



ITE (Italian Technology Equipment)
www.itenetwork.it

Italian Business Network

COMPOSITE INSULATED PANELS
Cold Storage - Cold Chain

ITE (Italian Technology Network)



composed by three Italian Companies :

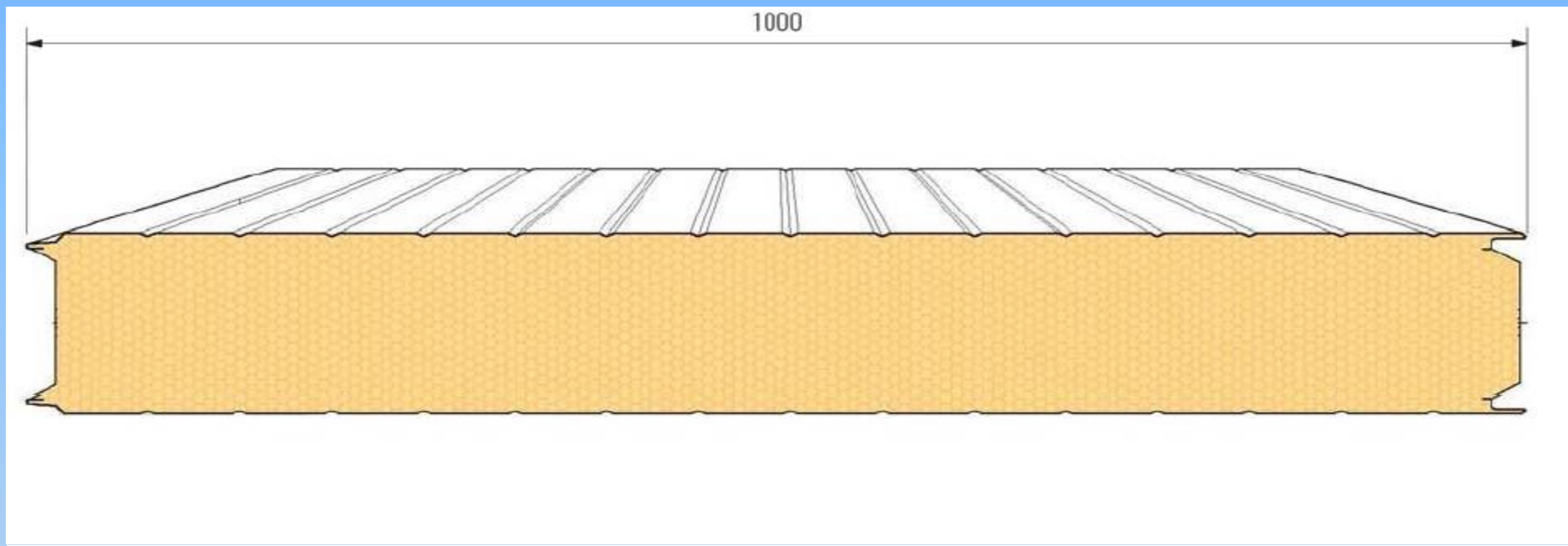
- **ITE S.r.l .(Milan Italy)**
- **ISC S.r.l (Mariano Comense (CO) Italy)**
- **Mipro S.r.l. (Bovisio Masciago MB- Italy)**

All the equipment and devices are designed according to the Customer's need and fully manufactured in Italy



COLD STORE SYSTEMS

Cold storage panel

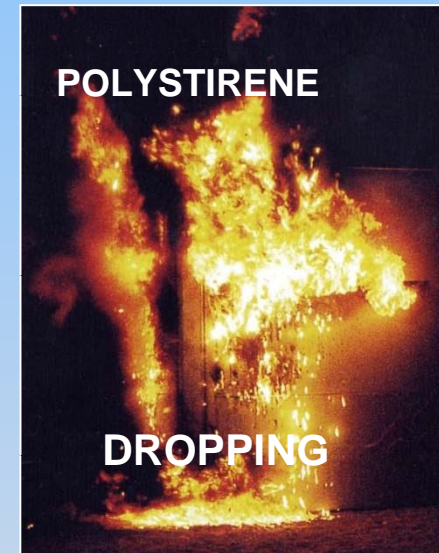




PANEL COMPONENTS

STEEL SHEETS : PREPAINTED GALVANIZED STEEL
INSULATION CORE MATERIAL : POLYURETHANE (PUR-PIR)

FIRE REACTION (EN13823 - EN 13501-1)





COLD STORE SYSTEMS

VAPOUR BARRIER

EXTERNAL ATMOSPHERE

INTERNAL ATMOSPHERE

VAPOUR FLOW



Temperature: 25°C
Relative humidity: 60%
Vapour pressure: 2,69 kPa

Temperature: 10°C
Relative humidity: 80%
Vapour pressure: 0,21 kPa

DP = 2,48 KPa



COLD STORE

fruit and vegetable

POSITIVE TEMPERATURE – (From 0° C to +12° C)



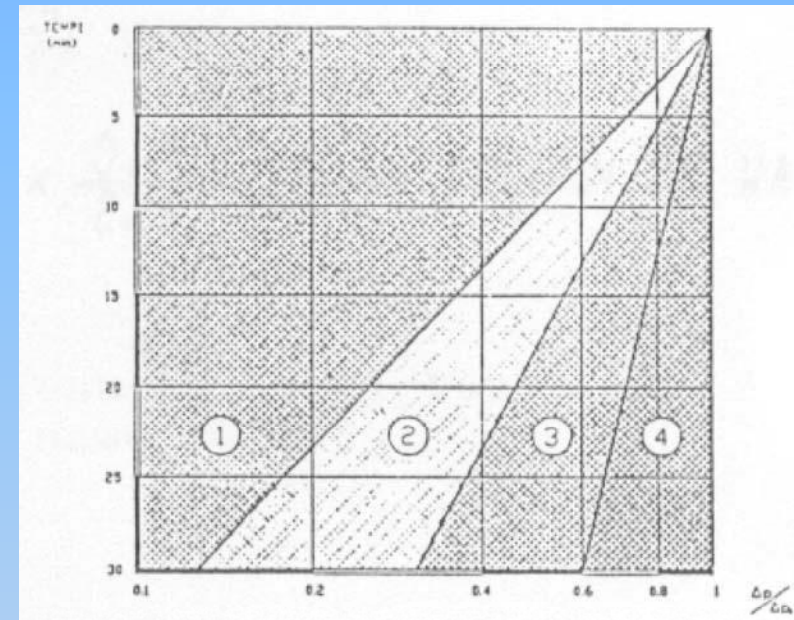
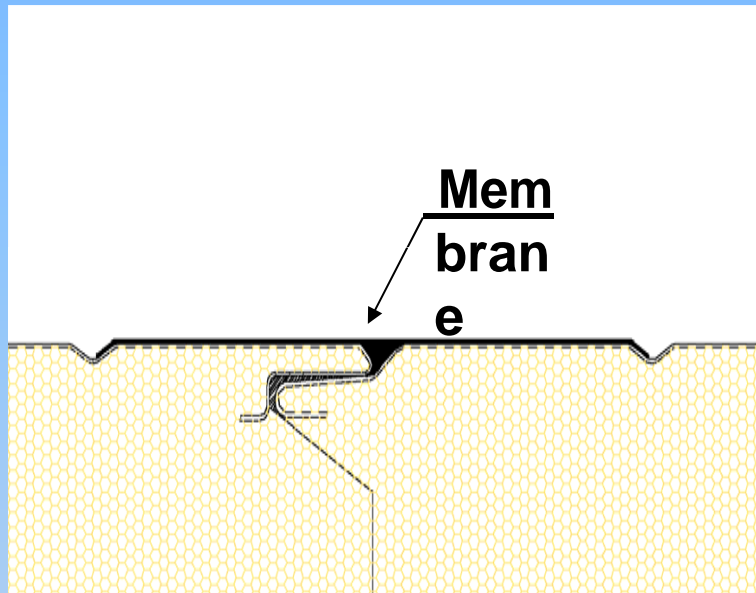
Species	Atmosphere composition		Temperature °C	Preservation Days
	% CO ₂	% O ₂		
APPLES:				
Delicious	0 ÷ 2.5	3	0 ÷ 2	200 ÷ 250
Golden Delicious	3	3	0 ÷ 3	180 ÷ 200
Granny Smith	0 ÷ 3	3	0 ÷ 1	250
Imperatore	1 ÷ 3	3	0 ÷ 3	200 ÷ 250
Jonathan	2 ÷ 5	3	0 ÷ 4	160 ÷ 180
Canadian Renetta	0 ÷ 5	3	4	250

CONTROLL OF AIR TIGHTNESS



- AIR IS FORCED IN THE COOL ROOM BY FAN

- PRESSURE CHANGES ARE TESTED EVERY 30'



- 1- UNACCEPTABLE
- 2- TRADITIONAL CA
- 3- CA L.O.;
- 4- CA ULO



LOGISTIC COLD STORE FRUIT AND VEGETABLE





COLD STORE

POSITIVE TEMPERATURE CORRIDORS
NORMAL ATMOSPHERE





COLD STORE

WORKING AREA for FRUIT and VEGETABLE





COLD STORE CONTROLLED ATMOSPHERE





COLD STORE

MEAT



COLD STORE

FISH





COLD STORE DIARY



COLD STORE LOGISTIC CENTERS

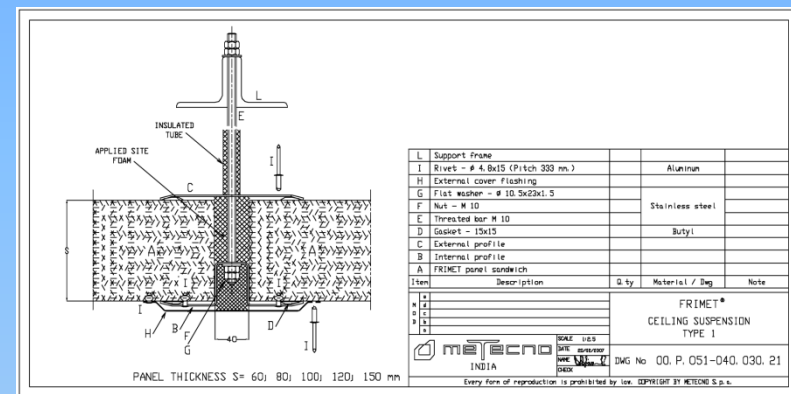




LOGISTIC COLD STORE WORKING AREA



COLD STORE INSTALLATION





COLD STORE

TECHNICAL CORRIDOR

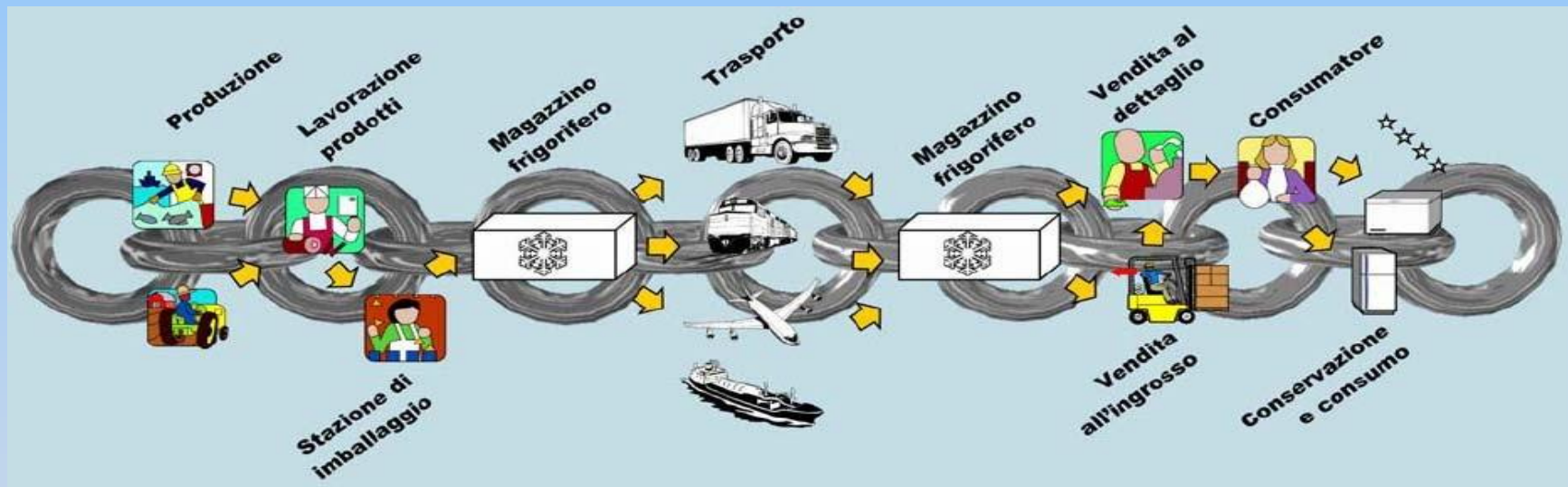




Strategic way to contribute to the economic growth and poverty reduction

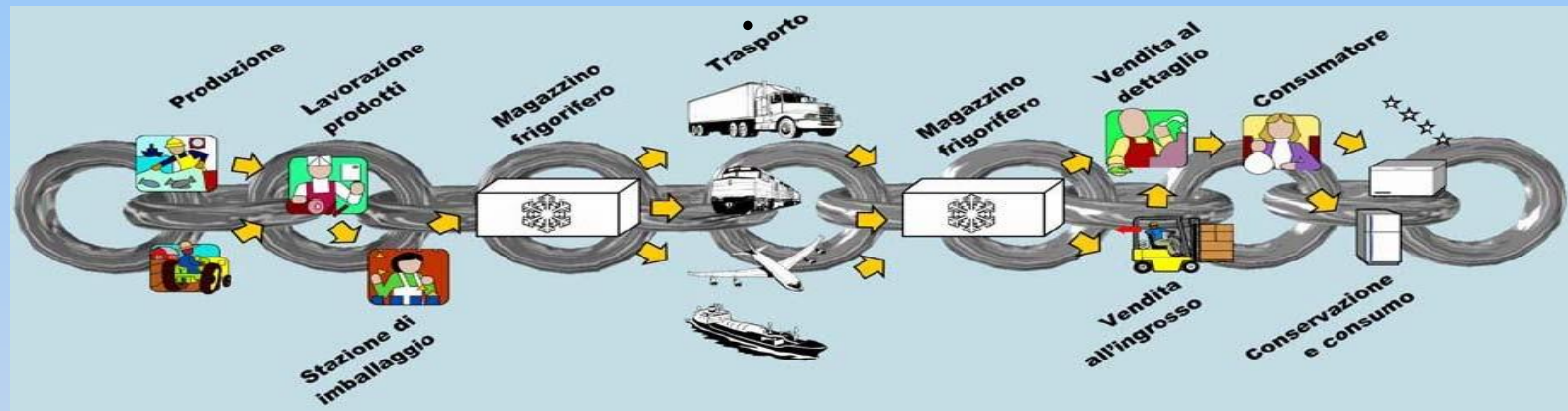
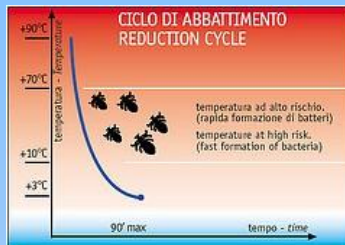
Foodstuffs- Cold Chain

"the continuity of the means employed in sequence to ensure the preservation at low temperature of perishable goods from production to final consumption."



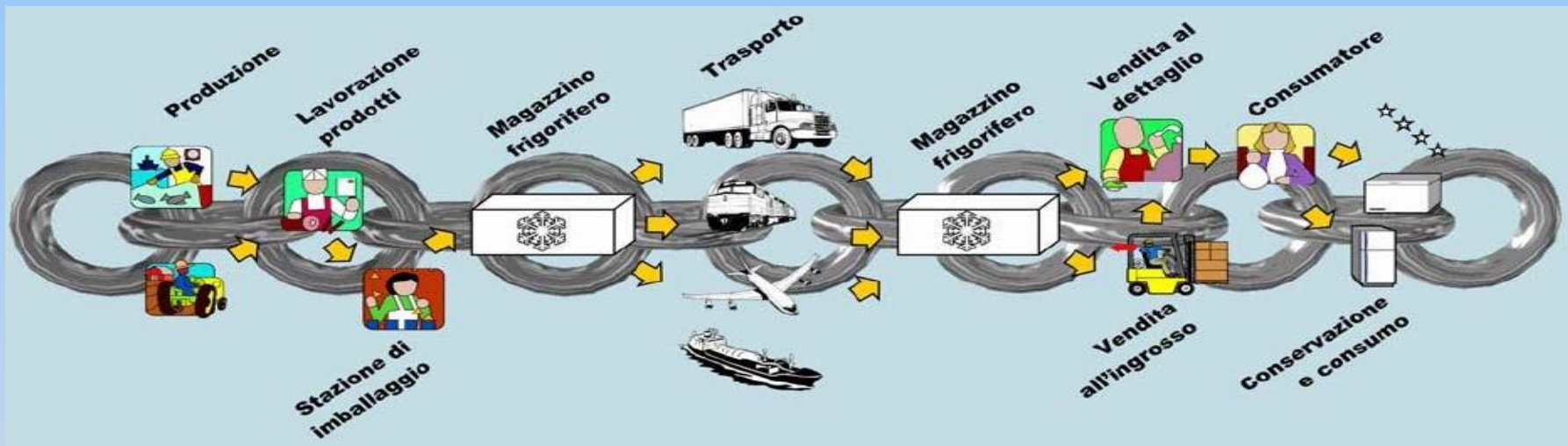


1) the first storage of the product just collected, for fruit and vegetable , with rapid reduction of its temperature (precooling);



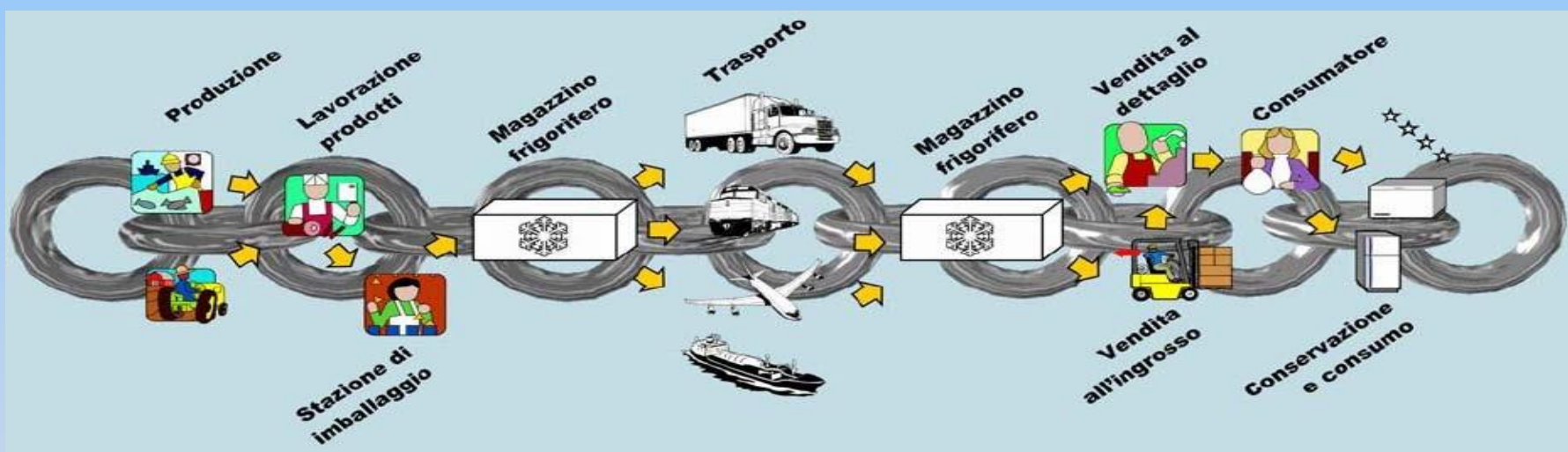


-2) processing the foodstuffs in refrigerated ro



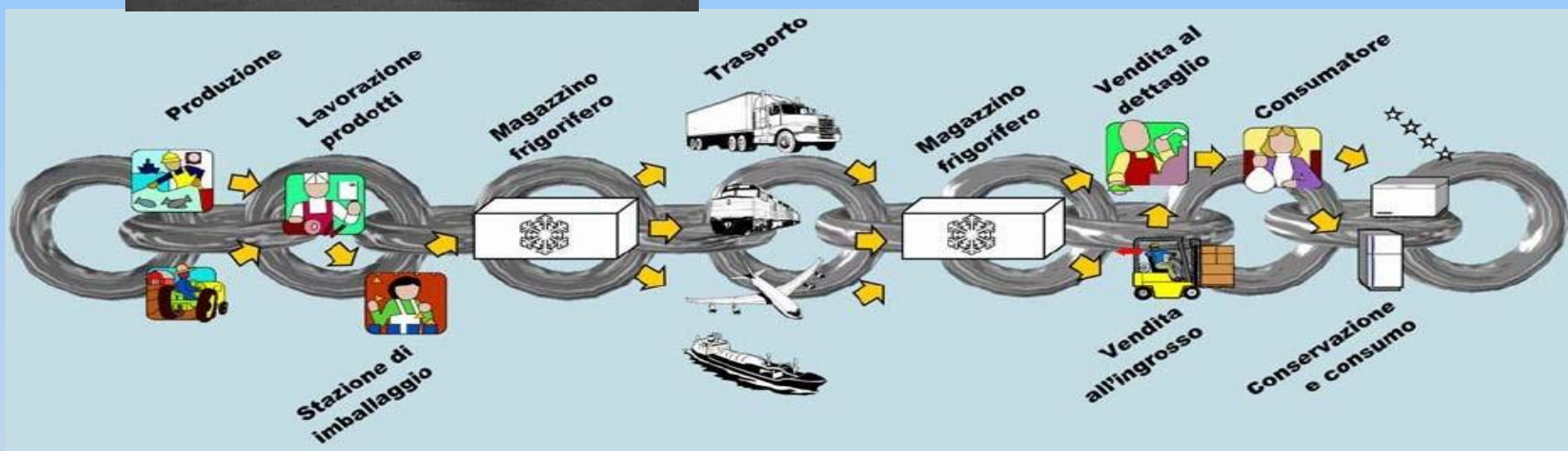


- 3) Cold storage at the production site



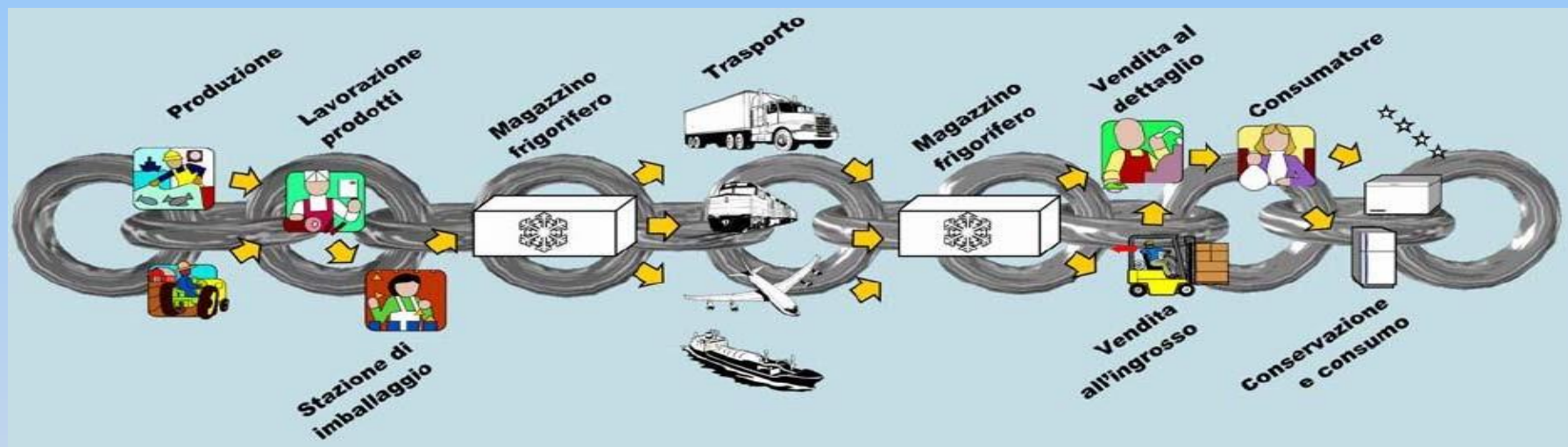


- 4) transportation from the production sites to the logistic cold stores and from the port to the logistic cold stores for imported foodstuffs



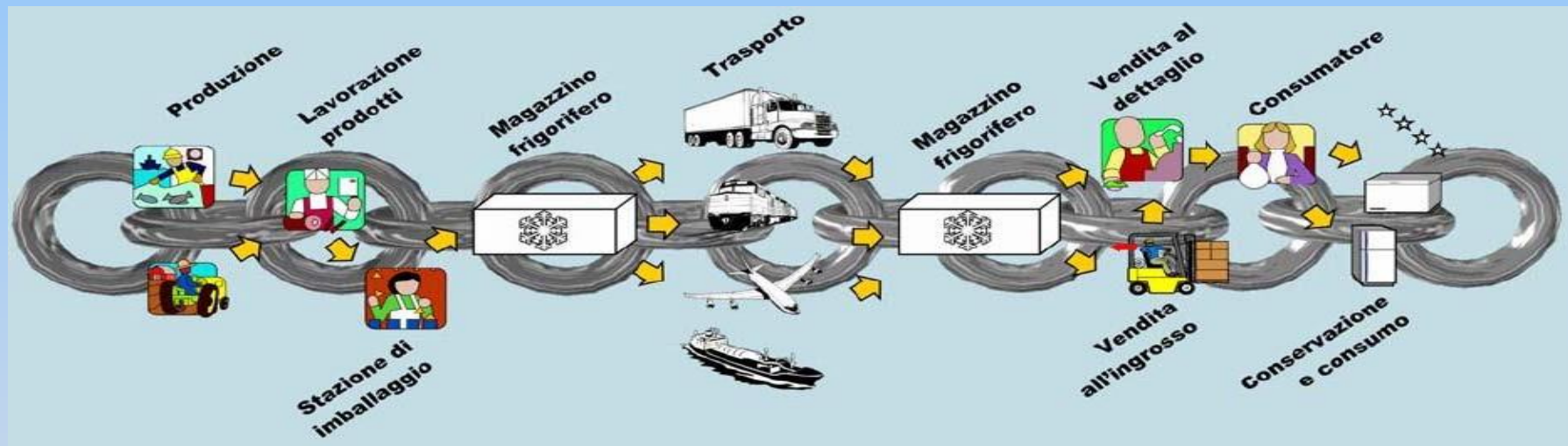


- 5) Cold storage at the logistic stores



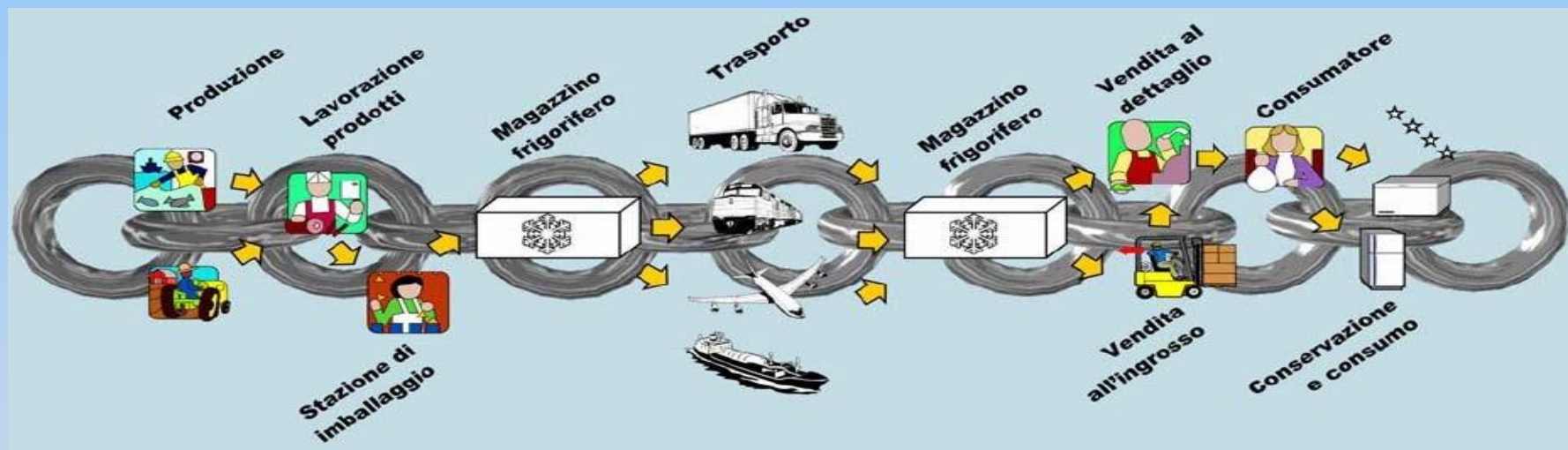


- 6) delivery from logistic cold stores to sale points



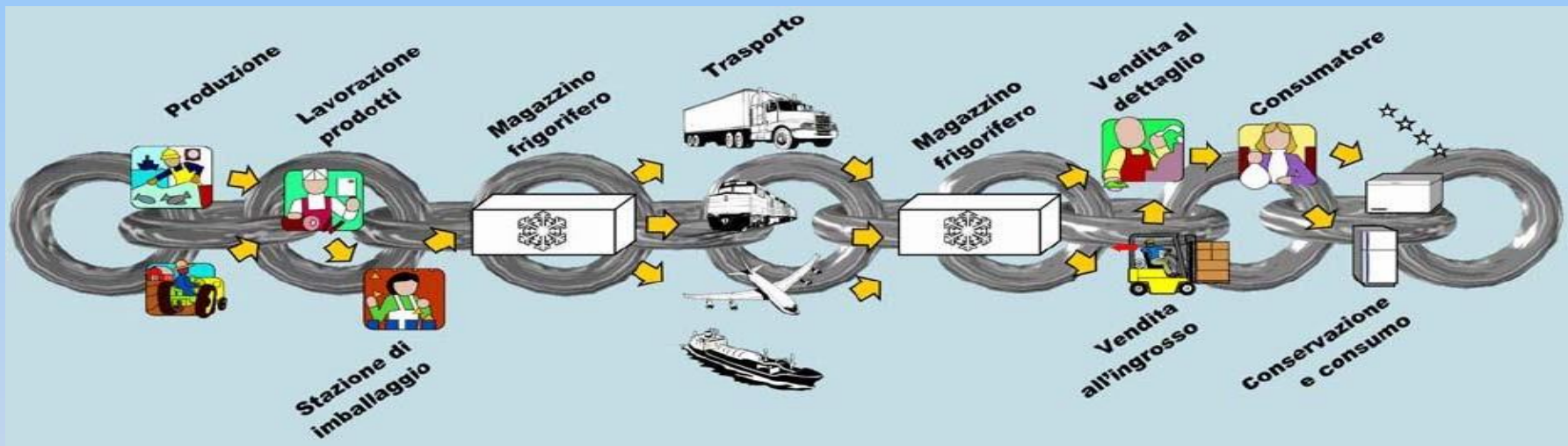


-7) storage at the sale points in special counters and small cold rooms



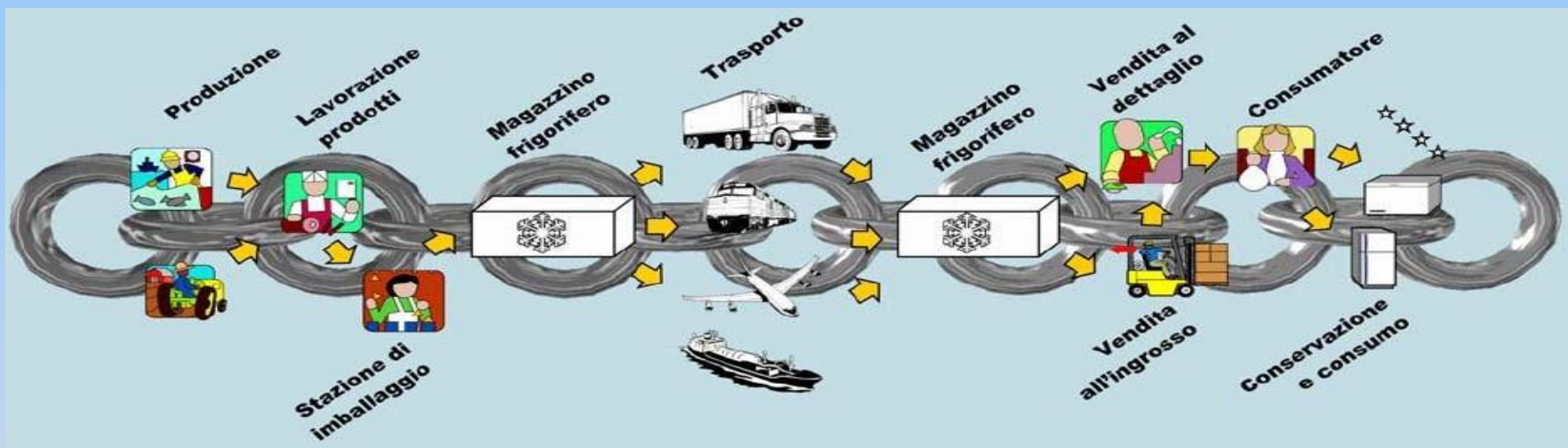


- 8) transportation from the sale centers to the consumption points (restaurants ,communities private houses , etc.)





- 9) storage at the consumption points , domestic refrigerators.





Foodstuffs Cold Chain

finally

- a) preserves any perishable goods*
- b) improves the foodstuffs availability for a larger people*
- c) reduces the absolute poverty*
- d) improves the hygienic standards and the people's health*
- e) increases the quality of life*