

The future of agriculture and requirements for the food industry

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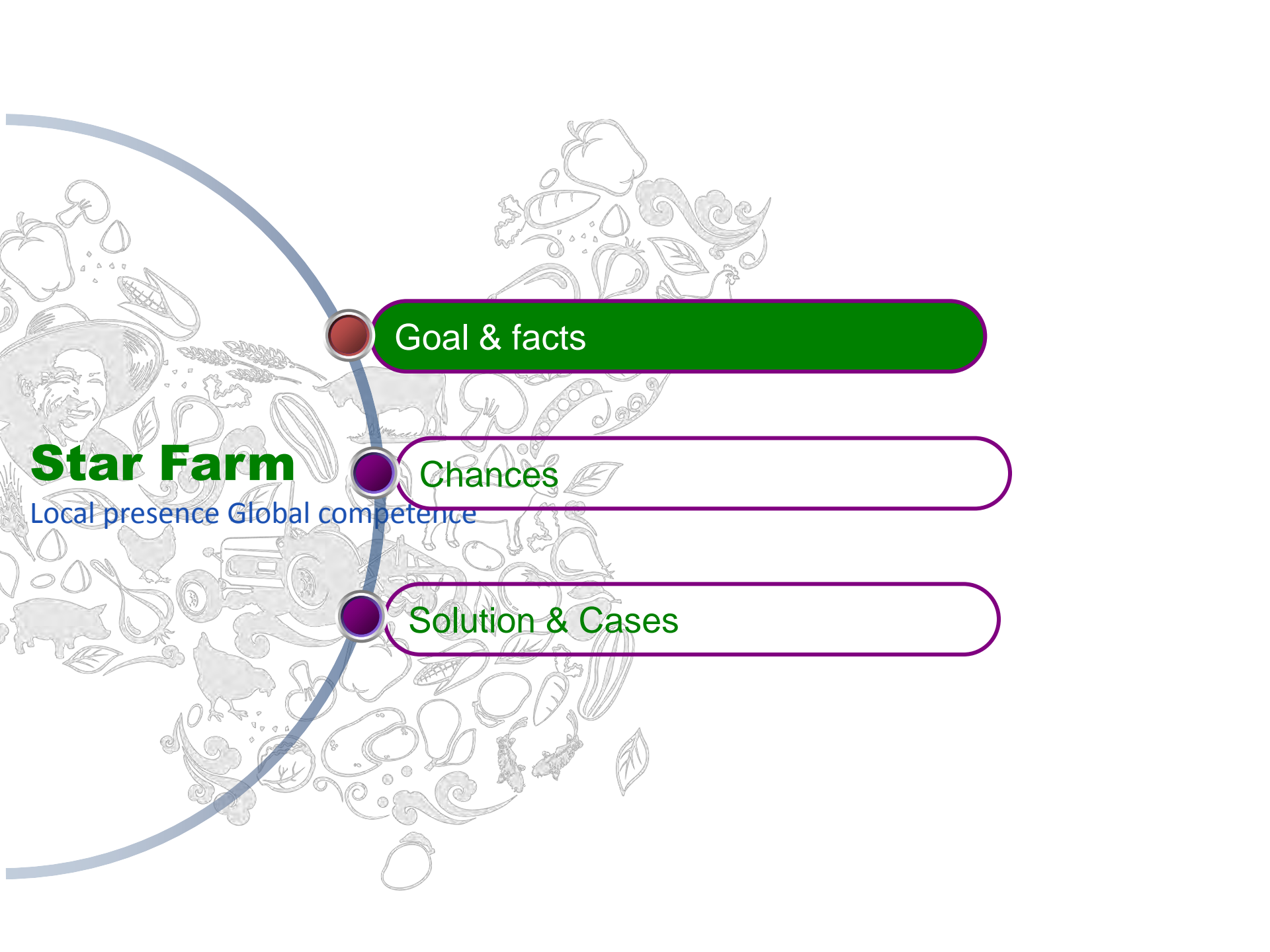
Future agriculture will require an integrated production based on international quality standards along the food chain to create more value for all involved. Clear traceability with transparency and sustainability are key components for the future of a trusted production of feed and food, both for the local as well as the global markets. Effective quality control needs to be implemented at each step of the whole supply chain, from the agricultural production, including cultivar selection, crop protection with pest and residue management to food processing aspects. Training, communication and on-site guidance of growers are key to a sustainable production meeting international standards and regulations as well as the retailer's and by that the market requirements.

Keywords: Food chain; traceability; transparency; sustainability;

Traceable China

More income for farmer, More safety & quality, Better price for Consumer





Star Farm

Local presence Global competence

Goal & facts

Chances

Solution & Cases

Food is the Future Oil !





Product Ready!



Market?



Money?



Growth has its **Price** in the world



Polluted Water

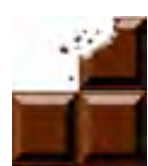




Consumers Demand

- 84% Concerned about food security
- 65% No longer trust the question food manufactory
- 69% Have purchased unsafe foods

Food safety incidents



巧克力
Chocolate
肠道沙门氏菌
salmonella



大米 Rice
药物残留
Medicine
residue



菠菜
Spinach
大肠杆菌
E. Coli



莴笋
lettuce
大肠杆菌
E. Coli



糖果
Candy
添加剂
Additive



大葱
scallion
大肠杆菌
E. Coli



鸡肉 Chicken
禽流感 Flu



花生酱 Peanut jam
肠道沙门氏菌 E. coli



蘑菇 Mushroom
大肠杆菌 E. Coli



冷冻肉 Frozen meat
李斯特菌 Listeria



奶粉 Milk powder
三聚氰胺 Melamine



婴儿食品
Infant food
肉毒杆菌
botulinus



薯条 Chips
苏丹红
Sudan red



鲜牛肉 Beef
大肠杆菌
E. Coli



动物食品 Feed
三聚氰胺
Melamine



地沟油 illegal
cooking oil



饺子 Dumpling
农药残留
pesticide



多宝鱼 turbot
药物残留
Medicine
residue



罐装食品 Canned
food
肉毒杆菌 Botulinus



速冻食品 Frozen
Food
金黄色葡萄球菌
Staphylococcus



牛奶 Milk
黄曲毒素
Aflatoxin



染色馒头 Dyed bun
染色剂
Illegal Colour



香肠 Sausage
瘦肉精 Clenbuterol

2005

2006

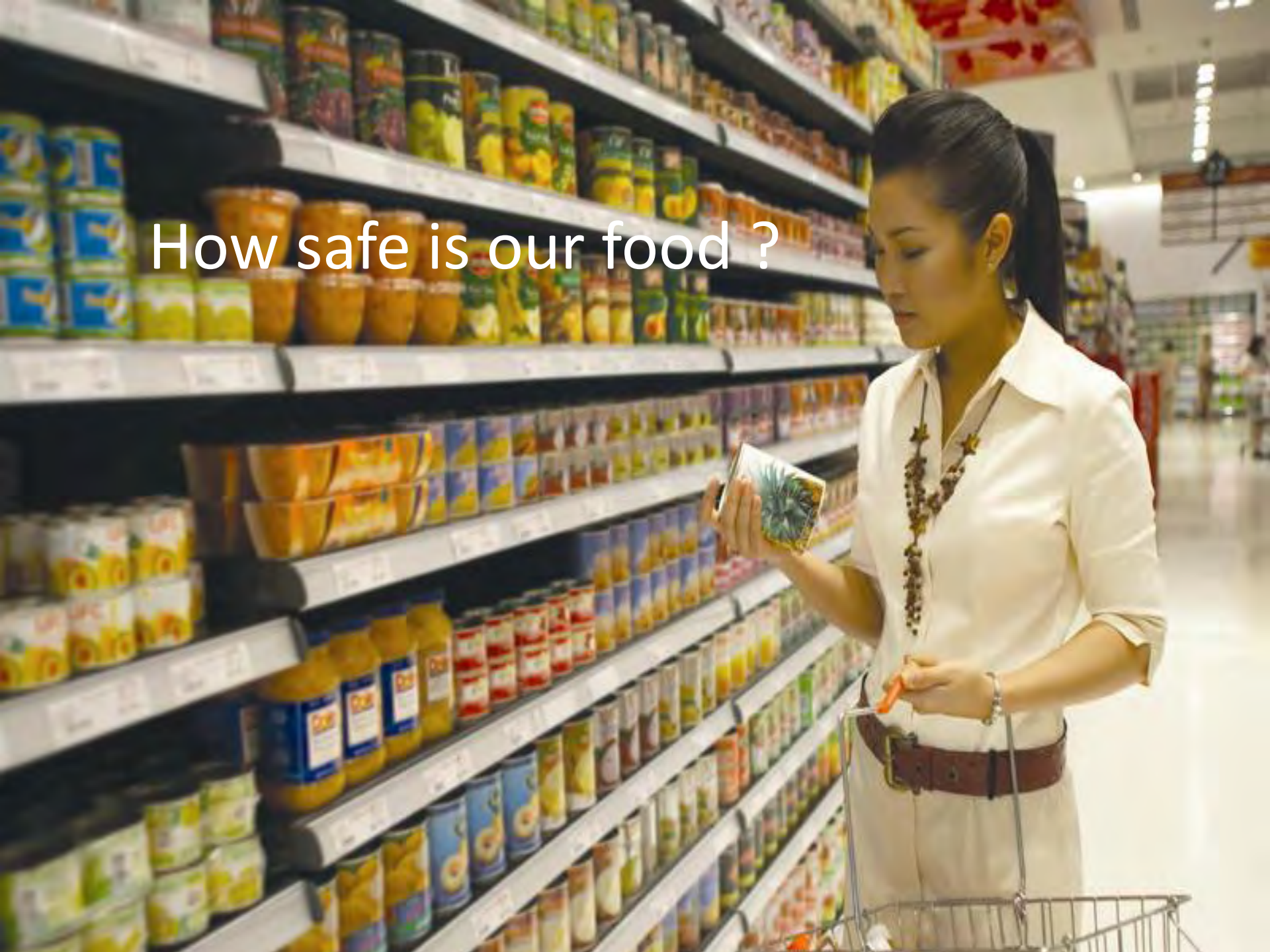
2007

2008

2009/10

2011

How safe is our food ?

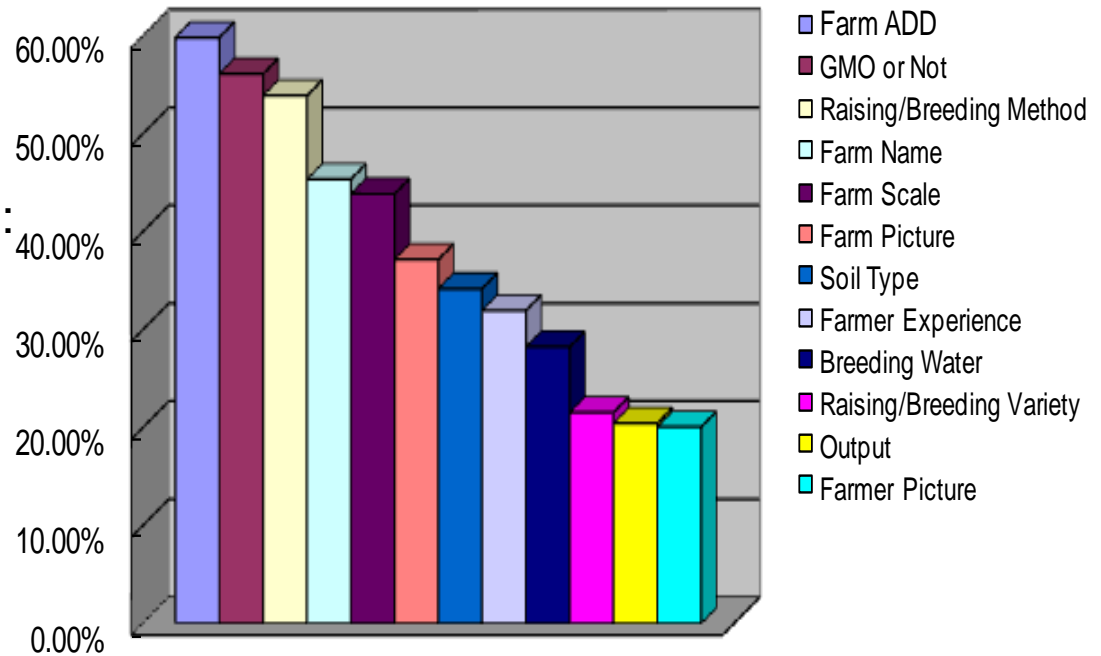


Key Findings

1 Origin Information

The most concerned information:

Farm address
Whether transgenic
Raising/Breeding methods



The information of relative interest:

Farm name, Farm scale, Farm photographs, Soil types, Farmer's experience, Breeding/Planting water, Breeding /Planting varieties, Yields, Farmer's photos.

What Government Want

Food safety and quality

- Origination management
- Scene management
- Training
- Testing



Information monitoring

- TS
- DB
- Recall



Market

- Domestic
- Abroad



Prevention

Process Control

Economic

Quality Management



Safety
Basic



Quality

Trust with
international STD



Implementation of
Tech and System

Bring Value
cost reduction



Transparent S.C.

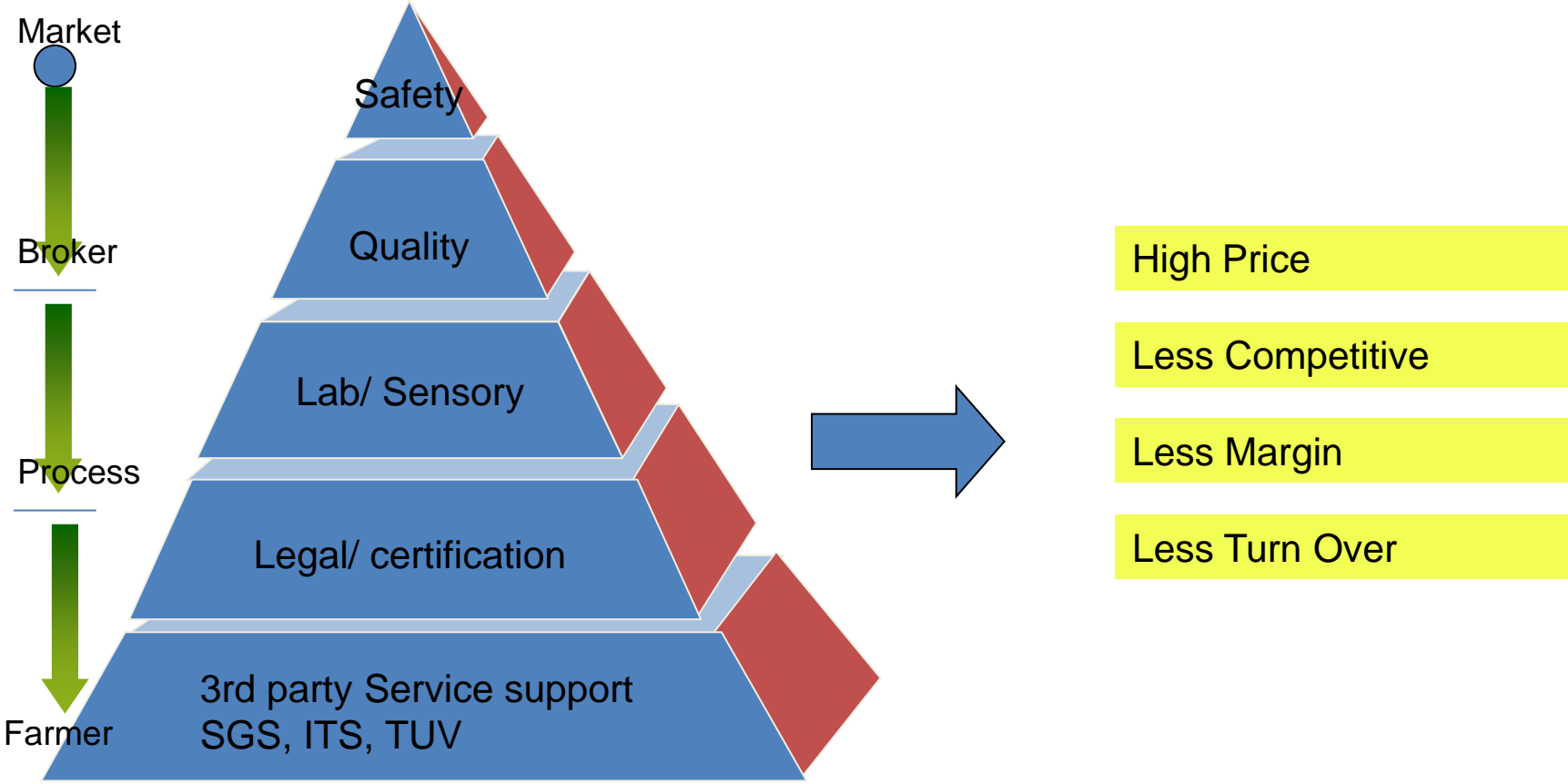
USP



Sustainable
Attention
Attractive

Today Metro Have Quality Control

--- Assessment only reflects the "picture" of situation





Very low per capita GDP

Ranking	Country	GDP (Million USD)	Per Capita(USD)
1	USA	15,064	45,000
2	China	6,988	5,400
3	Japan	5,855	38,000
4	Germany	3,638	42,000
5	France	2,808	44,000
6	Brazil	2,517	42,000
7	U.K.	2,480	42,000
8	Italy	2,245	8,000
9	Russia	1,884	39,000
10	India	1,843	42,000
19	Switzerland	665	67,000
47	Pakistan	204	9,000

World GDP in 2011 70,000 billion USD GDP,
8,500 USD per Capita



McKinsey Forecast Study 2020

①. China

②. USA

③. Japan

④. Brazil

⑤. India

⑥. Indonesia

⑦. Russia

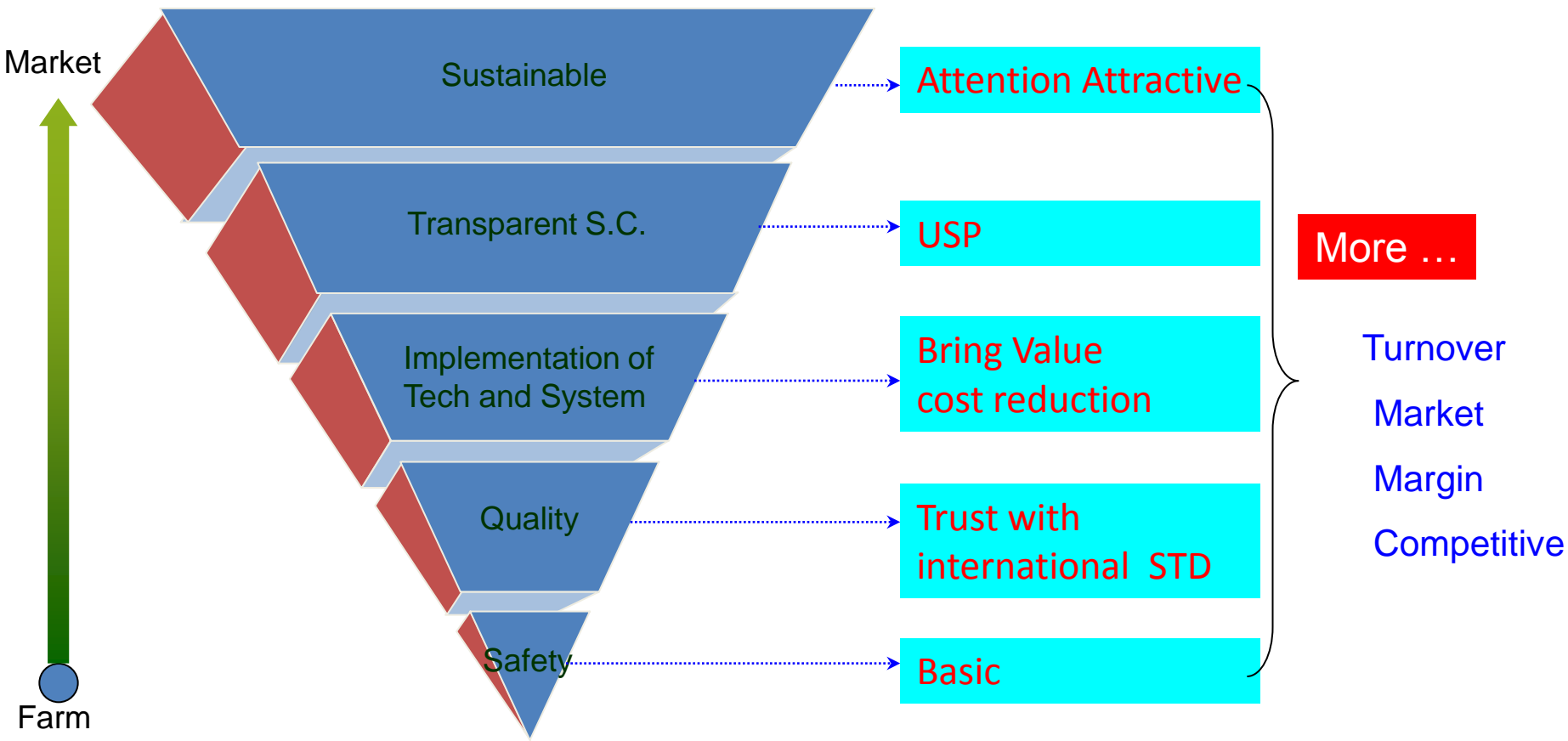
⑧. Vietnam

⑨. Germany

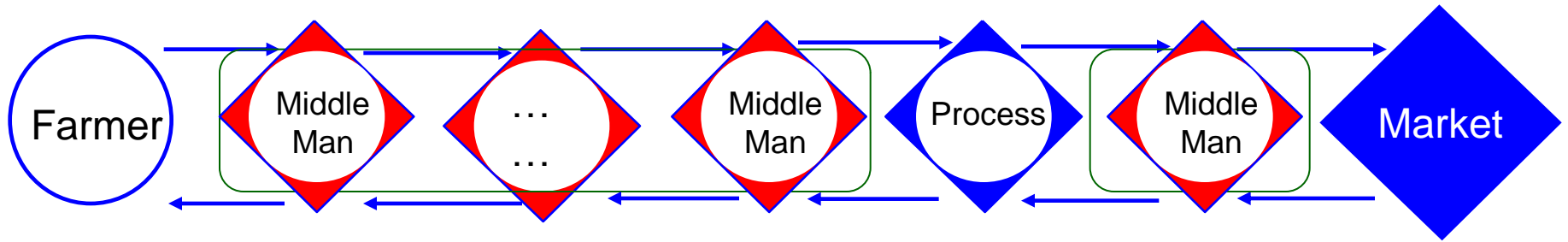
⑩. Pakistan



Quality Control to Quality Management is "Film"



● Transparency & Safety & Quality



Better
Income



Cost Reduction
More Market



More
Customers



Best Price

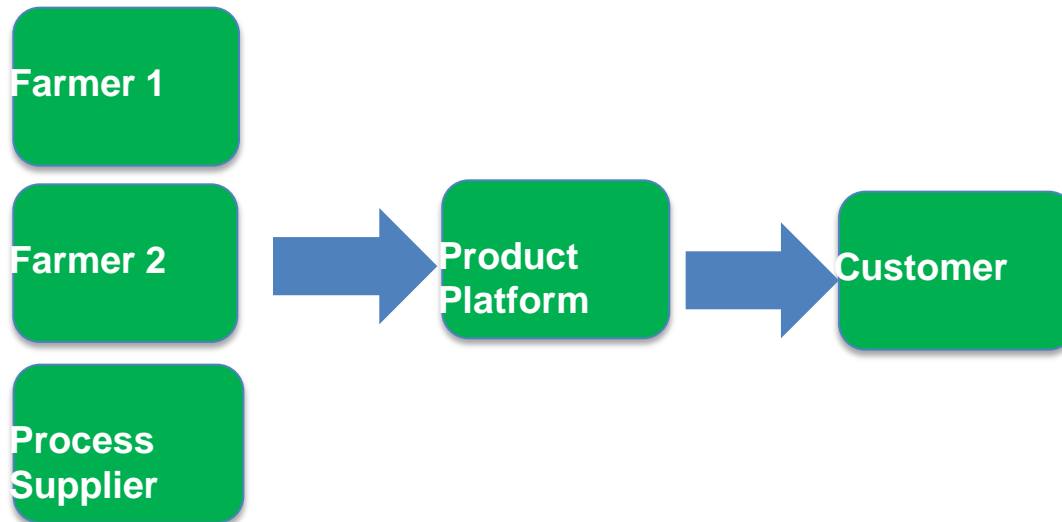


More Tax &
Reputation

Current Supply Chain Model

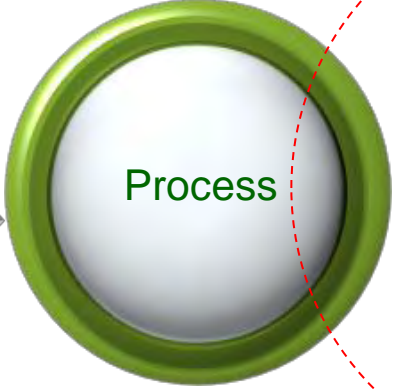
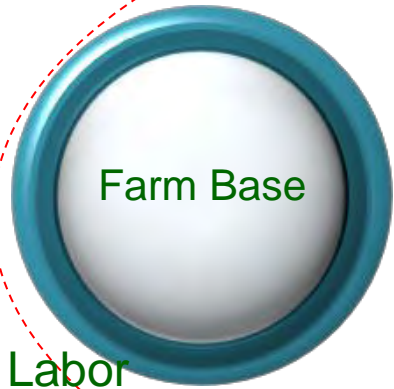


Star Farm Supply Chain Model



Customer Expects From Product

- .Soil
- .Water
- .Medicine
- .Foodstuff
- .GMO
- .Seed
- .No Childen Labor
- .Sustainability



Client Expects From

- .Price
- .Service
- .Communication
- .Meeting point
- .Make friends
- .Extra service
- .New products
- .USP
- .Traceability
- .Safety
- .Quality.Taste

From Farm to Fork SF QM System



Government Relation

Seed
Rijk Zwaan

Tech Partner
Bayer Crops

K+S
Kali GmbH

Organization
WB | UNIDO | WWF | GTZ

3rd Party
SGS
Moody | ITS | BV

Packaging
Sealed Air

IFS

Sustainability
Less CO2
No Childen Labor
Water

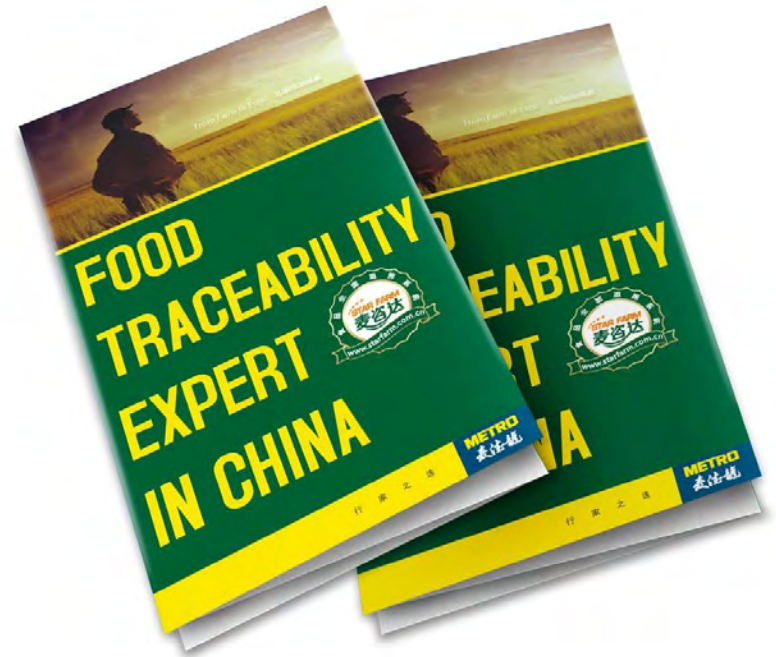
The **most** concerned information



- Farm Name
- Farm address
- GMO or not
- Raising/Breeding methods
- Farm Scale
- Product feature
- Factory Name
- Factory address
- Key step of processing
- Logistics Method
- Logistics Temperature
- Product Test Report
- Feedstuff Test Report

Star Farm Established in **2007**

Leader in **Food Safety** and **Traceability** Service



Mission

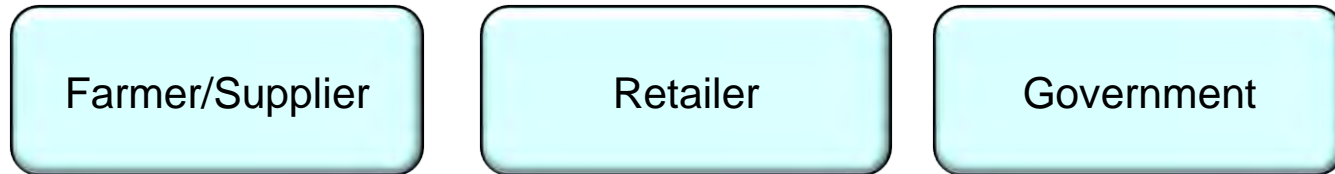
Adding value
to the Food
Supply Chain



The Role of Star Farm



SF Service Model



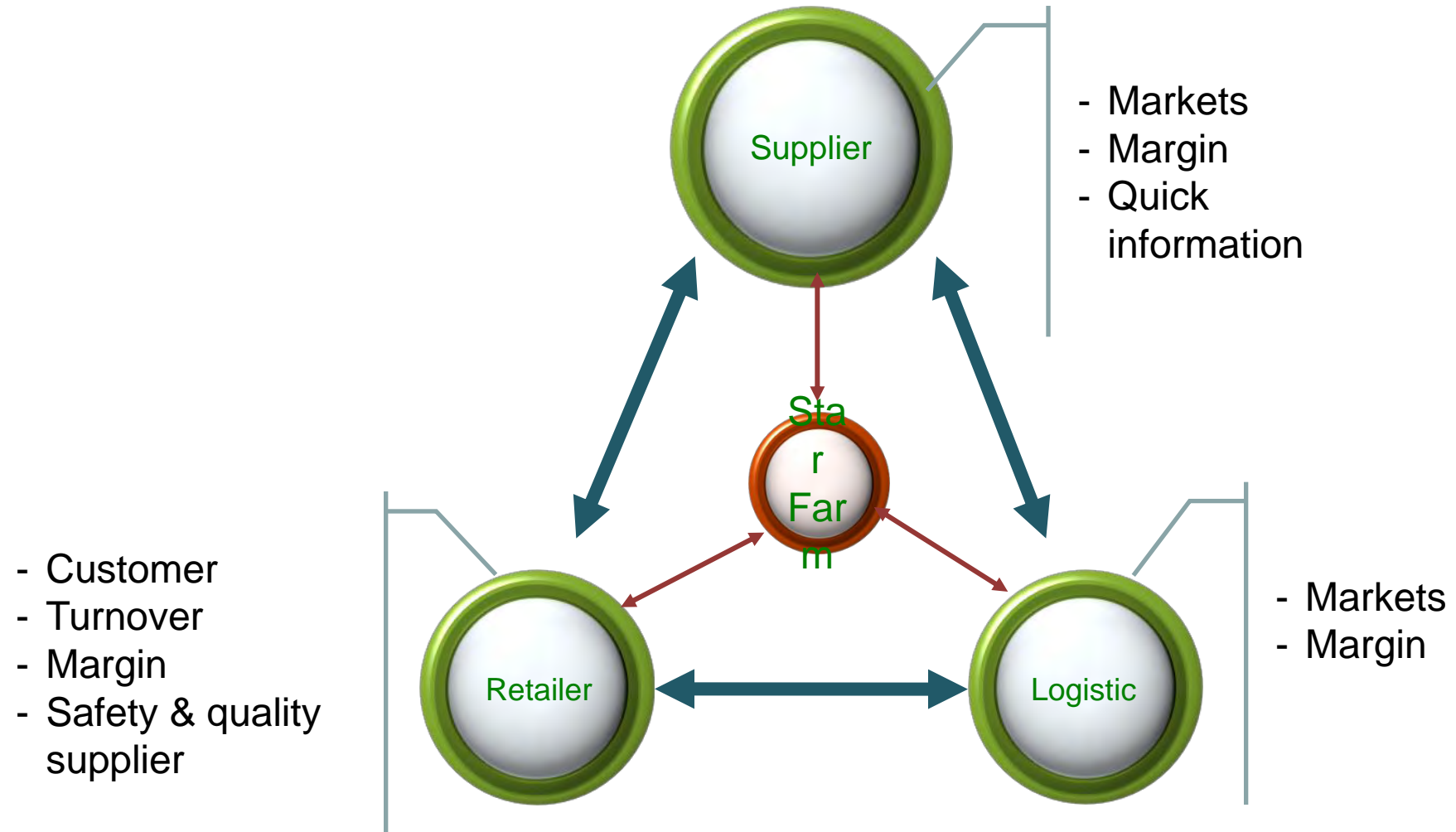
Target Customer



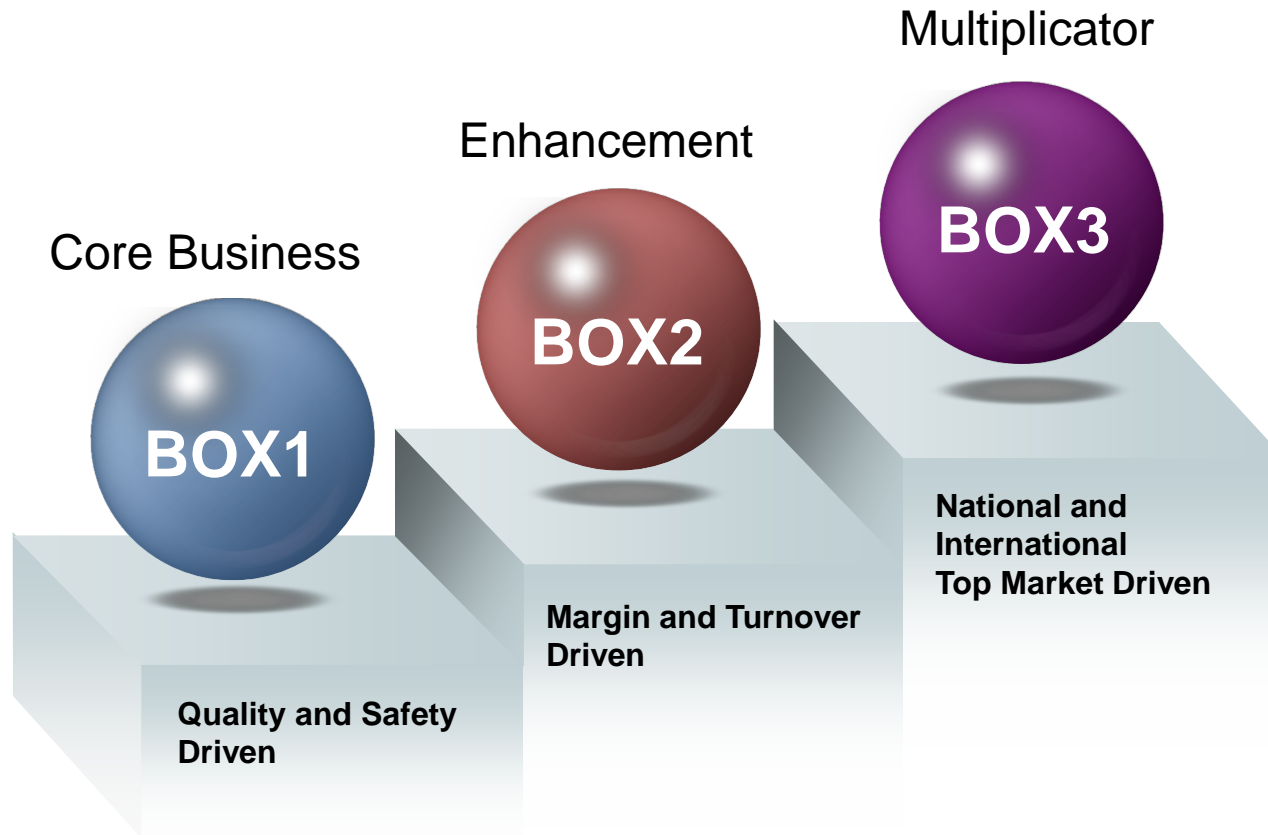
Service

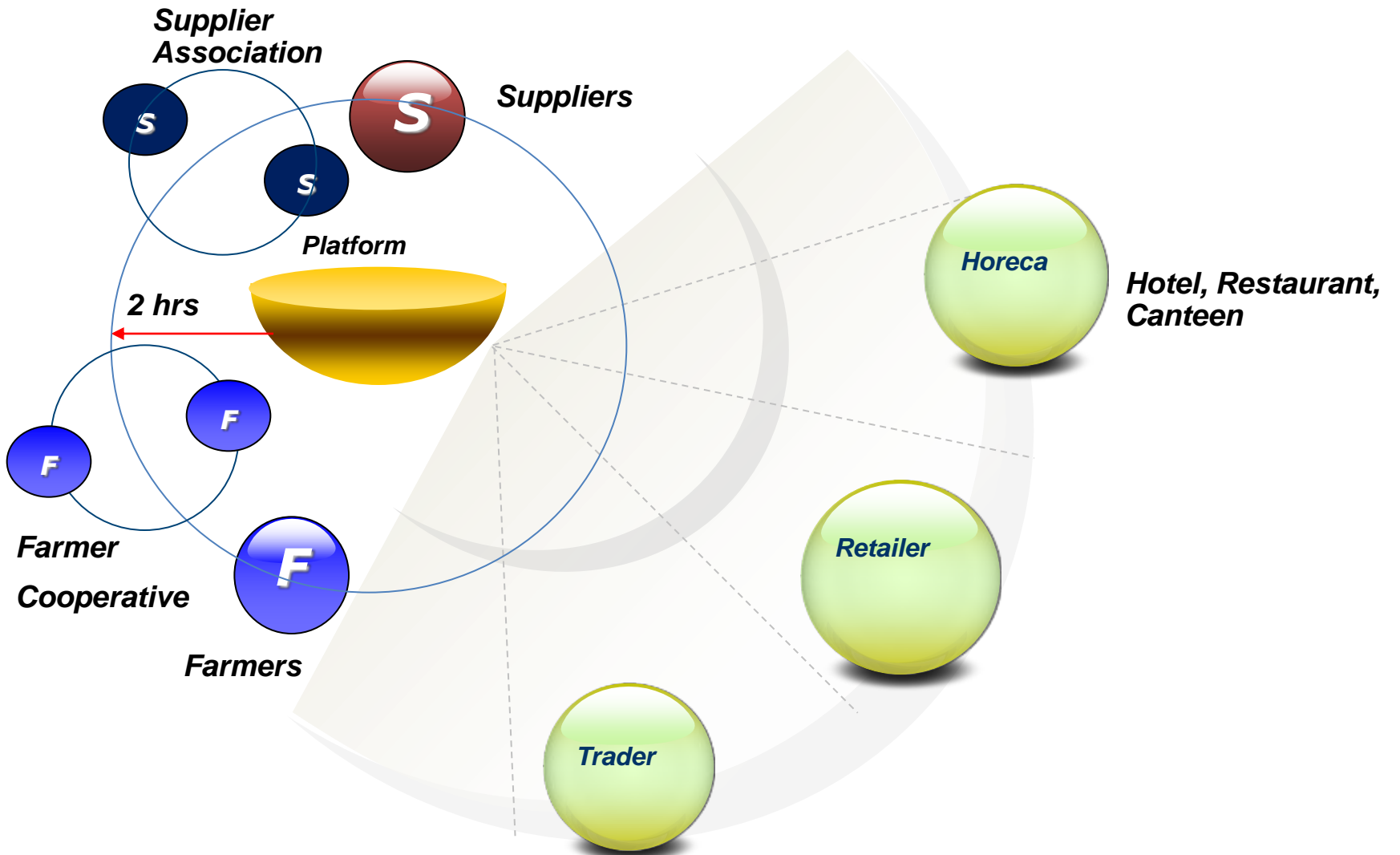
- | | | |
|---|---|--|
| <p>Box 1
Core Business</p> <ol style="list-style-type: none"> 1. Assessment; 2. Consulting; 3. TS(Transparent & Sustainable). | <p>Box 2
Enhancement</p> <ol style="list-style-type: none"> 1. Supplier Identification; 2. Middle man elimination; 3. Productivity <ol style="list-style-type: none"> 3.1 farmer with technique 3.2 processor with flow optimization; | <p>Box 3
Multiplicator</p> <ol style="list-style-type: none"> 1. Farmer Cooperation; 2. Product Platform; 3. Supplier Association; 4. Sales agency & investment agency |
|---|---|--|

Cooperate framework with the 'triangle'



SF Service Model





Name:

Anhui Tianxin Modern Agricultural Ltd., Co.



Business Scope:

Farm base



Process & storage



Logistic & sales



Note: Other suppliers will participate in Product Platform step by step.

● How to build up trust?

Trust
Quality
Safety

Innovation
K now-how
Creativity

Transparency
Sustainability
Commitment

Image

Brand

Confidence

reflects ATTENTION
Attractive

creates VALUE

Brings MARKET

TRAINING

The whole Supply Chain



Transparency And Sustainability Builds Trust For the Consumers

International Standard for Whole Supply Chain



Plant



Harvest



Processing



Processing



Logistic



Supermarket



Table

GLOBALG.A.P.

international
featured
standards®

Food

international
featured
standards®

Broker

international
featured
standards®

Logistics

international
featured
standards®

Cash&Carry/Wholesale

Global GAP For Farm Base

Note: The data come from the Global G.A.P. Annual Report 2011

Country	Number	Country	Number	Country	Number	Country	Number
Afghanistan	1	Faroe Islands	5	Malaysia	7	Slovakia	18
Argentina	973	Finland	1	Mali	159	Slovenia	27
Armenia	1	France	3737	Malta	71	South Africa	1882
Australia	143	Gambia	1	Martinique	33	South Georgia	1
Austria	2436	Germany	8997	Mauritius	1	Spain	25923
Azerbaijan	1	Ghana	285	Mexico	120	Sri Lanka	5
Bahrain	1	Gibraltar	1	Moldova	2	Suriname	2
Belgium	3330	Greece	12414	Morocco	520	Swaziland	8
Belize	1	Guadeloupe	36	Mozambique	4	Sweden	16
Bolivia	2	Guatemala	1164	Namibia	24	Switzerland	65
Bosnia/Herzegovina	501	Guinea	41	Netherlands	5288	Syria	1
Brazil	433	Honduras	27	New Zealand	1639	Taiwan	3
Bulgaria	25	Hungary	1269	Nicaragua	2	Tajikistan	5
Cameroon	25	India	3092	Norway	63	Tanzania	54
Canada	40	Indonesia	4	Oman	1	Thailand	263
Chile	2595	Iran	1	Pakistan	52	Tunisia	91
China	280	Israel	41	Palestinian Territories	439	Turkey	3009
Colombia	557	Italy	1337	Panama	43	Uganda	8
Costa Rica	276	Jamaica	1	Paraguay	34	Ukraine	3
Croatia	132	Japan	20	Peru	2566	United Arab Emirates	1
Cuba	1	Jordan	21	Philippines	5	United Kingdom	55
Cyprus	1147	Korea(South)	169	Poland	1827	United States	470
Czech Republic	91	Latvia	5	Portugal	541	Uruguay	90
Cote d'Ivoire	290	Lebanon	14	Puerto Rico	4	Venezuela	1
Denmark	164	Lithuania	1	Romania	40	Vietnam	258
Dominican Republic	937	Macedonia	16	Saint Lucia	974	Zambia	3
Ecuador	808	Madagascar	145	Saudi Arabia	3	Zimbabwe	27
Egypt	359			Senegal	127	TOTAL	112576
Ethiopia	19			Serbia/Montenegro	322		

0.24%

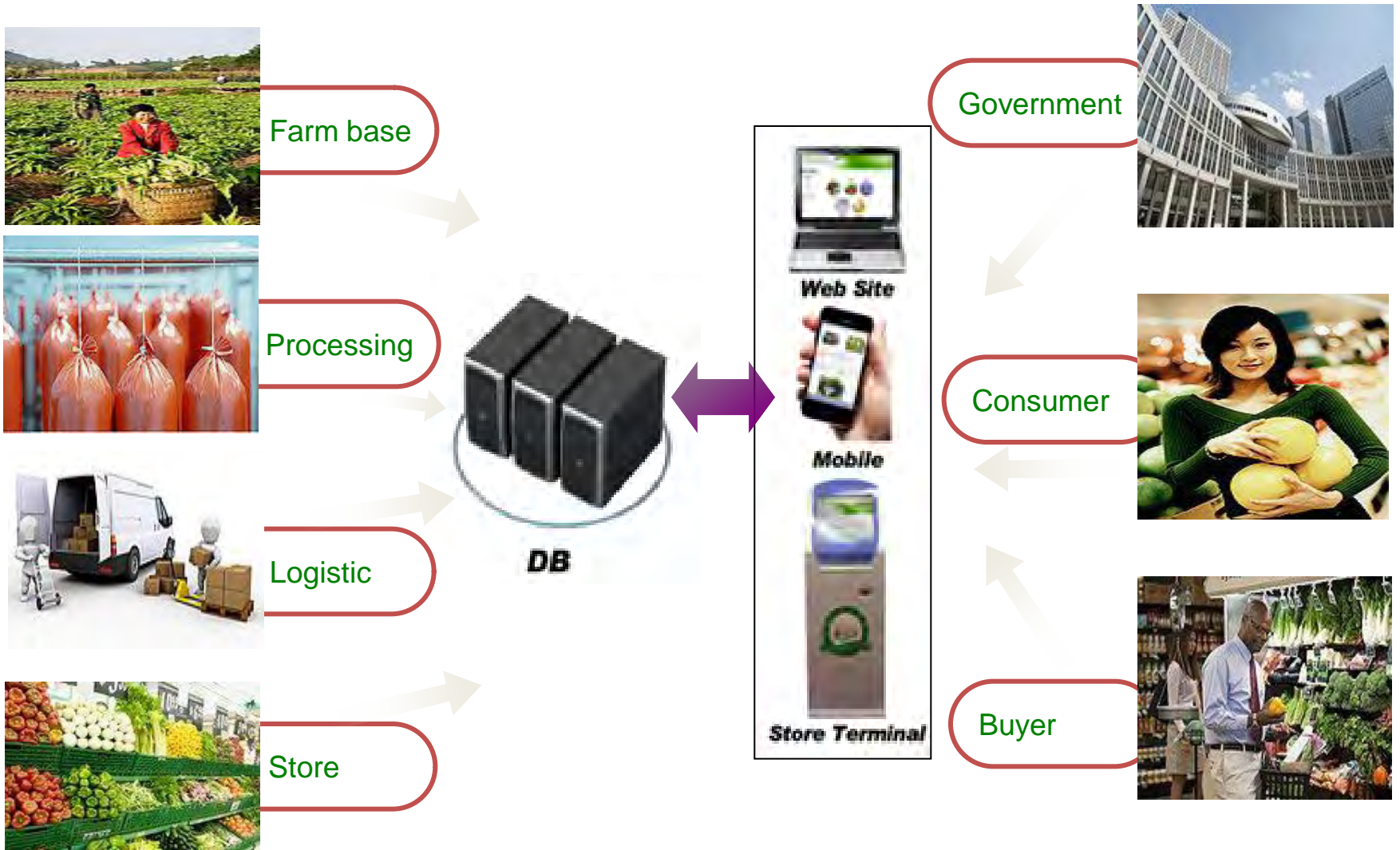
international
featured
standards™



IFS For Process
Total: 12013

NO	Country	Supplier number	NO	Country	Supplier number
1	Germany	3431	31	Indonesia	9
2	Italy	1742	32	India	18
3	France	1462	33	South Africa	15
4	Spain	1281	34	Thailand	80
5	Switzerland	54	35	turkey	106
6	Austria	1.63%	36	Ireland	8
7	Netherlands	39	37	Roumania	71
8	United Kingdom	93	38	Madagascar	4
9	Denmark	420	39	Sri Lanka	4
10	Belgium	53	40	Cyprus	13
11	China	196	41	Israel	1
12	Vietnam	13	42	Iran	3
13	Russia	44	43	Peru	11
14	United States	6	44	Colombia	6
15	Canada	198	45	Ecuador	13
16	Greece	12	46	Uruguay	1
17	Sweden	8	47	Ghana	3
18	Philippines	5	48	Nicaragua	1
19	Iceland	42	49	Niger	2
20	Australia	3	50	Papua New Guinea	3
21	Argentina	12	51	Morocco	43
22	Brazil	2	52	Tunisia	7
23	Mexico	3	53	Kenya	1
24	Norway	39	54	Bulgaria	79
25	Portugal	4	55	Croatia	15
26	Finland	417	56	Hungary	261
27	Poland	28	57	Albania	4
28	Chile	1	58	Czech	313
29	Netherlands	3	59	Luxembourg	6
30	Ukraine		60	Slovakia	83

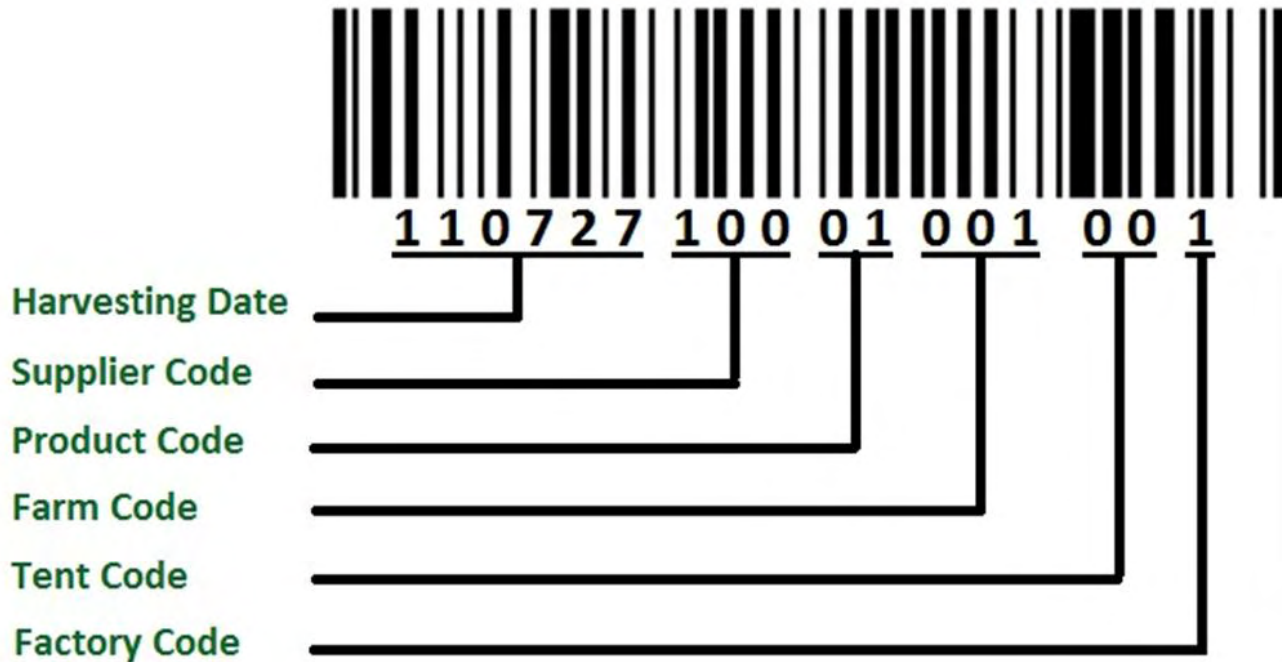
Supply Chain Information Management by DB





Barcode Composition

Star Farm Traceability System

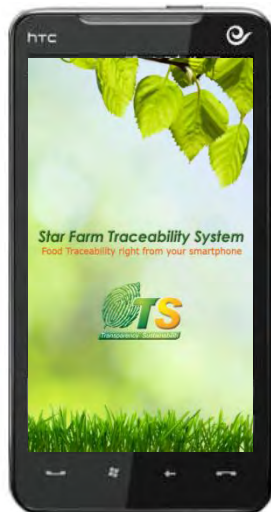
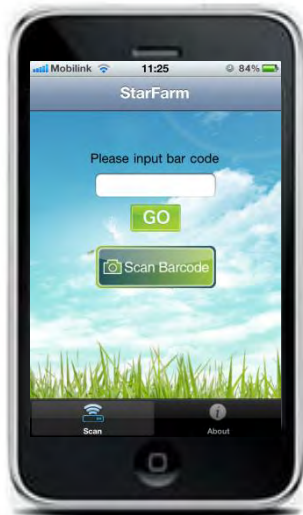


SFTS Mobile Version includes:

5 main systems: IOS, Android, WM, Symbian, WP7

More than 60 Smart Mobile Phones:

IPhone, HTC, Nokia, Moto, Samsung, Sony Ericsson, ASUS, Acer, LG....



Star Farm Traceability System



**Multiple and convenient access
to Traceability Information**

Mobile, Store terminal, Computer



Traceability Information

TRACEABILITY SYSTEM

» Traceability System

Food traceability means the ability to trace and follow a food, feed, food-producing animal or substance intended to be, or expected to be incorporated into a food or feed, through all stages of production, processing and distribution.



Traceability System Your Position: Home > Traceability system > Traceability System

General Info:

Farmer: Yu Huiqiang
Field Name: JinagXi WangPing
Field Add: LongGang Village, HeZhi Town, AnYuan County, GanZhou City, JiangXi Province
Farm Coordinates: 24°54'18.28"N 115°13'6.57"E

Farm Name: JinagXi WangPing Agricultural science and technology development Co., LTD
Farm Add: LongGang Village, HeZhi Town, AnYuan County, GanZhou City, JiangXi Province
Farm Code: 001

江西省赣州市安远县鹤仔镇龙岗村

北纬24°54'18.28" 东经115°13'06.57" 高度 295 米 视点高度 1.50 公里

00:13 / 00:17



Detailed Product Information

Processing Chart:





Detailed Product Information

Origin Info:

Farmer: Yu Huiqiang

Farm Code: 001

Field Name: JinagXi WangPing

Soil Type: red soil

Field Add: LongGang Village, HeZhi Town

Arable Area: 100000mu

Experience: 6Year

Cultivation method: Cultivated





Logistics, Processing and Certifications

Processing:

Factory Name: GanZhou WangPing Fruit Industry Co.,Ltd
Factory ADD: HeZhi Town,AnYuanCounty,GanZhouCity, JiangXi Province
Output: 10000T

Logistics:


Logistics ways: Truck
Logistics Temperature: Normal temperature
Logistics Route: Ganzhou – Shanghai DC— Metro Store






Logistics, Processing and Certifications


Testreport:




Packaging test report



Product test report



Soil test report



Irrigation water test report

Customer Feedback

If you have any advice or question, please don't hesitate to contact us. E-mail: Info@starfarm.com.cn
All traceability information come from suppliers.

[Search Another Code](#) [Back to top](#)

Star Farm Technique System

Value Added Project



Crop Protective Provider:

- 1. Farm base assessment;
- 2. Plant protective technology;
- 3. Product test;
- 4. Cost and quantity;



System Provider:

- 1. Good Agriculture Practice;
- 2. Risk assessment;
- 3. Food safety control;
- 4. Traceable;



Package Provider:

- 1. Material;
- 2. Shelf life;
- 3. USP

Field

Supply chain

Market

Project Target:

- 1. Cost Down, More Value
- 2. Traceable, More Safety
- 3. Knowledge, technology, system work



Seed Provider:

- 1. NON GMO statement;
- 2. Seed selection;
- 3. Field Management and plant technology;



Fertilizer Provider:

- . Soil assessment;
- . Fertilizer usage;
- . Yield estimation;



Driver of Project:

- 1. Customer needs;
- 2. Customer panel;
- 3. PR/Media;

The Combination of **Technology and Management** in the Entire Food Supply Chain to Achieve Added Value

● Project Product



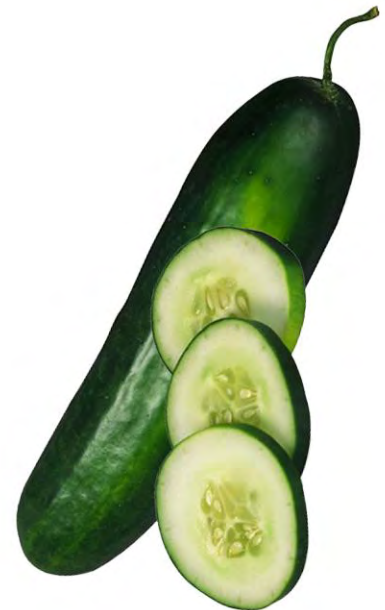
Tomato



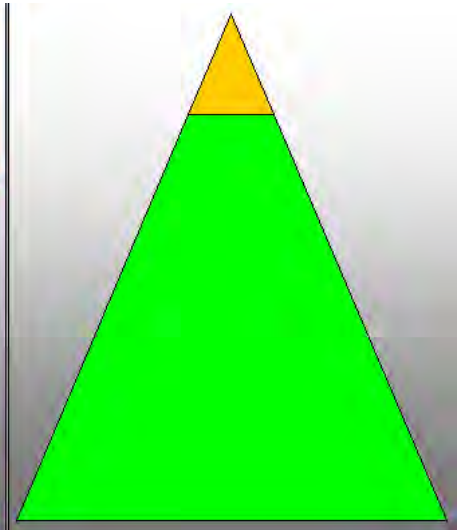
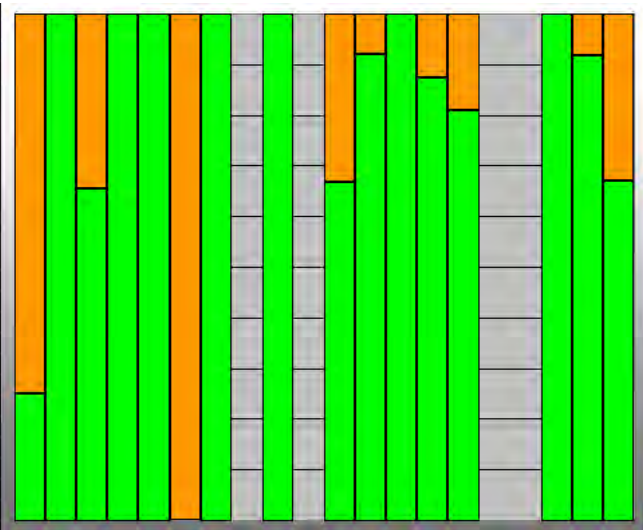
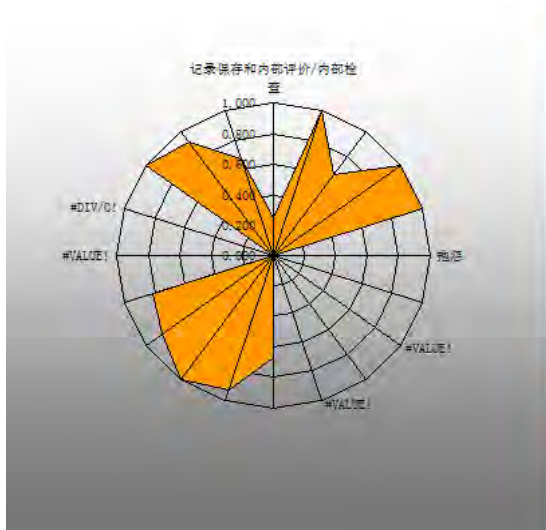
Eggplant



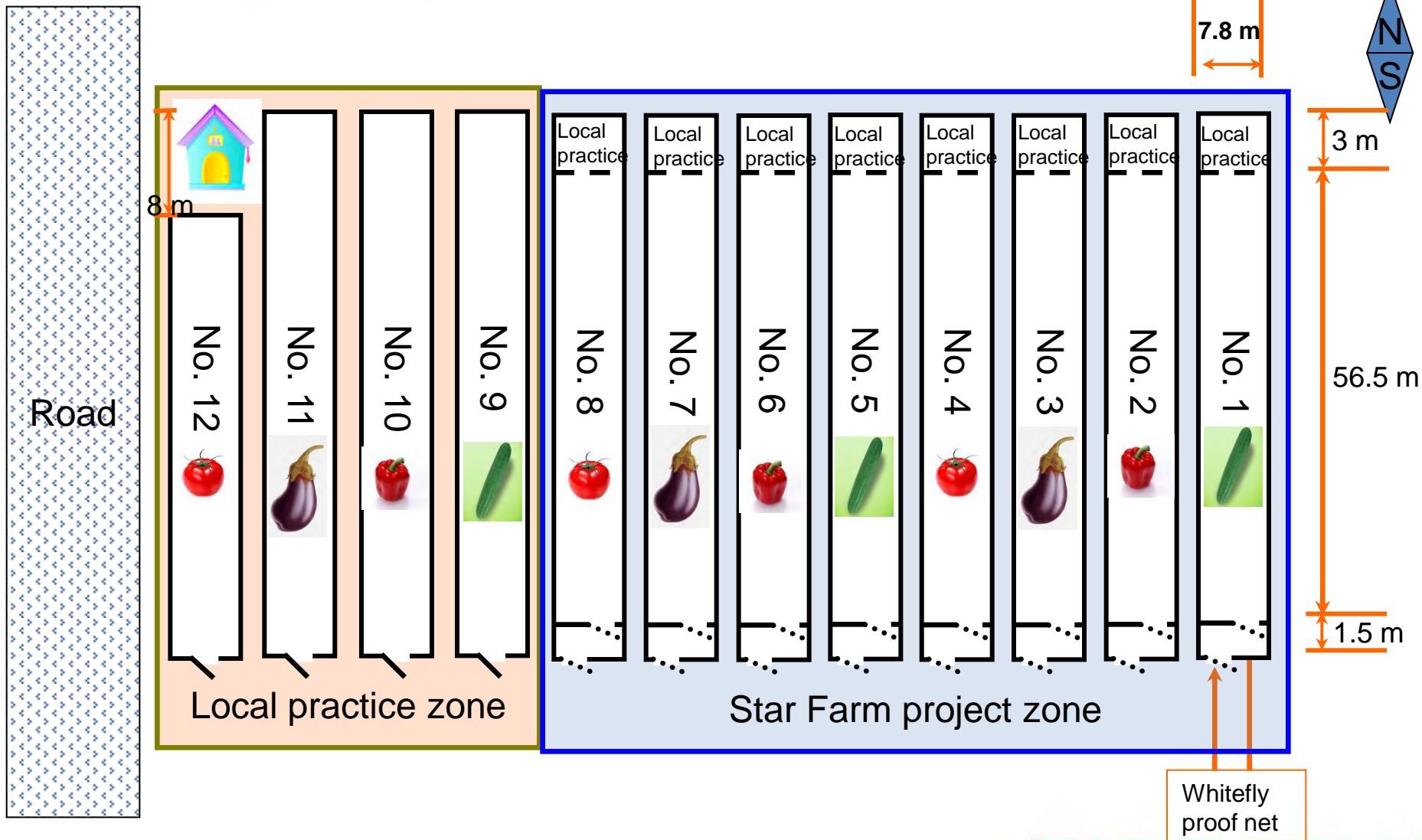
Pepper



Cucumber



Layout of Star Farm project in Jiaxing



Star Farm Technique System



Star Farm Technique System



Local practice

Solution



Local practice

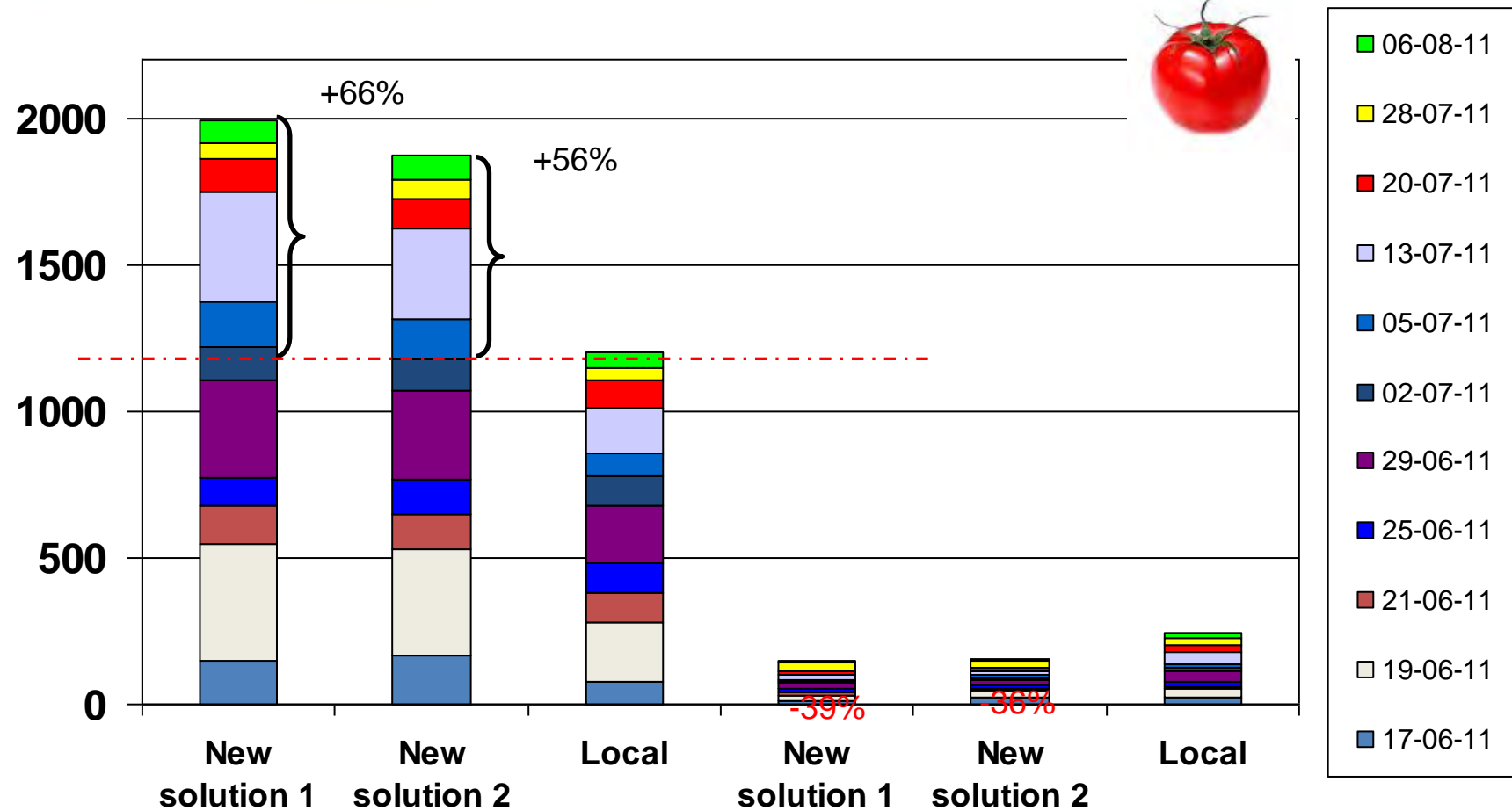
Solution

Field situation on May 16, 2011



Yield assessment for tomato

Kg / greenhouse, 464.1 sqm



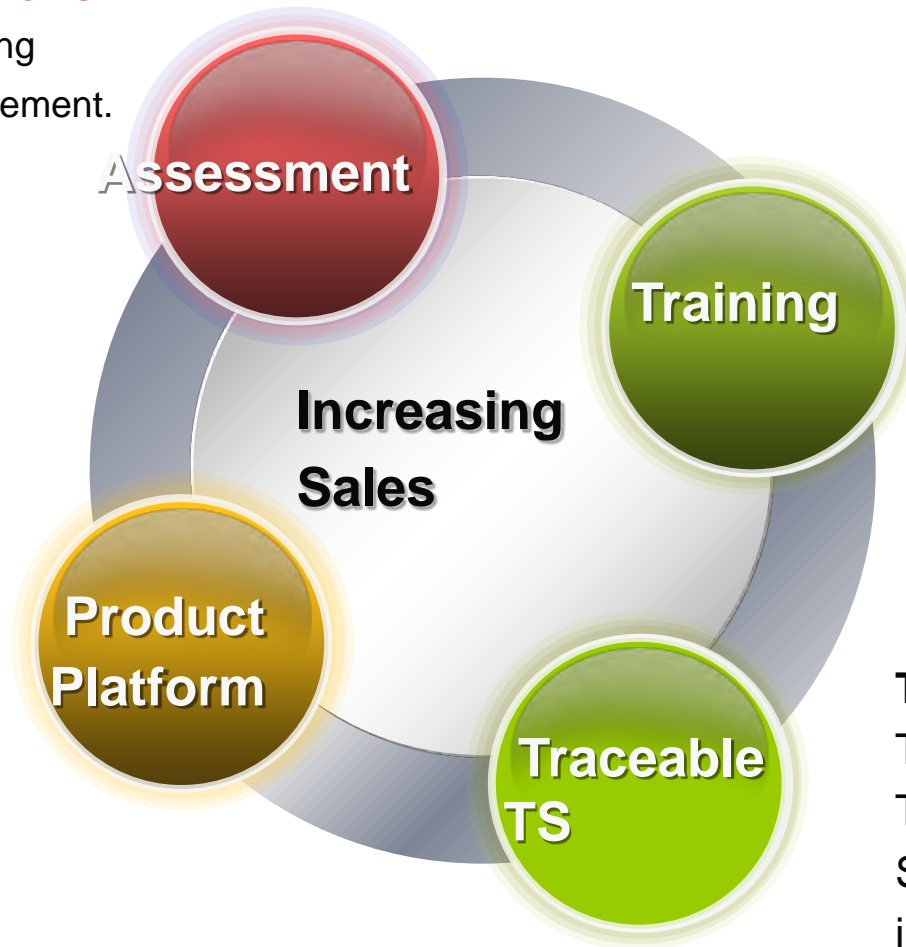
Marketable yield

Unmarketable yield

● Packaging



Assessment: To *reduce the risk of food safety* by supporting supplier continuous improvement.

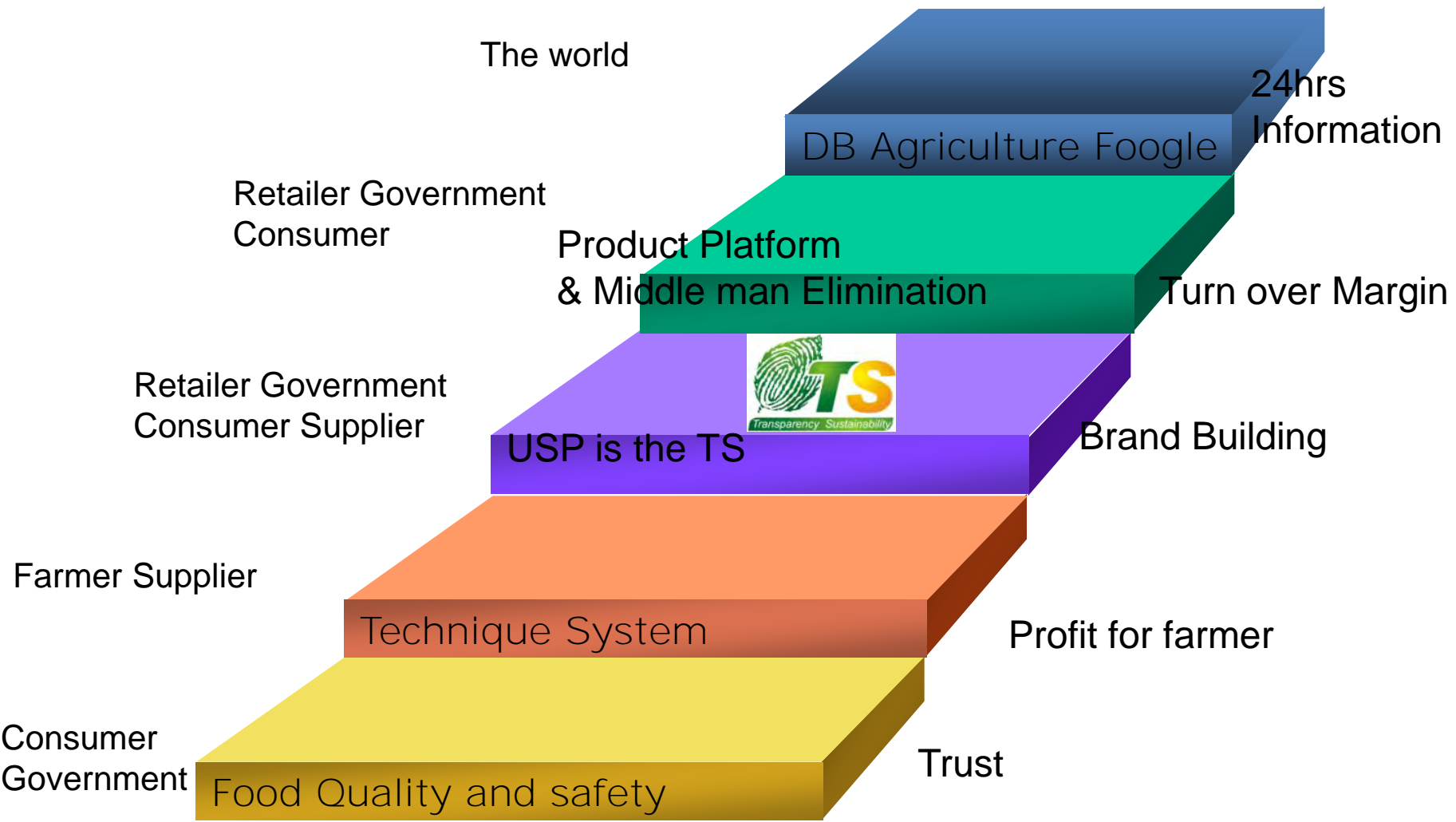


Training: To improve the quality level to achieve *international standard, reduce cost, middle man, and more margin,....*

35 Product platforms: To establish platform around Metro stores in 35 cities with Metro stores.

Better price and Fresh product.

TS: To establish Traceability system / Transparent Sustainable system to improve product quality, *get control by DB.*



Benefits



To farmers

- Technique
- System
- SOP
- CCP
- International standard
- Sustainable

Better Income



To suppliers

- Technique
- System
- SOP
- CCP
- International standard
- Sustainable

**Cost Reduction
More Market**



To market

- Direct farmer access
- Best price
- Best quality
- Transparency in supply chain
- Trust from customers

More Customers



To customers

- Soil, water
- Seed
- Pesticide, fertilizer
- Feed
- Medicine
- GMO
- Sustainability
- Transparency

**Transparency, Safety,
Quality & Best Price**



To government

- Safety & quality
- Investment
- Reputation
- Stable society
- Tax

**More Tax &
Reputation**

- ✓ *Food Quality*
- ✓ *Transparent & sustainable*
- ✓ *Customer satisfaction & confidence*
- ✓ *Enterprise image*
- ✓ *Competitiveness & sales*
- ✓ *Margin and Turn Over*



Build Trust for consumer



Customers of tomorrow want to know the name of the Cow when they are drinking milk.



Make Everything Clear
Create Trust to customer

Star Farm

Transparency & Sustainability