



European Cold Storage and Logistics Association

Wim van Bon ECSLA President 2005 - 2007 and 2009 - 2011

Western Europe has the tallest people in the world



- Fruit growers (apples pears in NL, oranges in Brazil, Costa Rica, pineapples in Costa Rica)
- Dairy farm
- Cold stores and Logistics
- Clean Air Technology (patented system) in medical clinics, surgery rooms in hospitals
- Since recently involved in commodity trading via www.bfwinternational.com
-





What's in common?

•

•



What's in common?

Women and men



Easy indeed



- 
- Public-Private Partnership
 - To Reduce Food Losses
 - In the Supply Chain of Fruits and Vegetables

Individual treatment of people

of product



How to get (very) old?

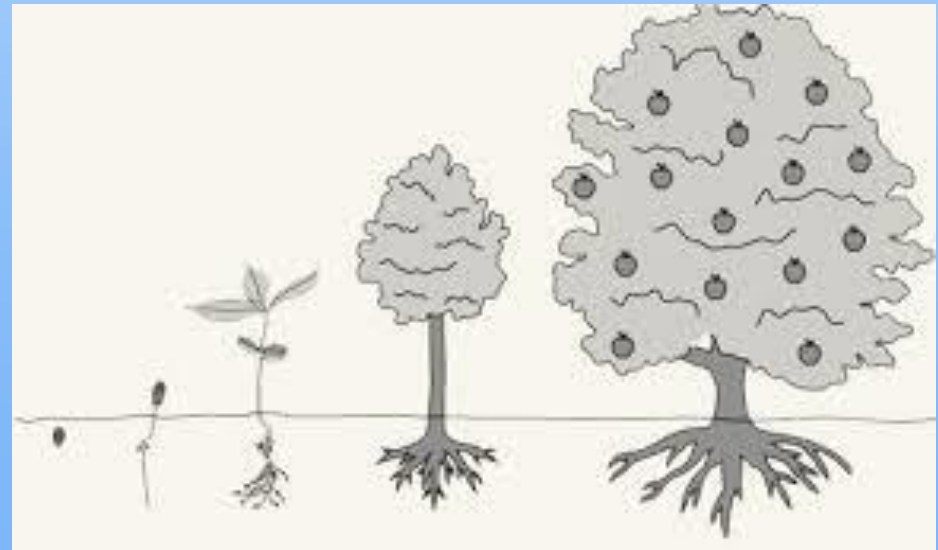


From seed to

plant



tree



Result of hard work - where is the waste?

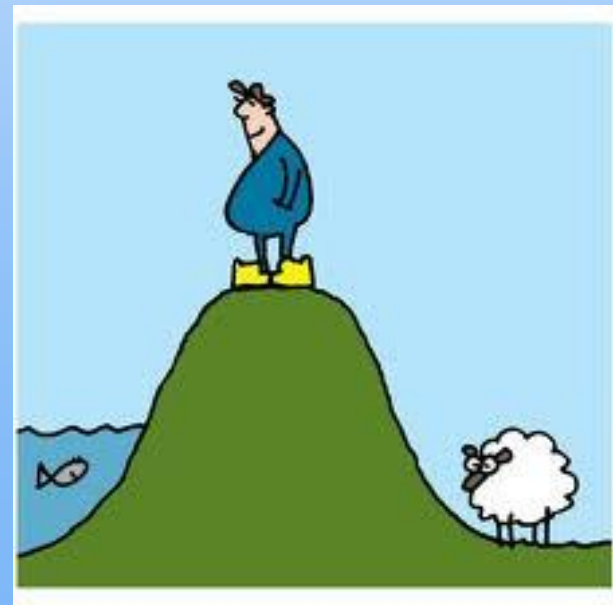


Food waste: 2 types along food chain

agricultural production

consumer level

The dyke



Food waste: my first shock

Along the road long dykes
of melons



Food waste: 2 types along food chain

agricultural production post harvest losses

- ▣ Solutions are there
- ▣ Many reports have been and will be written
- ▣ I am here today to tell about the easy solutions

consumer level

- ▣ (a.o.):
- ▣ People buy too much
- ▣ do not consume in time
- ▣ Legislation of countries
- ▣
- ▣ Not today
- ▣ Here psychologists are needed
- ▣ By far too complicated for me

What is the problem with each individual?



Lower the differences

Common partying



Keep various products separate

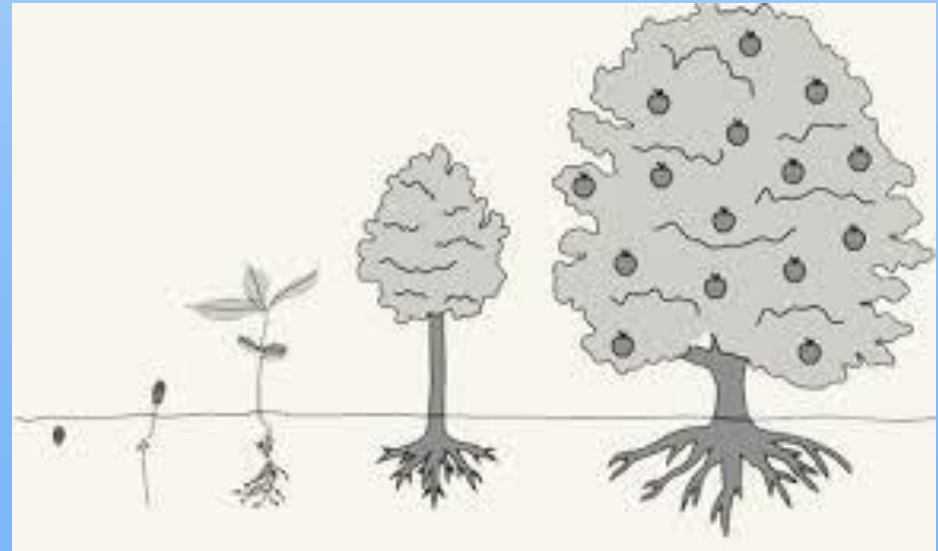


Remember the beginnning

plant



tree



Harvesting



How long do fruits and veg.'s last?

1 day 3 days

1 week

1 month

It depends on the product



Shelf life of each individual product

SHORT

- Product NOT in right atmosphere

LONG

- Product in right atmosphere

THE SOLUTION

- RIGHT INFRASTRUCTURE

RIGHT INFRASTRUCTURE

IMMEDIATE COOLING AFTER HARVESTING

=

- * A LOCAL SMALL COLD STORE
- * A REGIONAL PACKHOUSE
- * A REGIONAL COLD STORE
(regional distribution/ export)

APEC countries

fruit and vegetable waste

- ▣ Various countries
- ▣ Various situations
- ▣ All of you have the same goal:
**prevent post harvest losses
in agricultural areas**

A proposal to APEC Countries

- Make a project:



I'll call it

AAA

- which means....

Adopt An Area

The AAA project

- **preventing post harvest losses by improving and starting the right logistics after harvesting**

(theoretical) examples

- Northern Island of NZ adopts an area in province Shanxi of China to improve yield of potatoes from average 15 mt/ha to at least 30 mt/ha
- A province of India adopts an area in Peru to improve production of mango's
- Mexico adopts an area in Thailand to start avocado production
- etc

The AAA project

step I

APEC countries:

(use the international available funds and)

--- launch the project

and

--- appoint 2 working committees

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step 2

▣ Working committee 1

to identify areas/products
that are to be adopted
including the budgets
needed

Time limit: 4 months

▣ Working committee 2

to identify
Countries, Provinces,
Cities, Development
Funds, other Funds and
Corporates that want to
adopt an area including
the budgets available

Time limit: 4 months

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step 3

APEC countries:

- define timelines
- allocate areas to be adopted
to the adopting
- Cities/Provinces/Areas/Countries/
and Corporates

Time limit : within 2 months after results of working committees have been received
Time limits too short? NO just PLAN IT and DO IT

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step 4

Implement the project

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Background - areas to be adopted

**APEC COUNTRIES/-areas THAT ATTRACT
INTEREST AS AN AGRICULTURAL
PROVIDER**

good soil, cheap land

(possibility of reducing unemployment + also more processing in the future)

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Where?

- * Agricultural areas

- * Regional locations

 - at preference within easy reach from a port facility

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step 3

What's in the project?

a cold store

a grading/packing house

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Within 5 years



**cold stores
and
grading/packing houses**

in at least 36 AAA project areas

The partnering local and regional would in itself develop further opportunities which would emerge in time

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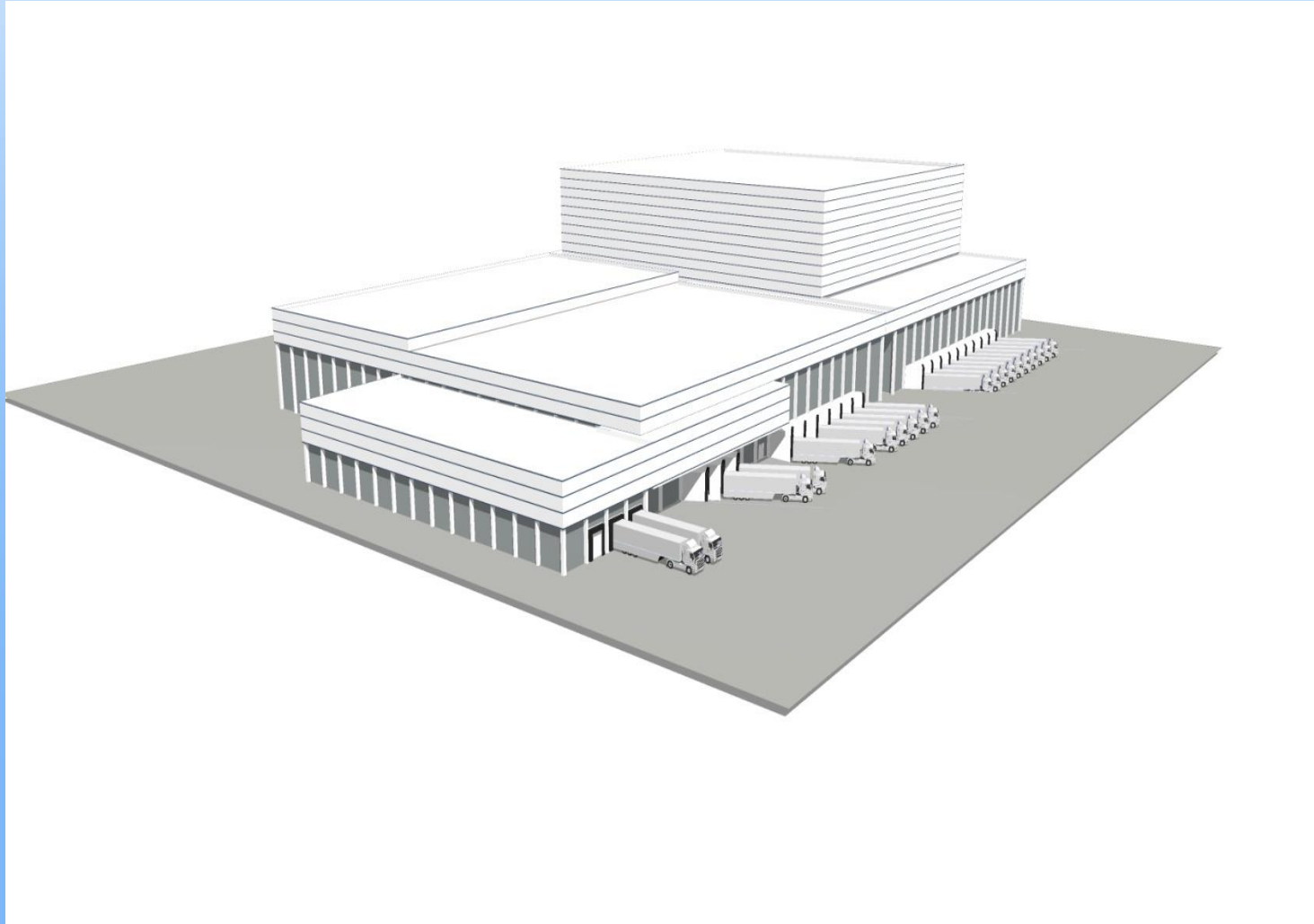
What do
cold stores and
grading/packing facilities
look like ?

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Potato storage in Ethiopia



A High Rise Cold Store in Europe



Note: For info only, a meat cold store, 28 meters high, with processing areas

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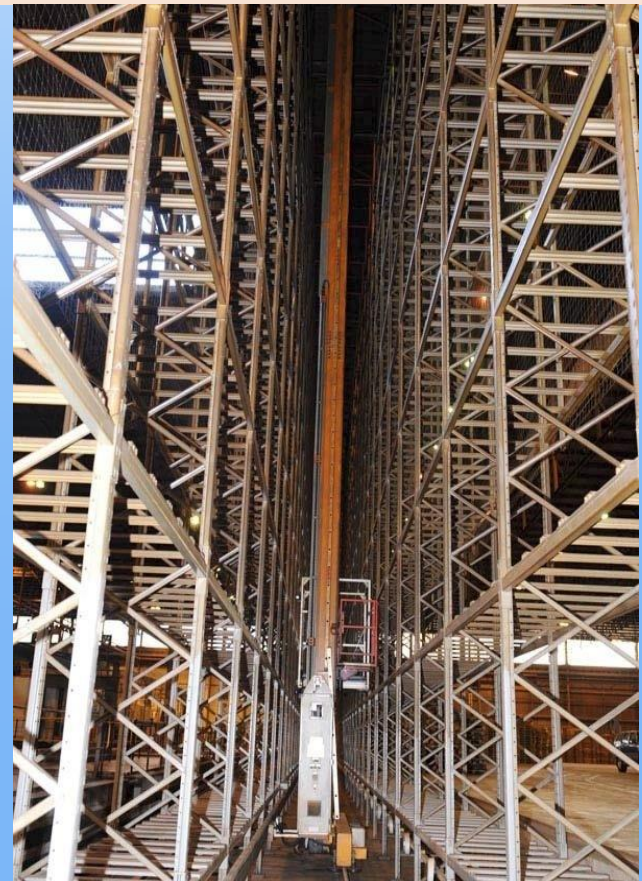
start-up should be small

Comments

Illustration

To be feasible a small storage/cross-docking facility should be as large as necessary as small as possible

New High Rise
Technology solutions
are a few steps too far
away (electricity supply
risks, lower labour
costs) for this project



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alternative thinking



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alternative thinking



Harvesting



Handling and transport after harvesting!?



- To improve shelf life, products should be put in the right atmosphere as soon as possible after harvesting, and also during transport
- Preference is to grade and pack right after harvesting and put it after that in the right atmosphere

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in headlines

farms / rural areas

Cold storage

Grading/Packing

transport to consumers

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a small, local, cold store



Model No.	Pallet Capacity		Metric Dimensions External	Imperial Dimensions	Floor Diagram
	UK	Euro			
AH10	10	12	6.06m x 2.90m	20' x 9'6"	
AH14	14	16	6.06m x 3.81m	20' x 12'6"	
AH20	20	24	9.12m x 3.81m	30' x 12'6"	
AH22	22	27	12.19m x 2.90m	40' x 9'6"	
AH31	31	36	12.19m x 3.81m	40' x 12'6"	
AH34	34	40	13.41m x 3.81m	44' x 12'6"	
AH37	37	44	14.63m x 3.81m	48' x 12'6"	



AAA Transport to regional centre



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Regional storing and grading/packing



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washing-sorting-grading



...tasting



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Transport to port



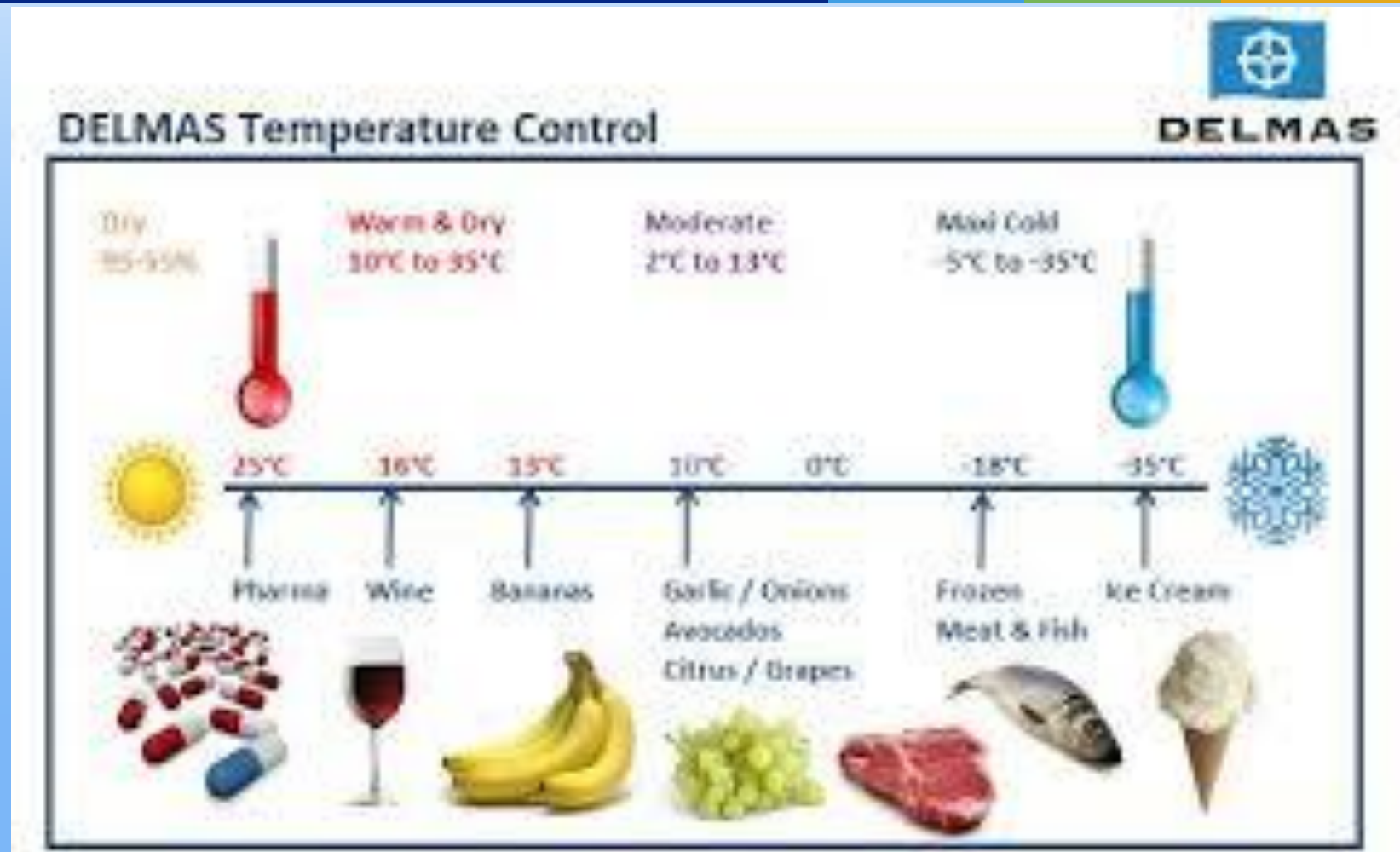
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Transport overseas



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Under control



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in headlines

Some more details

Cold storage

Grading/Packing

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in headlines

- ▣ of course sustainable
- ▣ Solar energy where possible
- ▣ Natural refrigerants
- ▣ Etc

AAA small storage/cross-docking facility

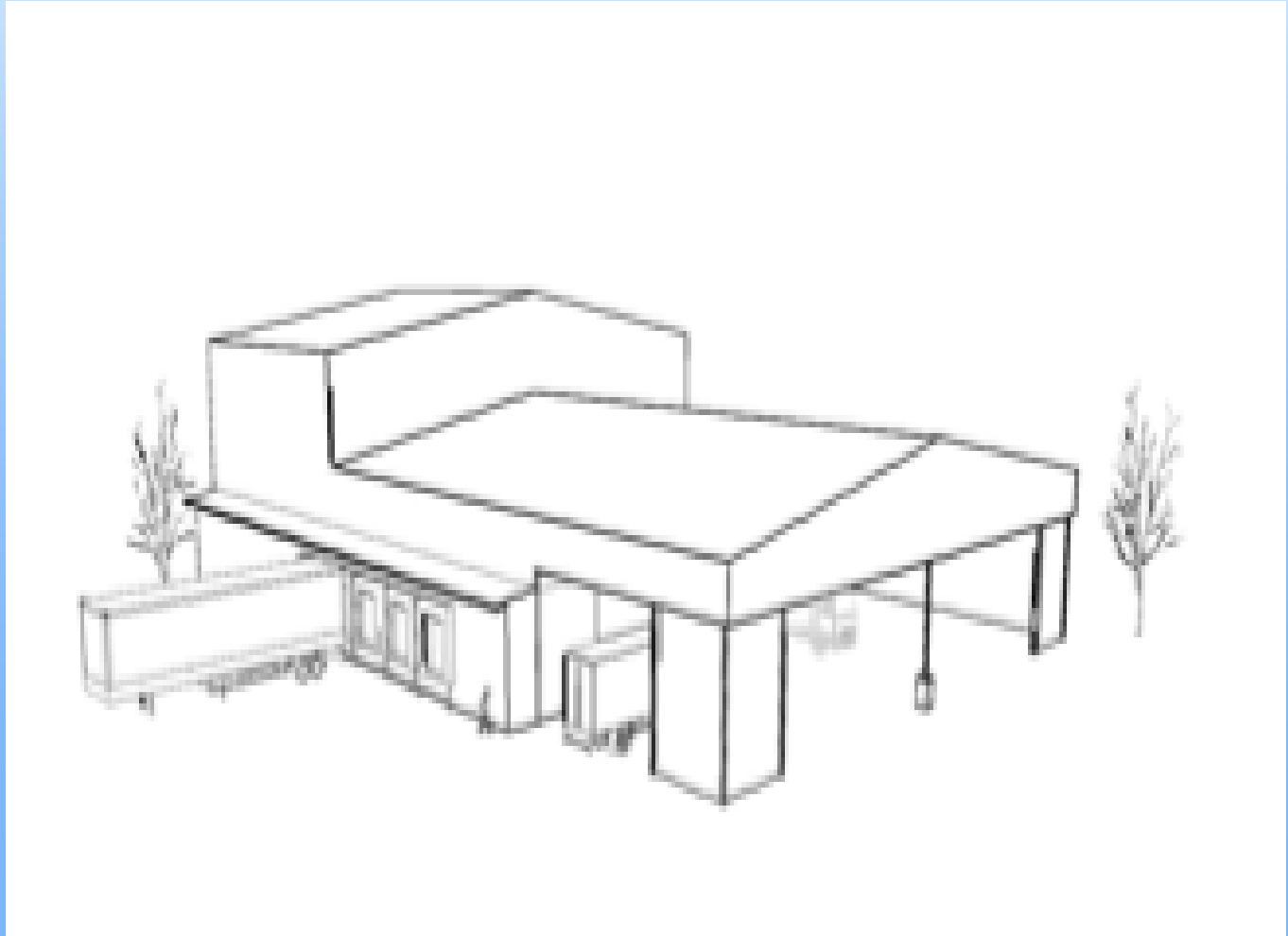


Illustration (1/4)

AAA small storage/cross-docking facility

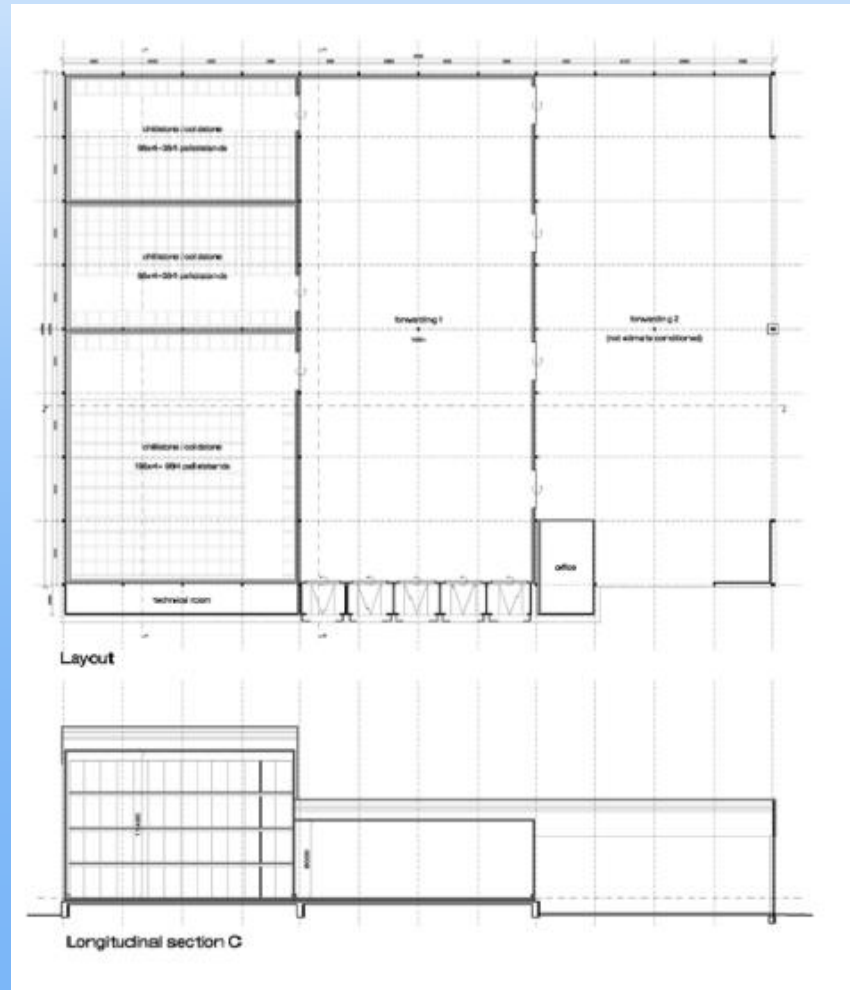


Illustration (2/4)

AAA small storage/cross-docking facility

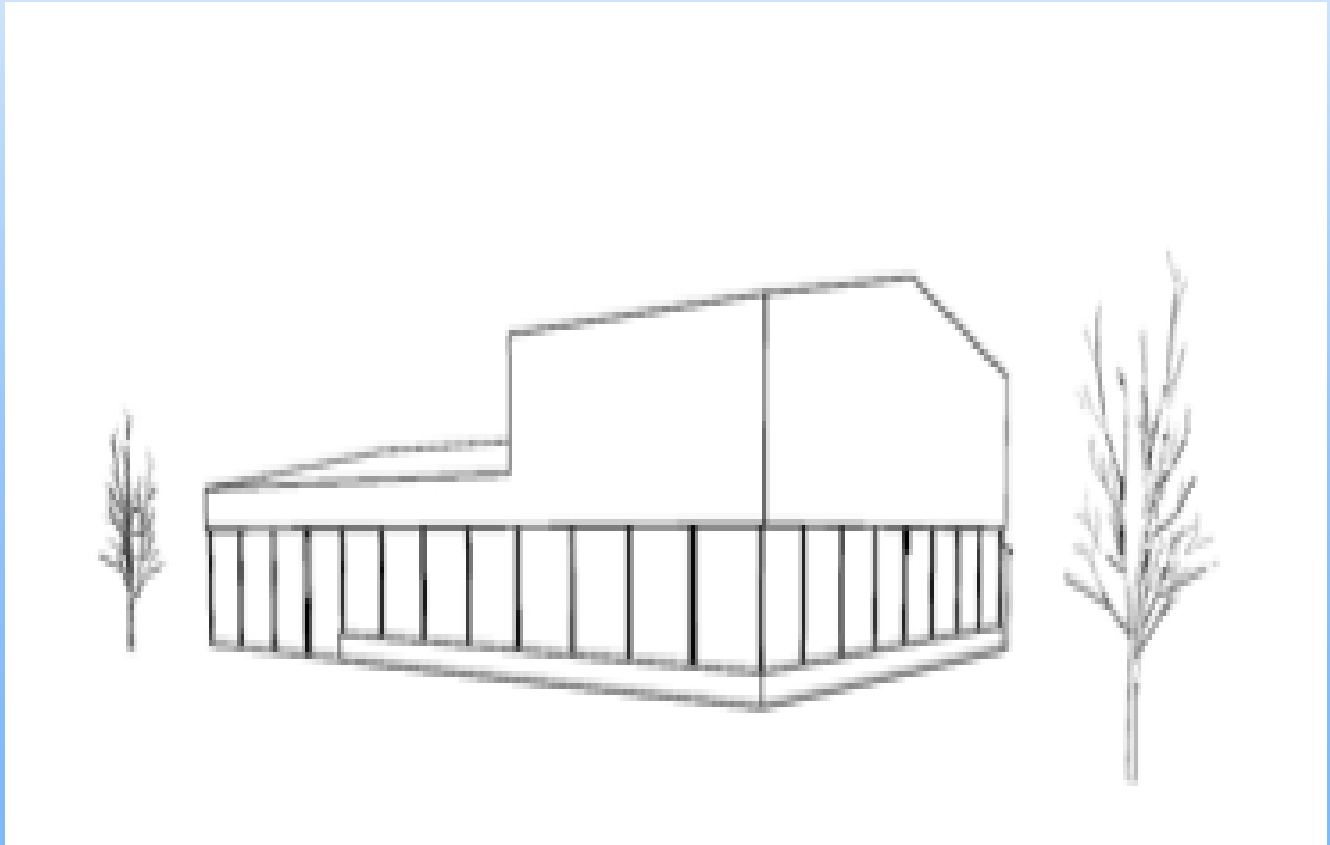


Illustration (3/4)

AAA small storage/cross-docking facility

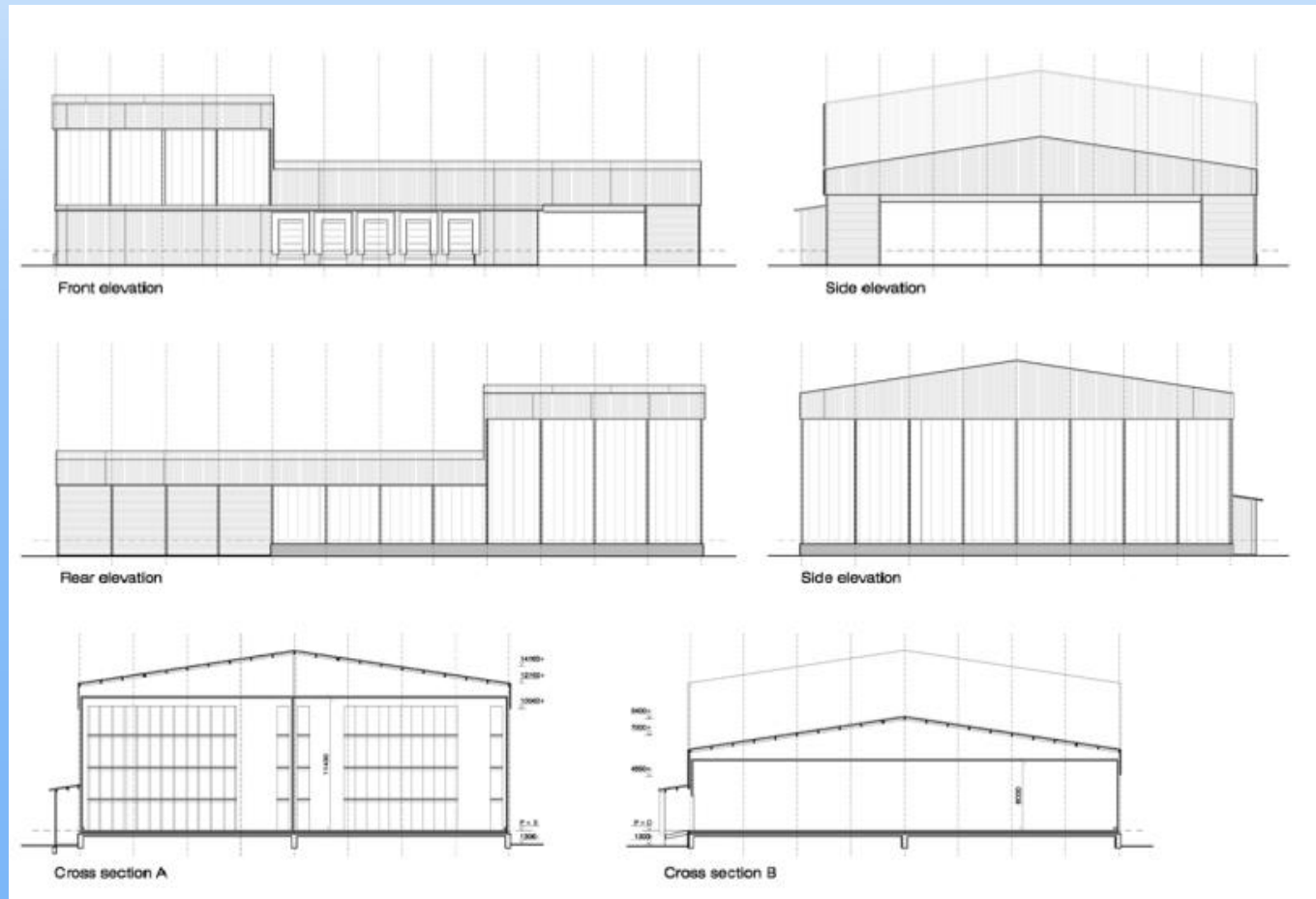
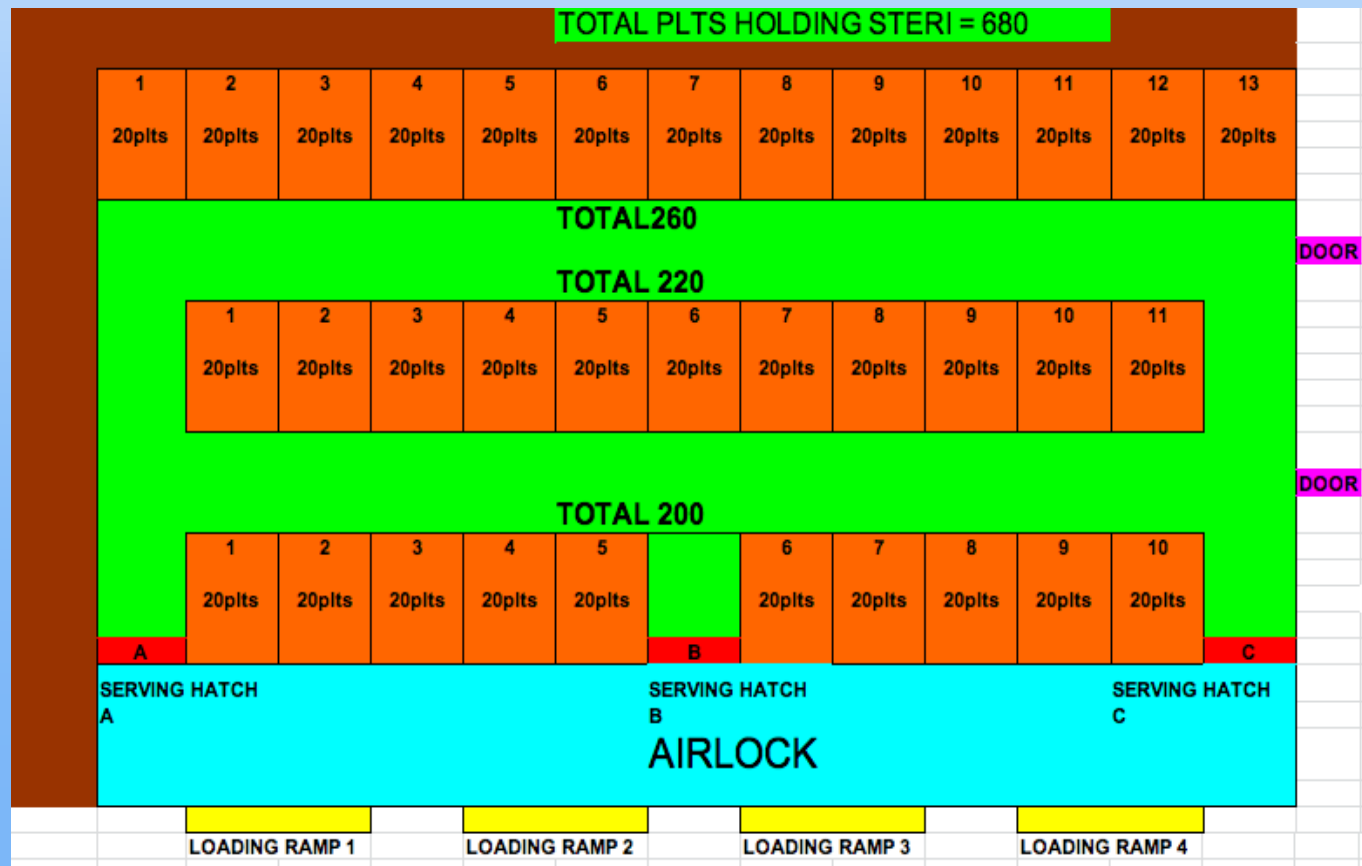


Illustration (4/4)

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Japan Steri in SA, for info only

Illustration can serve as *model* for small regional store in AAA project



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Japan Steri in SA, for info only

Illustration can serve as model for small regional store in AAA project



AAA

grading/packing

potatoes



AAA

grading/packing

beans

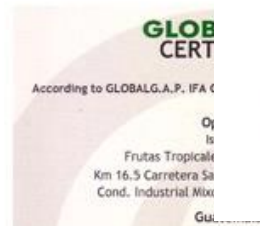


apples



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quality certificates



GLOBALG.A.P.
The Global Partnership for Good Agricultural Practice



the AAA project

Our goal

at the horizon



the AAA project

Small is beautiful



But certain size is needed



as distance/time shld not be underestimated

the AAA project



Within 5 years
cold stores in agricultural areas in at least 36 APEC areas

The partnering would in itself develop further opportunities which would emerge in time

hence local and regional sites should:

- ▣ Land : acquire complete futural site
- ▣ Funds: enabling fast local expansion



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The project must be recognised

Branding like e.g. hotels

▣ **therMo 1**

▣ **therMo 3**

indicating specialism

Vegetables fish fruits meat

▣ **therMo 2**

▣ **therMo 4**

easily recognized by world fruit and vegetable traders

+

by the Unilever's and Nestle's of this world

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Comply with.....

- Futural thinking is crucial
- Thinking about all kinds of possibilities and risks
- Building most modern facilities big or small

results - more or less automatically - in compliance
with all international standards and
requirements

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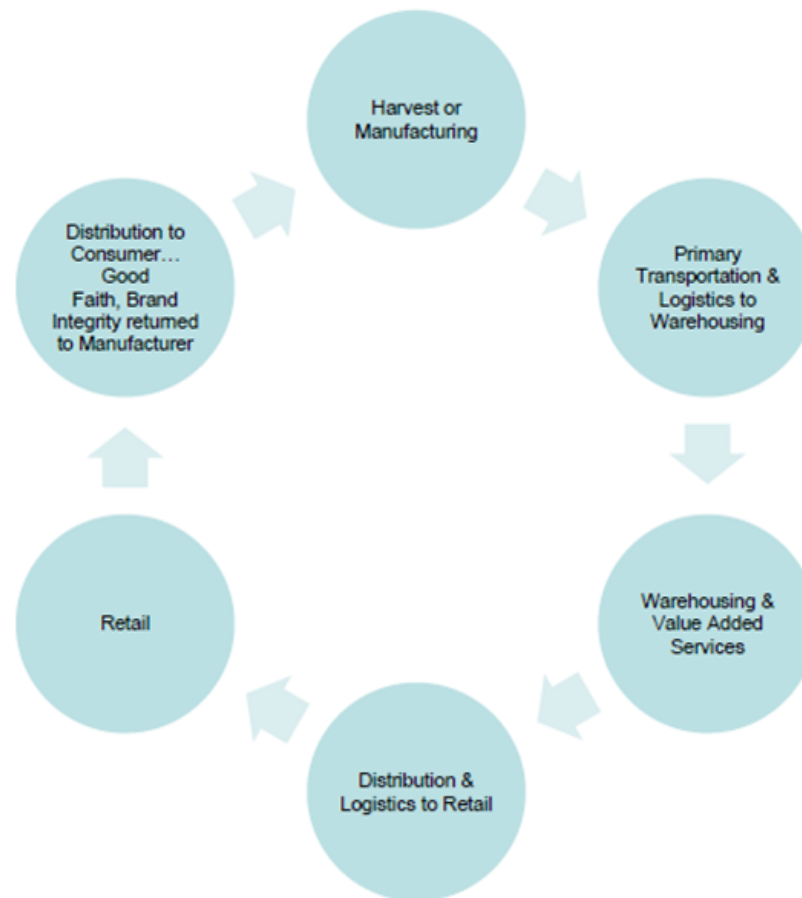
part of chain

- ▣ Farmer
- ▣ Grading
- ▣ Packing
- ▣ Storage
- ▣ Transport traders
- ▣ Sales outlets
- ▣ Consumers

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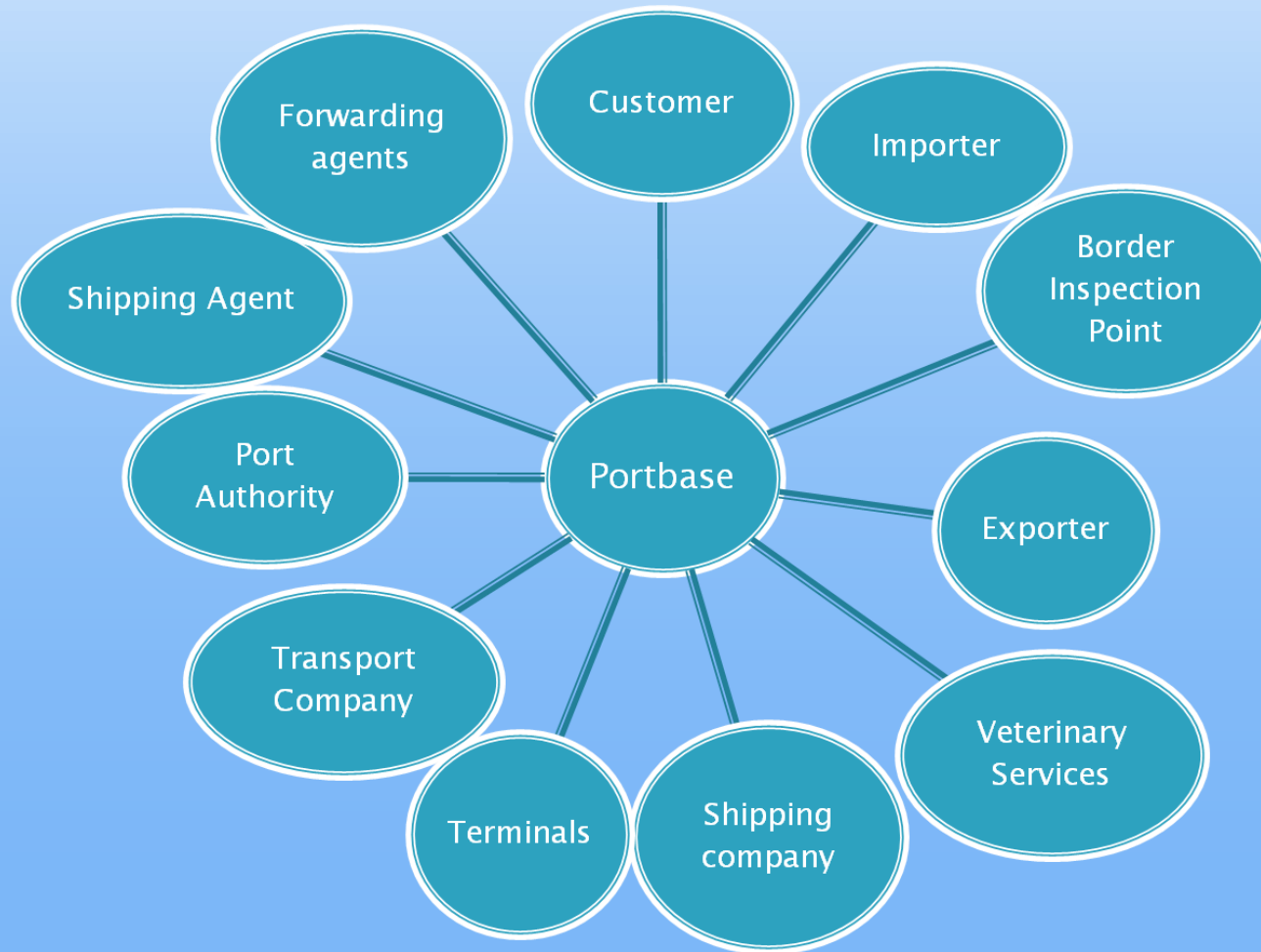
part of a chain

Typical Food Value Chain



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communication



All partners have some responsibilities

- Good Agricultural Practices G.A.P.
- Good Manufacturing Practices G.M.P.
- Hazard Analysis and Critical Control Point (HACCP)

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part of chain

Part of food value chain

Part of Cold Chain

All partners in the chain have some responsibilities, most important one

- Food safety

Foodborne illness



Major sources of foodborne illness

E.Coli

Salmonella

Clostridium Botulism

Listeria

Foodborne illness associated with fruits and vegetables

1973-1987	2% of outbreaks
1987-present	Over 5% of outbreaks

Approximately 15-20 of foodborne illness outbreaks reported to the CDC each year are associated with fruits or vegetables (including fresh juices).

Foodborne illness



Wooden wall bumper provides an ideal environment for growth of bacteria

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Prevention



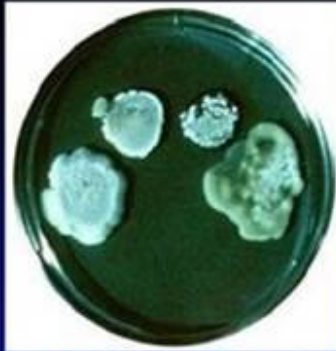
AAA

Prevention

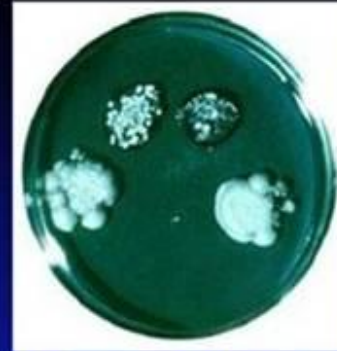


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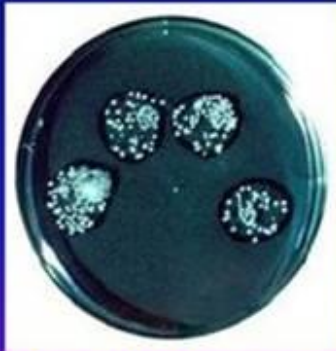
Prevention



Unwashed

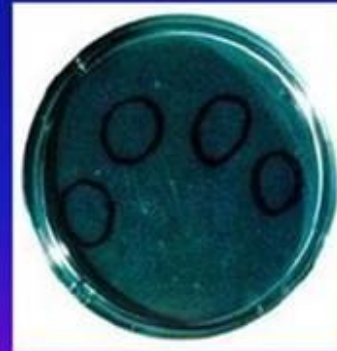


Rinsed hand



**Washed 20 sec using
soap and water**

From: University of
Georgia



**Washed 20 sec and
then sanitized**

Foodborne illness

Where people work
Mistakes are being made
Incidents happen

Some are visible
Some are not



Incidents



Incidents



Incidents



Incidents to be prevented



Incidents to be prevented



AAA

various

Many other items to deal with

Politicians

Financing

(locally in partnership with locals a public / private partnership should be established

APEC Countries / World Bank / IFC / and

locally private investors out of Food Value Chain)

CSR

etc

Management:

Preferably a small qualified team

APEC countries:

you have to agree it
you have to embrace it
and

--- Launch the project

and

--- appoint 2 working committees



Once this project has
succeeded

and it will

the proof in the pudding is
**no food shortage
needed in this world**

World produces already enough food
but

we do not manage to get it all on the table

via this project we prove it can be done

What was the question?

Can we limit food losses?

Yes, we can

Let's just do it!

Thank you very much for your attention!



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