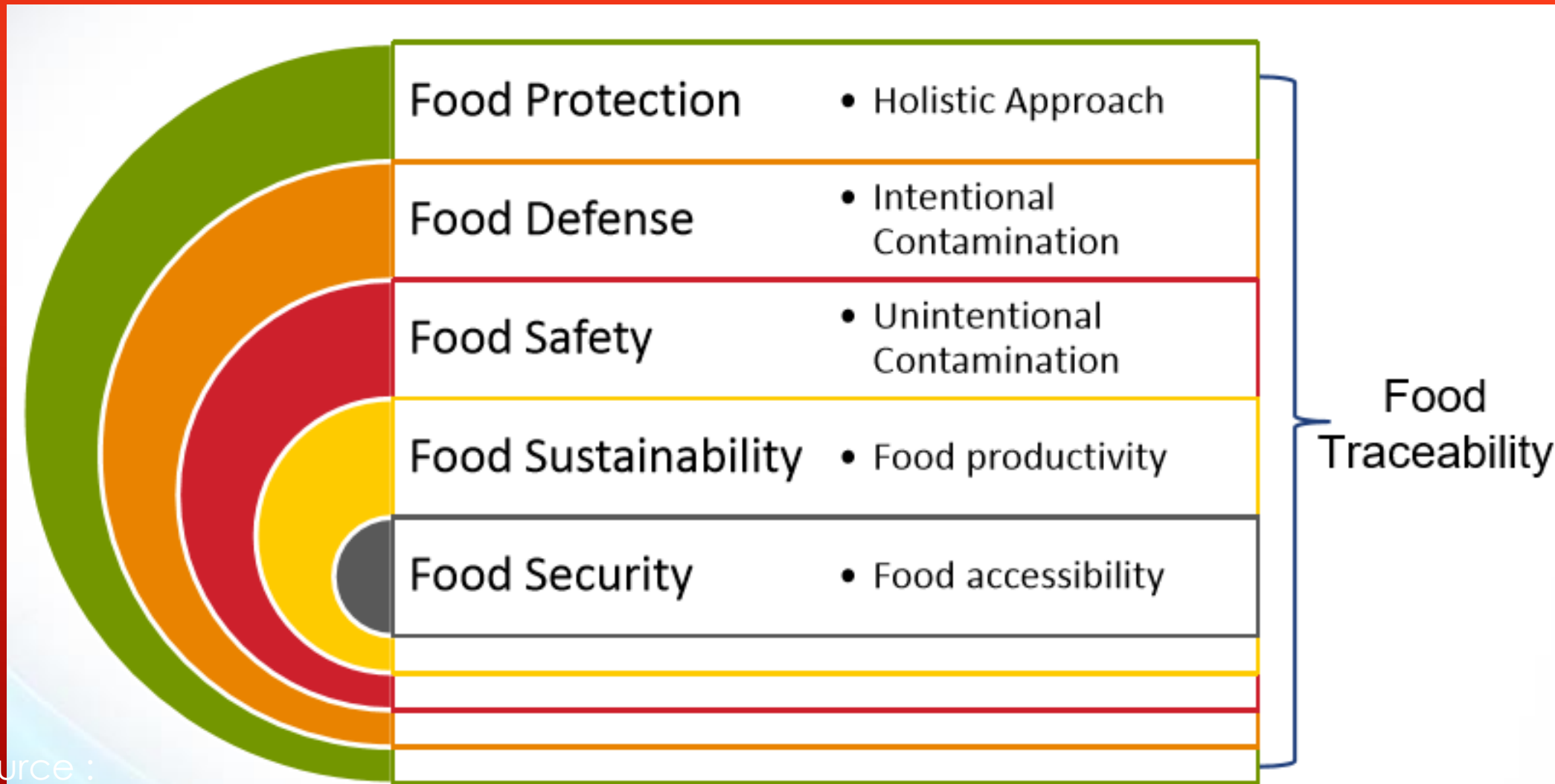
- ❖ Web-Based Prototype of e-Traceability System for Cattle
- ❖ Submitter & Reviewed Paper (Scopus Indexed) di Journal of Tropical Animal Science
- ❖ PhD Advanced Research Subject
- ❖ To be proposed for 111 Most Prospective Innovation to BIC & Minister of Research & Higher Education

DISCUSSIONS

The tracking system enables upstream downstream integration and backward tracing, to diagnose products (where they come from, disease history, shrinkage diagnosis and damage), and product forward analysis (product planning, destination in supply, economic value and product selling power, as well as volume and price predictions).

Looking ahead, recording livestock genomic data through the traceability system enables the genetic selection of superior livestock, superior cattle crossing and various genetic engineering needs

Fundamentals of Traceability



WORLD TRACEABILITY CONCERNS

EU/EFTA Countries — Receiving a **superior rating**, these countries' regulations address traceability across a large spectrum of foods, both domestically and imported foods. Because of the adoption of EU laws, these countries are viewed as frontrunners in global food traceability

Canada — Receiving an **average rating**, Canada's traceability requirements are being made stronger through livestock identification practices. Despite these efforts, a national food traceability system beyond livestock has yet to take shape.

Japan — Receiving an **average rating**, the country's beef labelling law only applies to domestic products, not imports. However, the government of Japan is adopting new traceability rules on rice and other food commodities, putting the country on the rise in food traceability practices

The United States — FSMA is expected to **significantly improve food traceability requirements** for the U.S., but creating these regulations is still in the development phase. Identification and labelling requirements for packaged foods are high, but the U.S. is one of the only major producers of beef that does not have a livestock identification or traceability system. Because of this, the U.S. received an average rating.

DATA-DRIVEN DECISION MAKING & ACTING



“Data is the fundamental building block of smart farming, whether the data comes from a soil sample or a satellite correction signal.”

By generating detailed insights, farmers can make data-based operational decisions that will optimize yield and boost revenue while minimizing expenses and the chances of crop failure.

MANIFESTATION OF IPB STRATEGIC CONCEPT:

AGRO-MARITIM 4.0



MANAGERIAL IMPLICATION OF E- TRACEABILITY SYSTEM

- ▶ There needs to be a government role in making policies and rules about identifying livestock and actors
- ▶ There are benefits, especially farmers in obtaining profits from selling cows by entering the application system
- ▶ The need for the strength and honesty of all parties based on the legal aspects of the government in entering and recording data with the traceability system
- ▶ The traceability system is ideally managed by the government, but can be started from industry groups or cattle farmer groups
- ▶ It is necessary to collaborate with many parties to help develop systems and equipment so that all farmers can use the application. There are also training services for farmers or farm families and farmer groups on the use of cow traceability technology.

ACKNOWLEDGEMENT

- ❖ ALIN
- ❖ NUFFIC & IPB University
- ❖ FLPI
- ❖ FAPET IPB
- ❖ Fateta IPB
- ❖ DISNAK PROV. NTT & Kabupaten Kupang
- ❖ Balai Karantina Pertanian Kelas I Kupang
- ❖ PD DHARMAJAYA
- ❖ PT Elders Indonesia
- ❖ Pelni, P2HNak, Sapi Bagus.com
- ❖ KOLEGA TIM RISET
- ❖ Mitra terkait



THANK YOU