Goods of Low Severity and High Frequency

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20th September, 2006

Tokio Marine and Nichido Fire Insurance Co., Ltd.

Goods of Low Severity and High Frequency

I. Target Cargo/ Risks
II. Why Loss Prevention
III. Process of Loss Prevention
   1. General Procedure
   2. Understanding the Situation
   3. Essence of Loss prevention
   4. Important Factors
IV. Customer Satisfaction

I. Target Cargo/ Risks

We mainly take vehicles as an example of goods of Low Severity and High Frequency

because

such damages are frequently seen in the international transportation of vehicles worldwide.

I. Target Cargo/ Risks

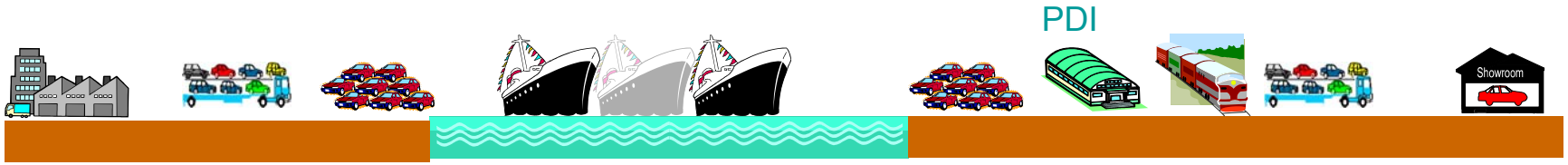
Low F/D and High F/D: What's the difference?

Low Frequency and High Severity

Damage takes place in huge storage yards and facilities.

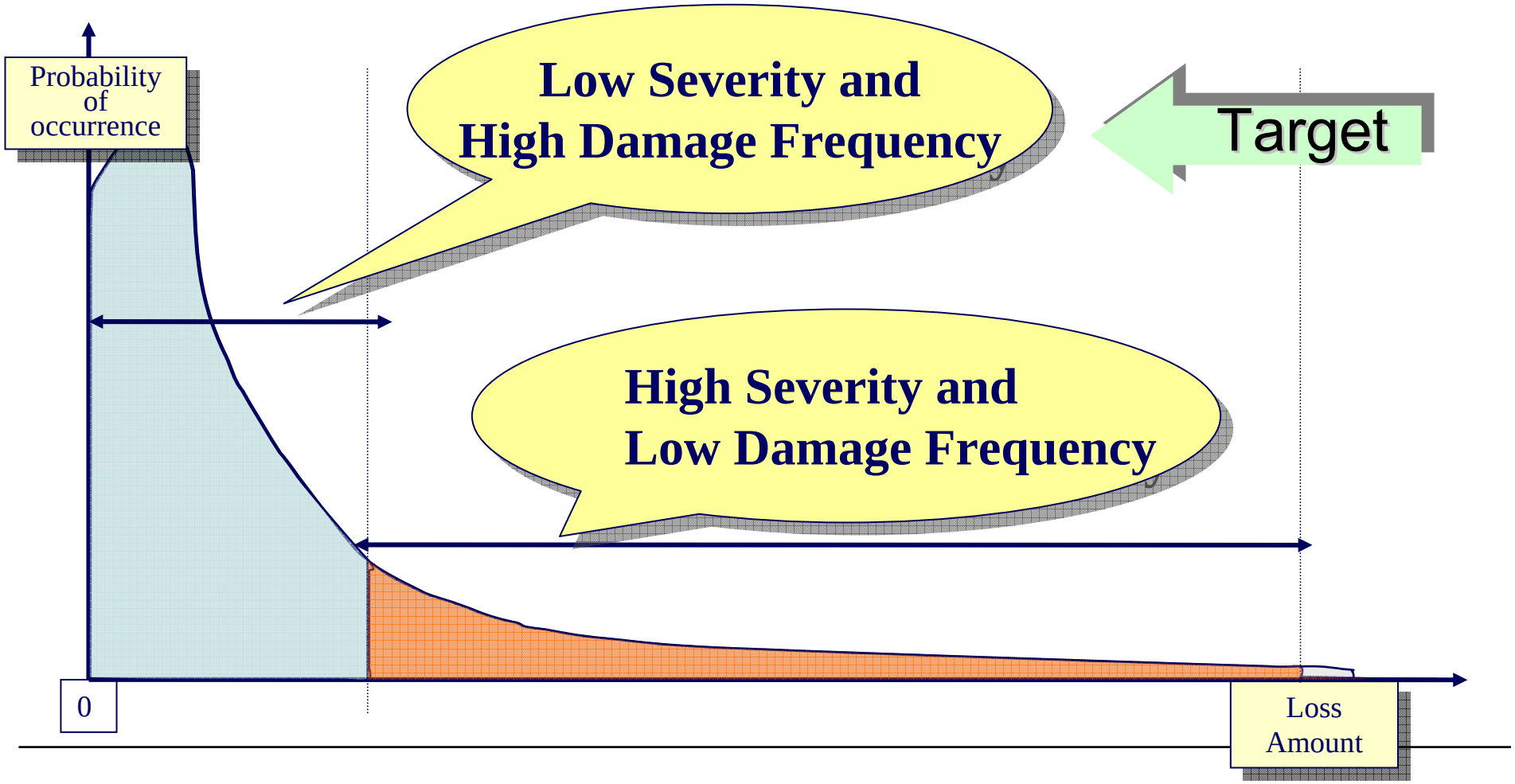
I. Target Cargo/ Risks

High F/D occur during Transportation to individual cars.



These damages are small but important because of their frequency.

I. Target Cargo/ Risks



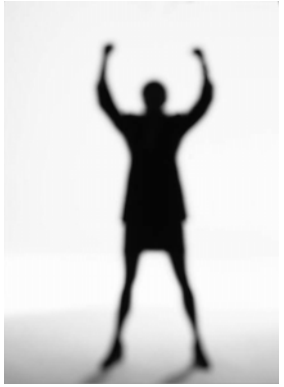
II. Why Loss Prevention for those damages?

You want to receive your long waited new car with beautiful condition.

But if you see damages on your car finally arrived... if its arrival was long delayed because of the accident on the way...

It can be just a matter of **Transportation**.

But it will significantly influence your **Image** of the **Vehicle** and the **Manufacturer**.



III. Process of Loss Prevention - Items

1. General Procedure
   Create Loss Prevention Cycle
2. Understanding of the situation
   a) Investigation and Knowledge
   b) Data Utilization
   c) survey at Sites
3. Essence of Loss Prevention
4. Important Factors for Loss Prevention
   4C's

1. General Procedure

Loss Prevention Cycle

Damage Occurrence

Communication

Possible Cause

Statistics

Surveys

Possible Solution

Control

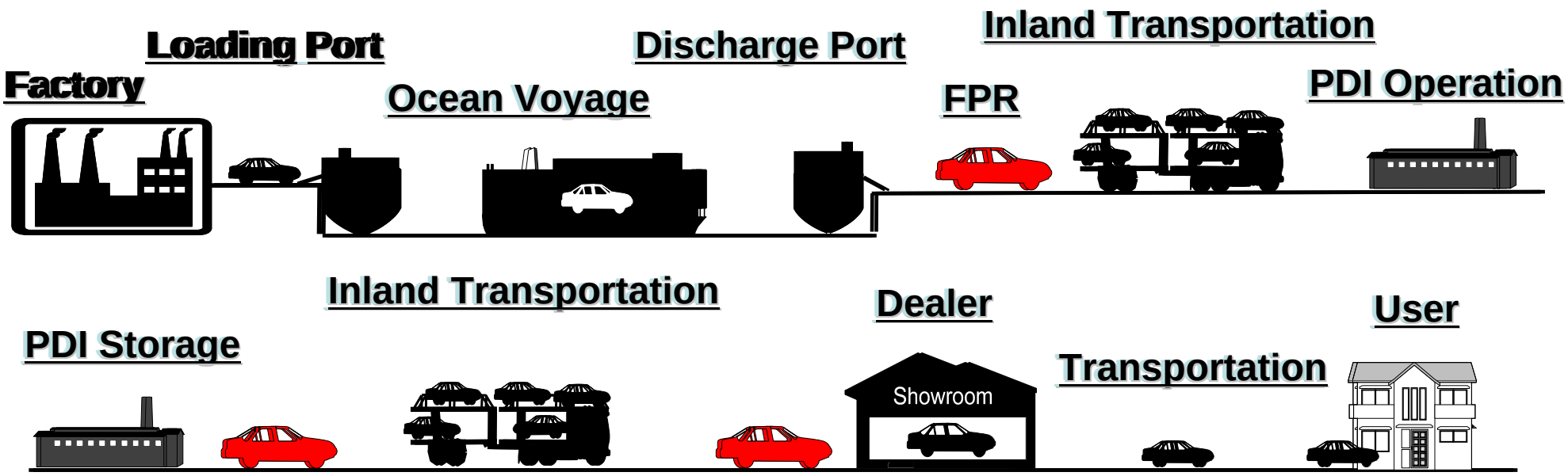
Care

Implementation of Counter Measures

Continuity

Investigation - Logistic Flow

Knowledge of normal transportation



2. Understanding of the situation- Investigation & Knowledge

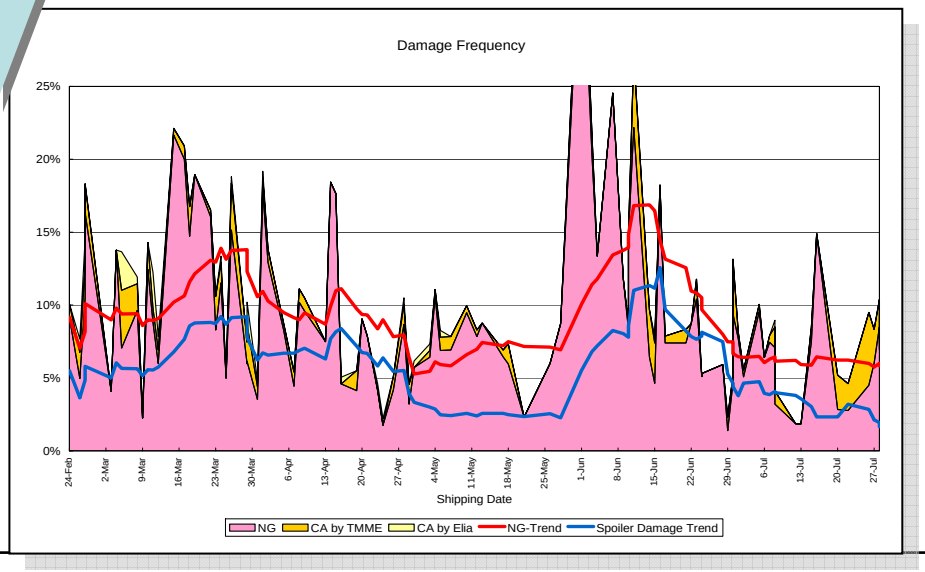
Logistic Flow

2. Understanding of the situation- Investigation & Knowledge

Analysis: Statistics with various methods

Objective
Accurate
Wide Range
Quick
Suggestive

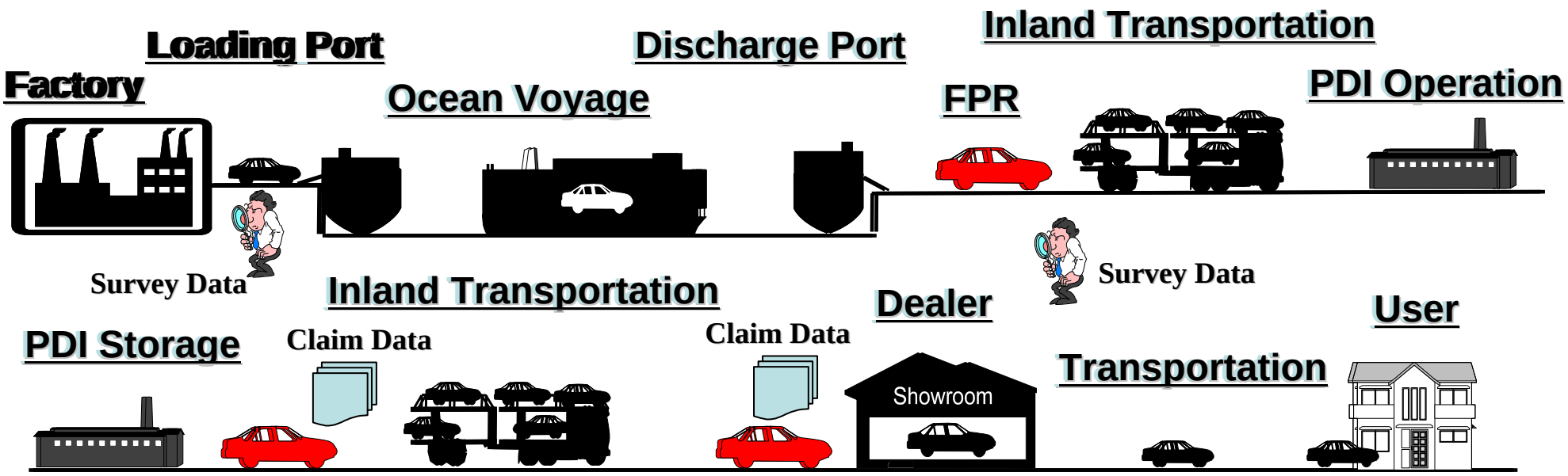
Useful Information



2. Understanding of the situation- Investigation & Knowledge

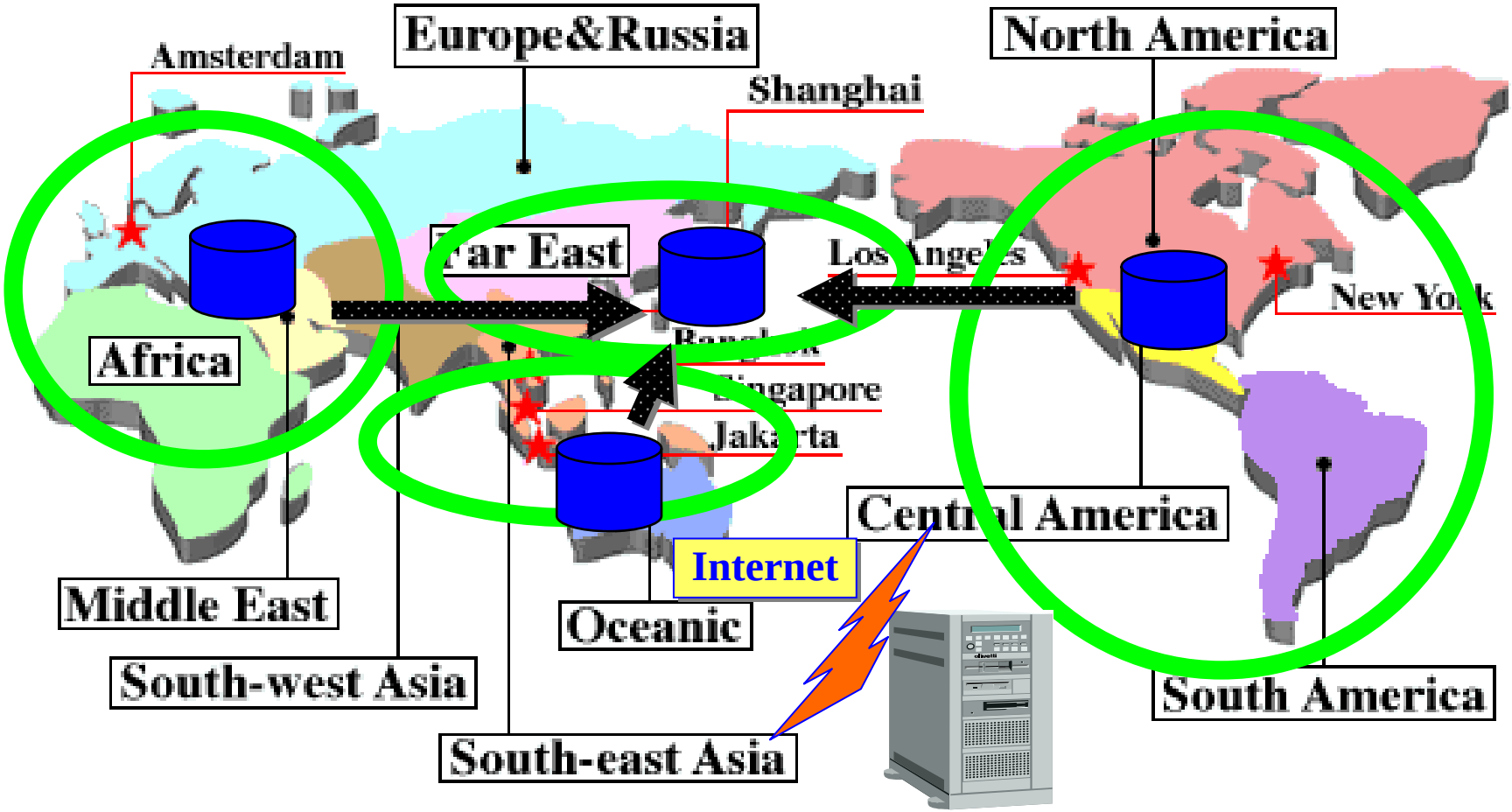
Data Collection & Monitoring

Vehicle condition checked in normal logistic flow



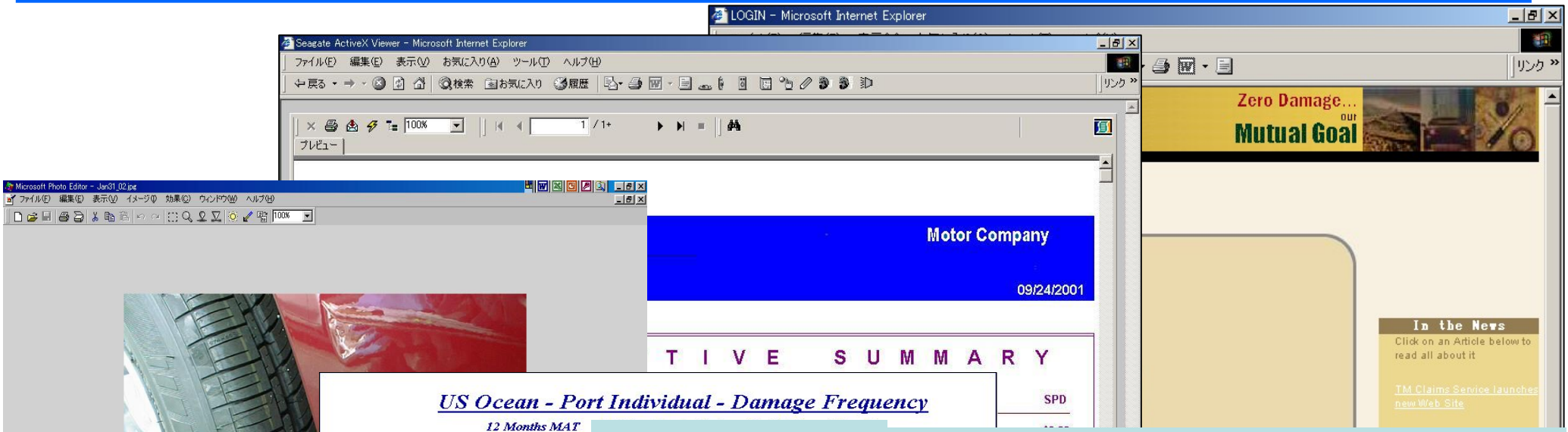
2. Understanding of the situation- Investigation & Knowledge

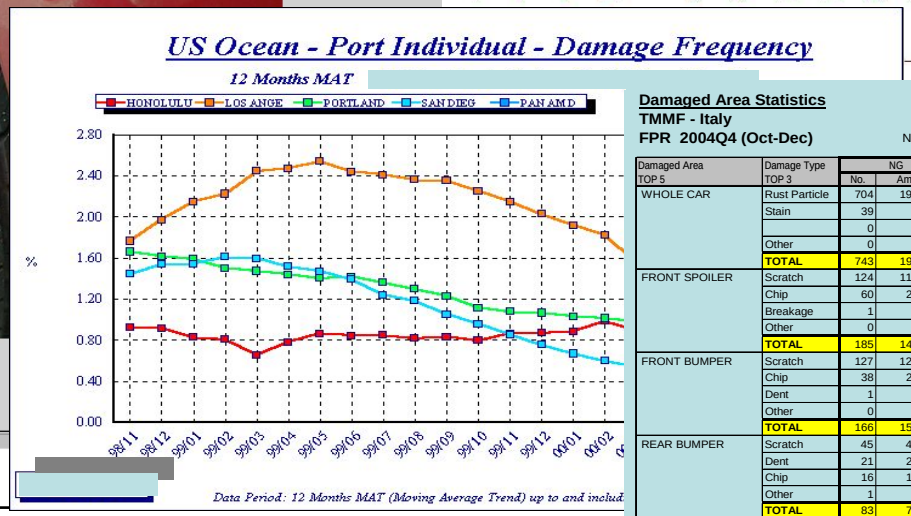
Data Collection & Monitoring



2. Understanding of the situation- Investigation & Knowledge

Data shown with variety

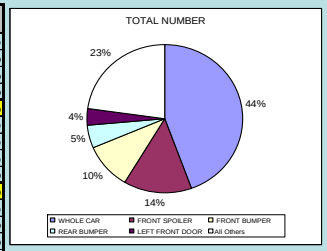


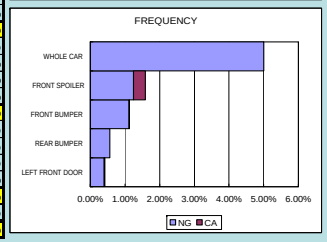


Damaged Area Statistics
TMMF - Italy
FPR 2004Q4 (Oct-Dec)

Number of Discharged Car : 14,850

Damaged Area TOP 5	Damage Type TOP 3	NG No.	NG Amount	CA No.	CA Amount	Transport Damage Total No.	Transport Damage Total Amount	Transport Damage Total Freq.	Total Number	Total Freq.
WHOLE CAR	Rust Particle	704	19,120.00	0	0.00	704	19,120.00	4.74%	704	4.74%
	Stain	39	390.00	0	0.00	39	390.00	0.26%	39	0.26%
		0	0.00	0	0.00	0	0.00	0.00%	0	0.00%
	Other	0	0.00	0	0.00	0	0.00	0.00%	0	0.00%
	TOTAL	743	19,510.00	0	0.00	743	19,510.00	5.00%	743	5.00%
FRONT SPOILER	Scratch	124	11,509.31	3	105.81	127	11,615.12	0.86%	127	0.86%
	Chip	60	2,705.12	48	1,712.96	108	4,418.08	0.73%	108	0.73%
	Breakage	1	325.97	0	0.00	1	325.97	0.01%	1	0.01%
	Other	0	0.00	0	0.00	0	0.00	0.00%	0	0.00%
	TOTAL	185	14,540.40	51	1,818.77	236	16,359.17	1.59%	236	1.59%
FRONT BUMPER	Scratch	127	12,560.22	1	37.27	128	12,597.49	0.86%	128	0.86%
	Chip	38	2,151.77	0	0.00	38	2,151.77	0.26%	38	0.26%
	Dent	1	325.97	0	0.00	1	325.97	0.01%	1	0.01%
	Other	0	0.00	0	0.00	0	0.00	0.00%	0	0.00%
	TOTAL	166	15,037.96	1	37.27	167	15,075.23	1.12%	167	1.12%
REAR BUMPER	Scratch	45	4,128.05	0	0.00	45	4,128.05	0.30%	45	0.30%
	Dent	21	2,261.94	0	0.00	21	2,261.94	0.14%	21	0.14%
	Chip	16	1,445.00	0	0.00	16	1,445.00	0.11%	16	0.11%
	Other	1	95.66	0	0.00	1	95.66	0.01%	1	0.01%
	TOTAL	83	7,930.65	0	0.00	83	7,930.65	0.56%	83	0.56%
LEFT FRONT DOOR	Dent	49	12,348.57	0	0.00	49	12,348.57	0.33%	49	0.33%
	Scratch	6	798.80	1	132.92	7	931.72	0.05%	7	0.05%
	Chip	4	313.17	2	70.54	6	383.71	0.04%	6	0.04%
	Other	0	0.00	0	0.00	0	0.00	0.00%	0	0.00%
	TOTAL	59	13,460.54	3	203.46	62	13,664.00	0.42%	62	0.42%
All Others		377	148,333.20	2	73.97	379	148,407.17	2.55%	379	2.55%
TOTAL		1,613	218,812.75	57	2,133.47	1,670	220,946.22	11.25%	1,670	11.25%





Analysis: Basic Concepts: D/F, SPS, SPD

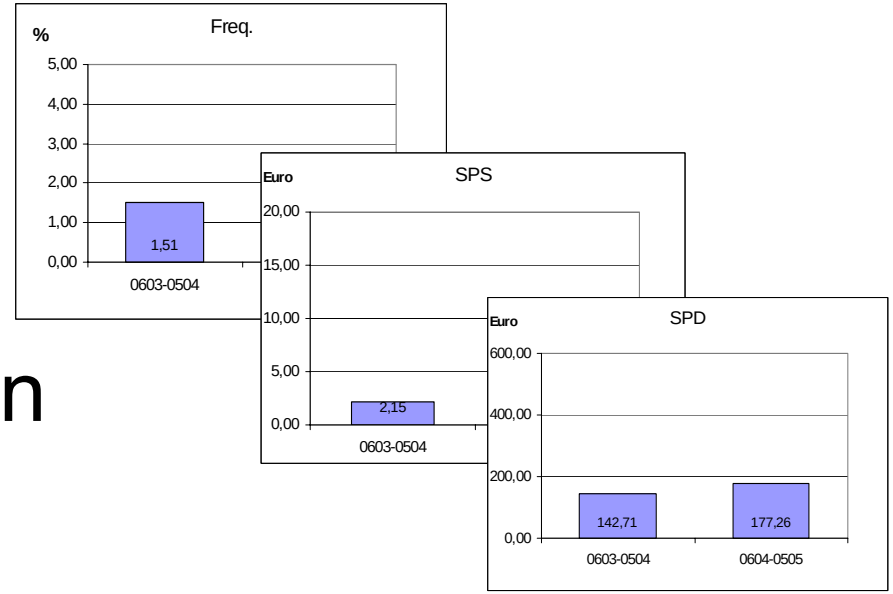
Analysis with Basic Concepts is effective to understand the situation.

What are the basic concepts we can use?

D/F, SPS, SPD

and

their combination



Analysis: basic concepts

Damage Frequency [D/F]

Damaged units/Shipped units

How many vehicles are damaged amongst all the vehicles shipped.

Points

-Easy to grasp the general situation

-Easy to compare with other shipments

Analysis: basic concepts

Severity per Shipped units [SPS]

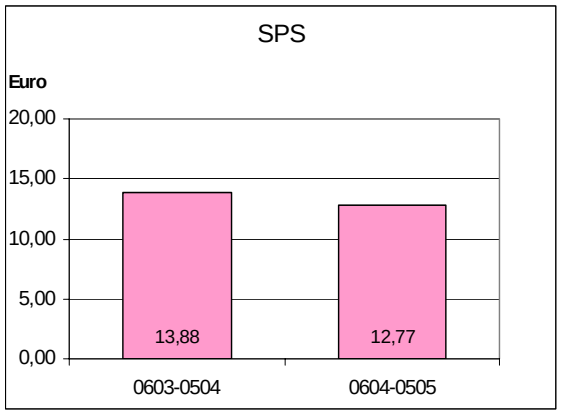
Damage amount/Shipped units

= Damage amount per one shipped vehicle

How much cost you can expect for each vehicle.

Points

Easy to foresee the costs for each shipments.



Analysis: basic concepts

Severity per Damaged units [SPD]

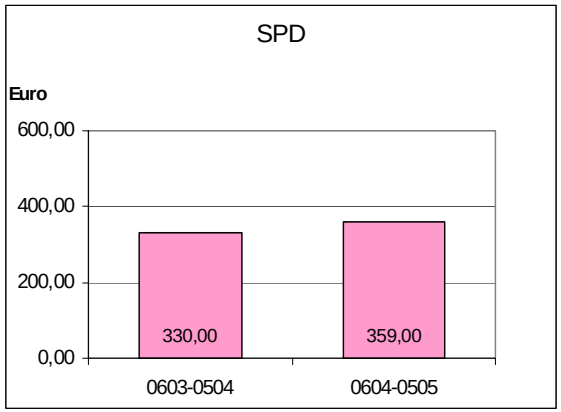
Damage amount/Damaged units

= Average repair cost

How much cost you can expect for repair of each damaged vehicle.

Points

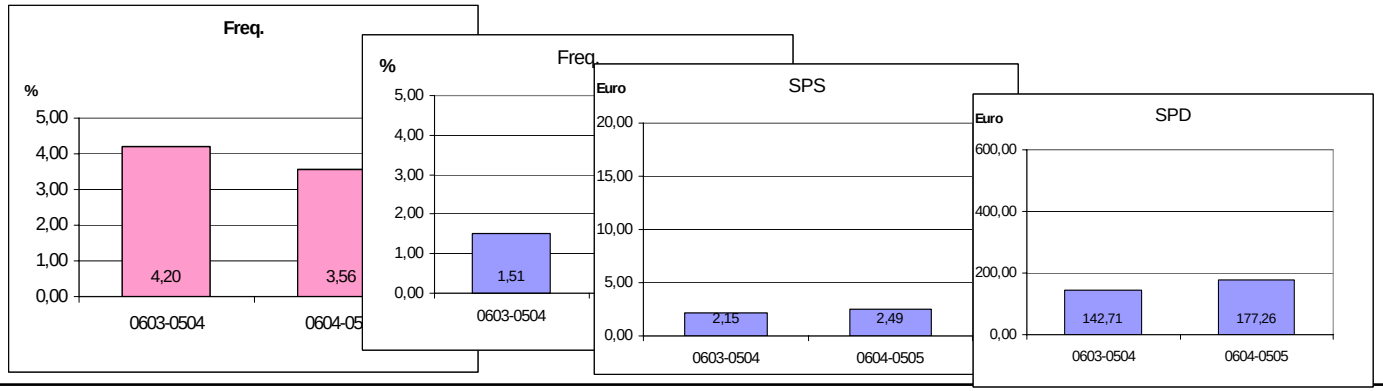
Evaluation of repair costs



Analysis: basic concepts

Combination of D/F, SPS, SPD

When D/F, SPS is high and SPD is low
→ Many small damages
When SPS, SPD is high and D/F is low
→ Limited number of rather big damages



2. Understanding of the situation- Investigation & Knowledge

Combination with other information

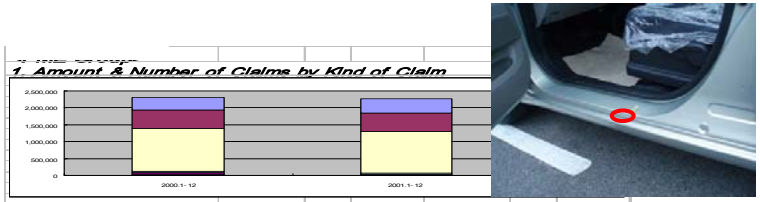
Statistical Data Analysis
General logistics information
Survey at sites in Logistics
Knowledge

→ Possible Cause of damages
→ Possible Counter Measures

2. Understanding of the situation- Investigation & Knowledge

Survey at Sites: combination with statistics

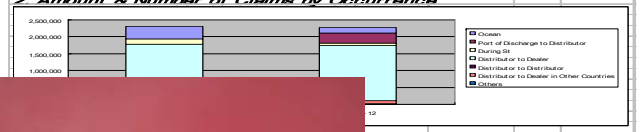
Statistics and actual damage condition



	2000.1- 12			2001.1- 12		
	Amount	%	Number	Amount	%	Number
Physical Damage	377,196	16.3%	805	425,922	18.7%	672
Dealer Return Claim	540,079	23.4%	1,445	545,556	23.9%	1,664
Pilferage, Theft	1,261,622	54.7%	1,494	1,246,013	54.7%	1,288
Burglary, Truckjack	46,891	2.0%	11	31,651	1.4%	13
Wet	70,618	3.1%	10	7,953	0.3%	4
Others	11,437	0.5%	13	22,540	1.0%	49
Total	2,307,744	100.0%	3,778	2,279,635	100.0%	3,690

Written Paid Base/ Monetary Amounts in EUR

2. Amount & Number of Claims by Occurrance



		2001.1- 12		
	Number	Amount	%	Number
	281	169,979	7.5%	116
		296,881		
	306	67,946		
	3,084	1,636,208		
	21	5,379		
	76	93,888		
	10	9,353		
	3,778	2,279,634		

Survey for facts finding

3. Understanding of the situation- Survey at Sites

Logistic Flow Tracing

Door Edge Chipping, Door Dent

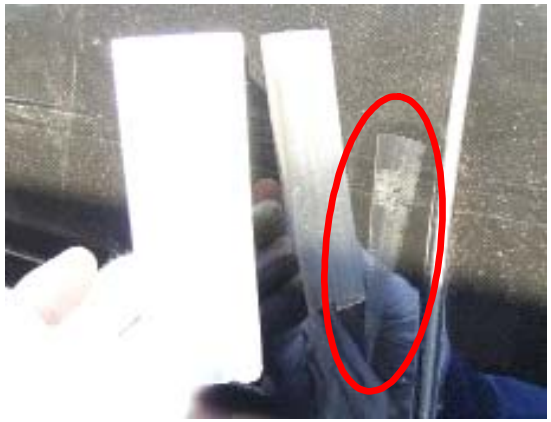
Hit by other doors

Bonnet, Door and Fender Dents

Touch by people, cargo and carrying tools

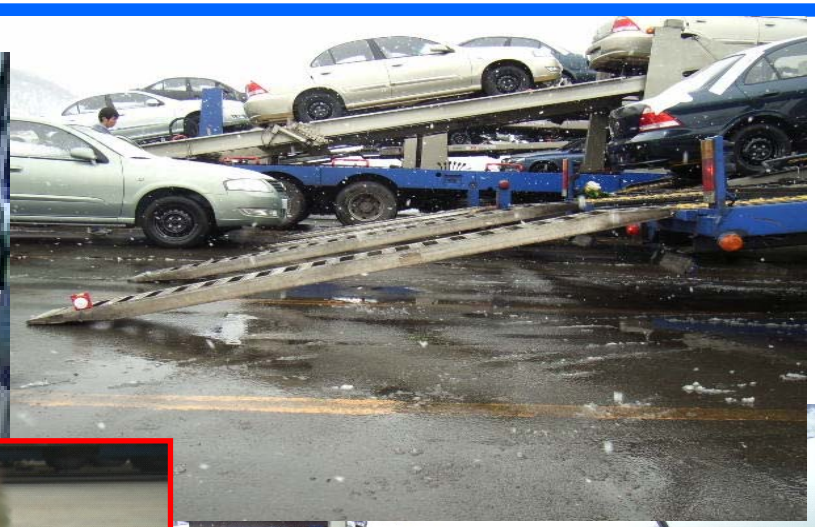
Scratches on Doors and Fenders

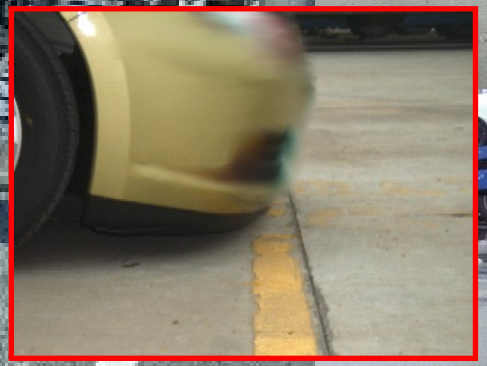
Touch by People and Tools

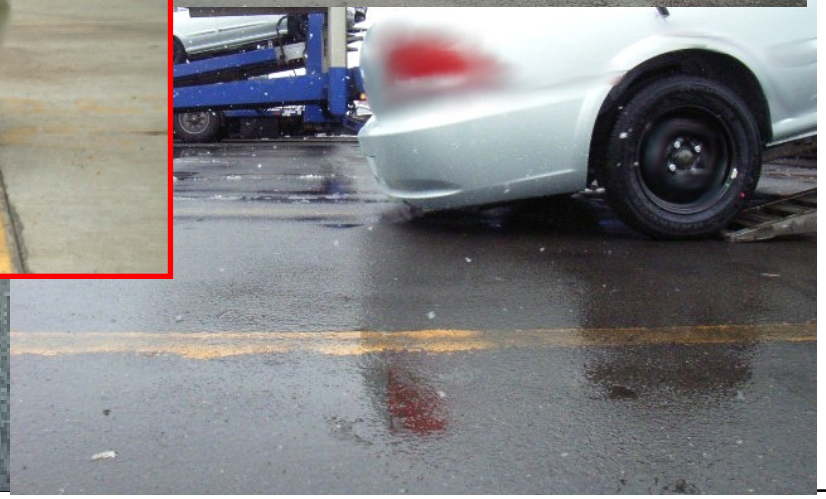


Rust spots on Body of vehicles

Scratches and Gouges on Lower Bumpers







Damages by Accidents

Stowage
on vessel

Traffic indication
in compounds

3. Understanding of the situation- Survey at Sites

Damages by Accidents

Driving Speed

Scratches on car body

Many scratches either front or back of the body

Many Chippings on car body

Many chippings on lower part of body and special area

Important Factors: 4C's

Damage Occurrence

Communication

Possible Cause

Statistics

Surveys

Possible Solution

Control

Care

Implementation of Counter Measures

Continuity

Important Factors - 4C's

Communication

Control of People's Task & Information

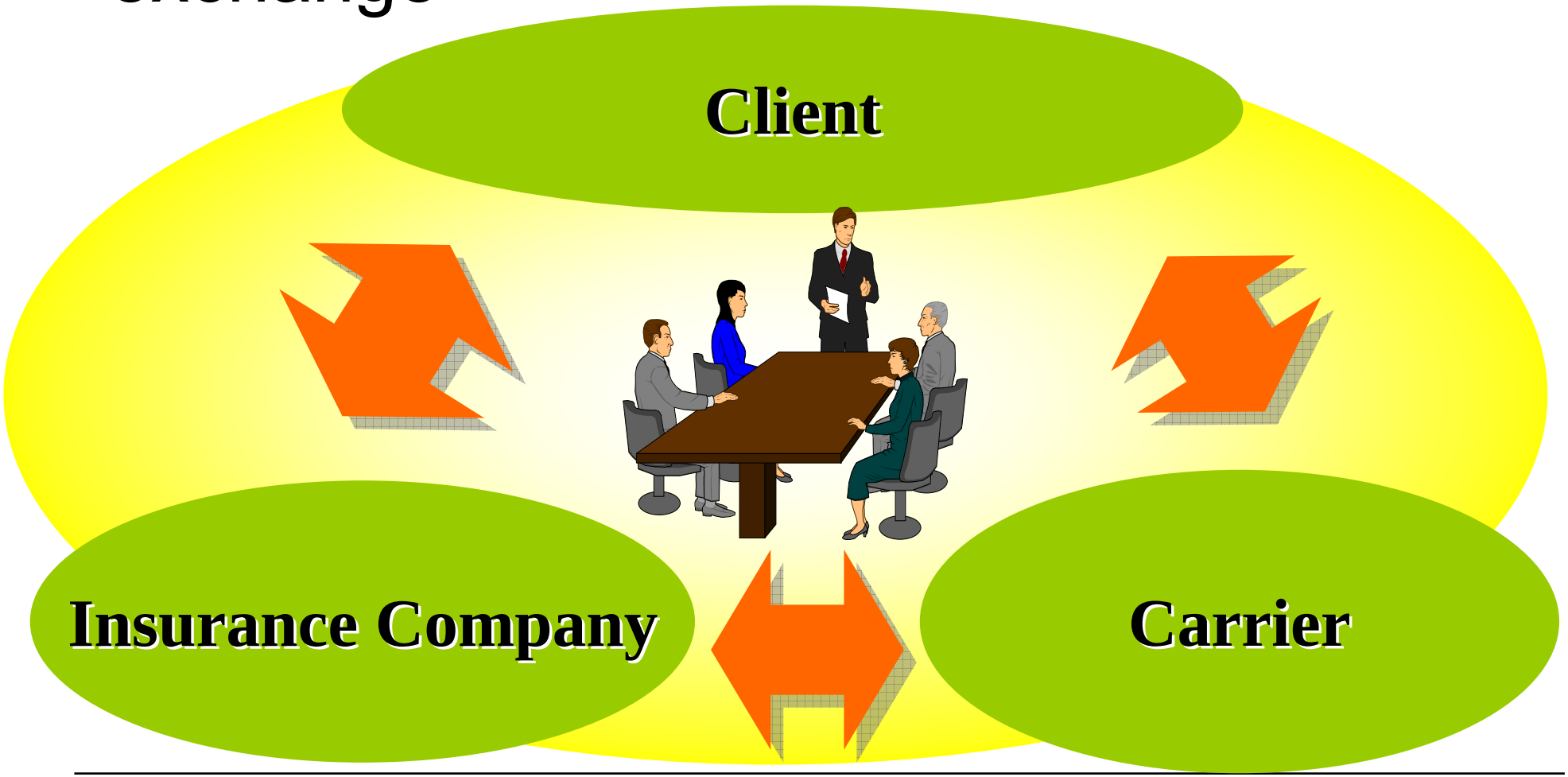
Care to Cargo

Continuity

= 4C's

4. Important Factors: 4C's

Communication: Information exchange

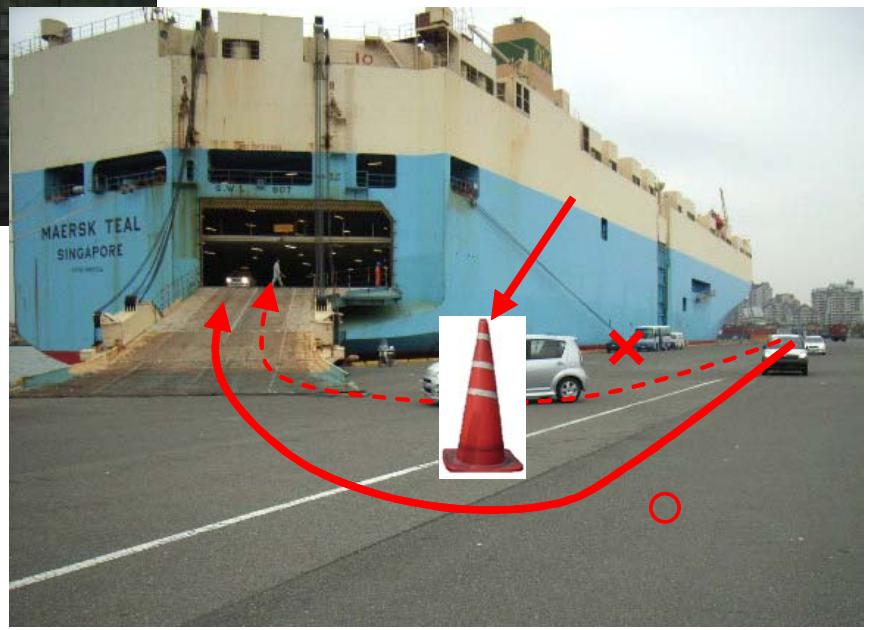


4. Important Factors: 4C's

Communication at sites

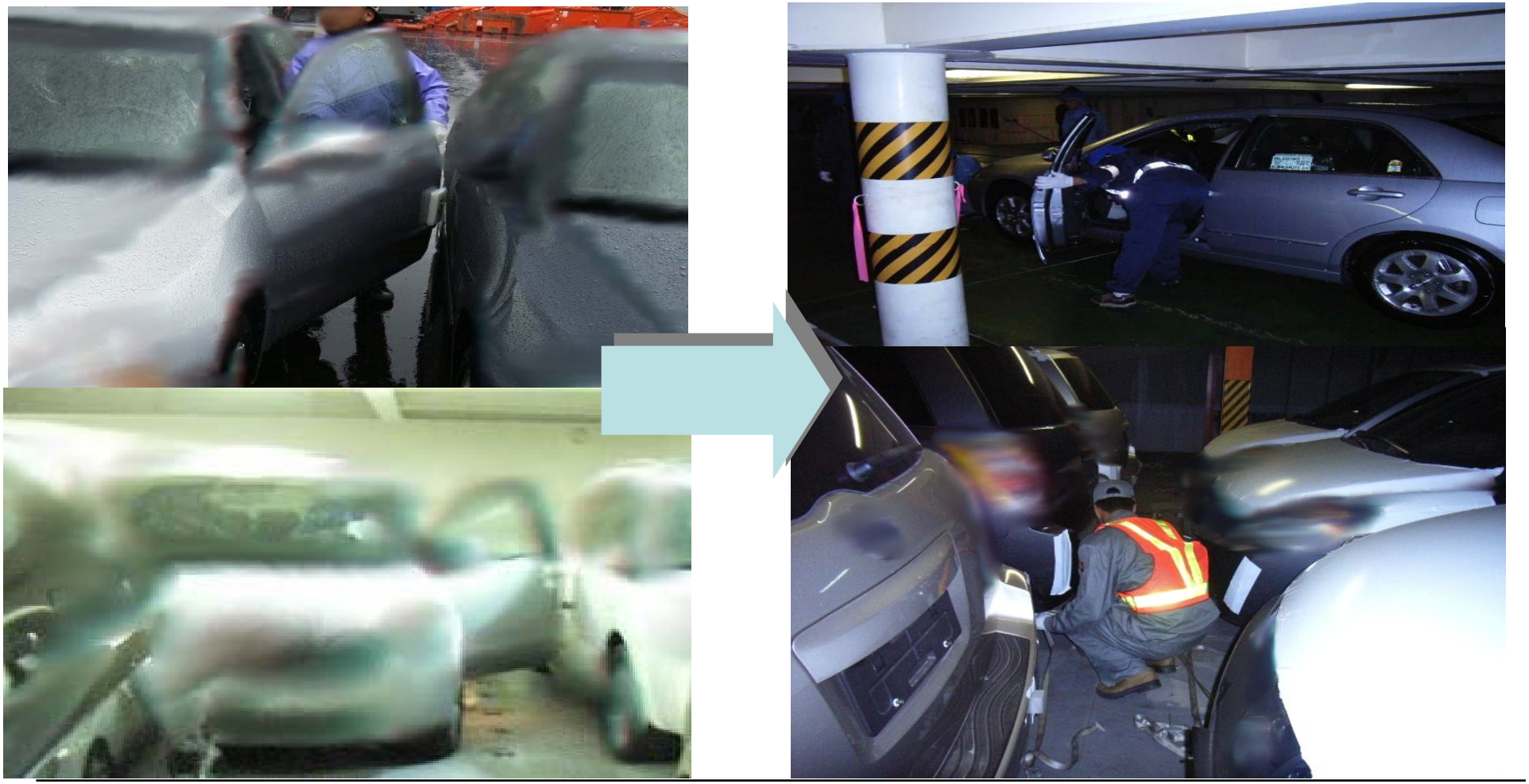
4. Important Factors: 4C's

Control of People's Tasks



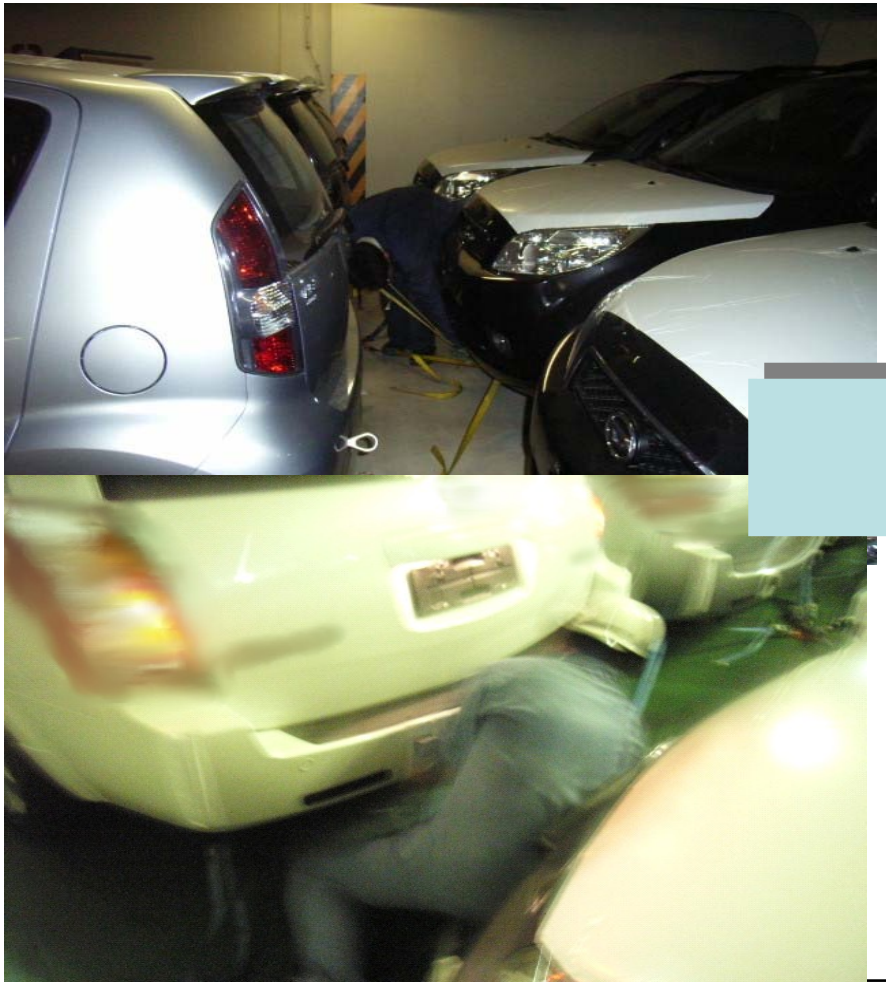
4. Important Factors: 4C's

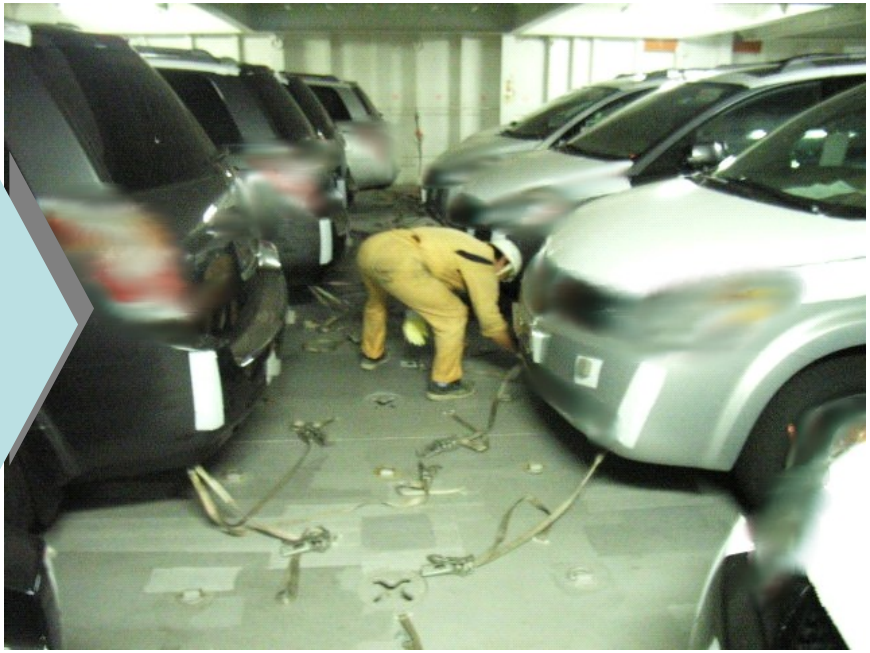
Control of People's Tasks



4. Important Factors: 4C's

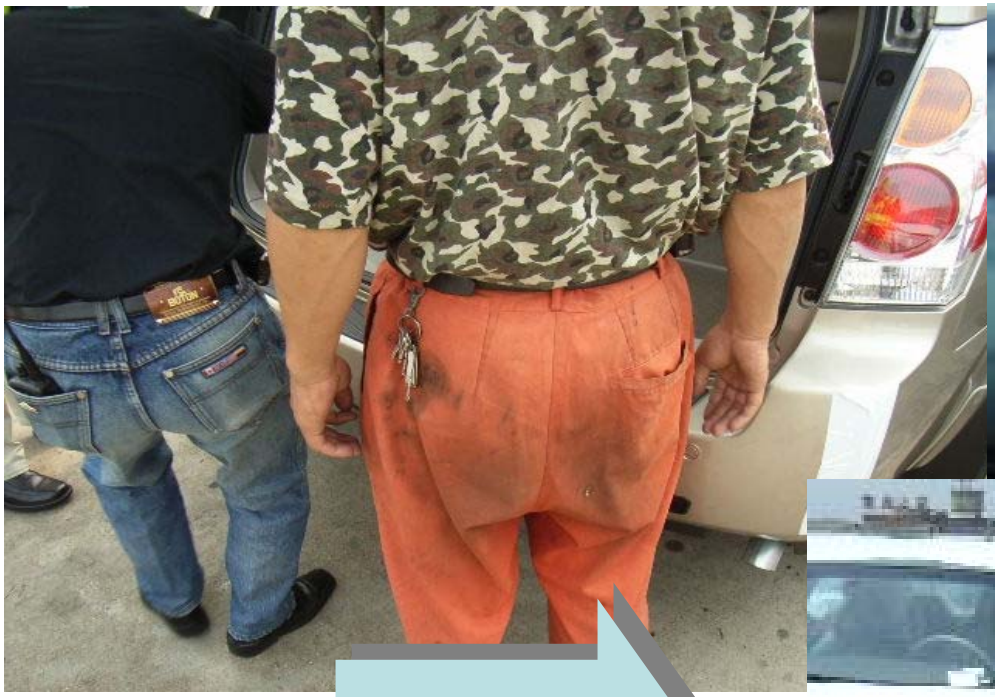
Control of People's Tasks





4. Important Factors: 4C's

Control of people's tasks



4. Important Factors: 4C's

Control of people's tasks- Driving Speed

4. Important Factors: 4C's

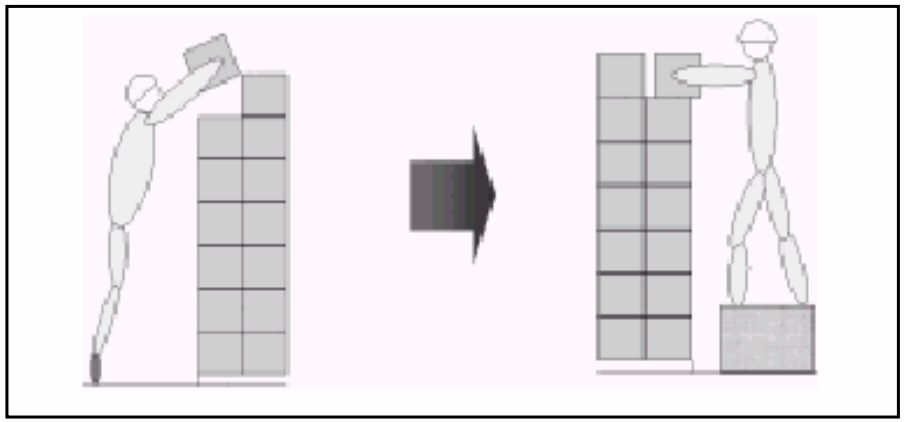
Control of people's tasks- Ergonomics

Data Analysis → Filed Survey → Proposal

Human do make errors and mistakes.

Ergonomics is the way to help prevent them.

(Example)



Man can handle the goods safely when the goods are under 74% height of his tall.

Use Foot Steps !!

4. Important Factors: 4C's

Care to Cargo: Protection

Careful Handling is not always sufficient.

Protection

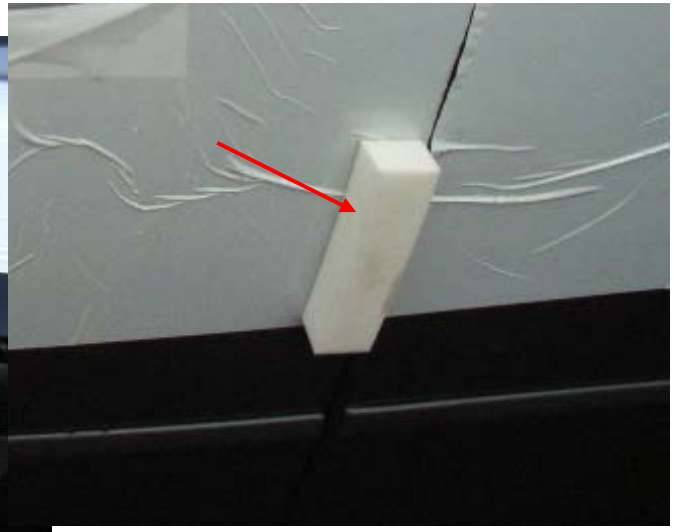
to the frequently contacted area

to the vulnerable area

is effective when you cannot pinpoint the actual cause of damages.

Reduction of vulnerability of the cargo itself.

Care to Cargo: Protection



4. Important Factors: 4C's

Care to Cargo: Protection

4. Important Factors: 4C's

Care to Cargo: Protection

4. Important Factors: 4C's

Continuity in counter measures

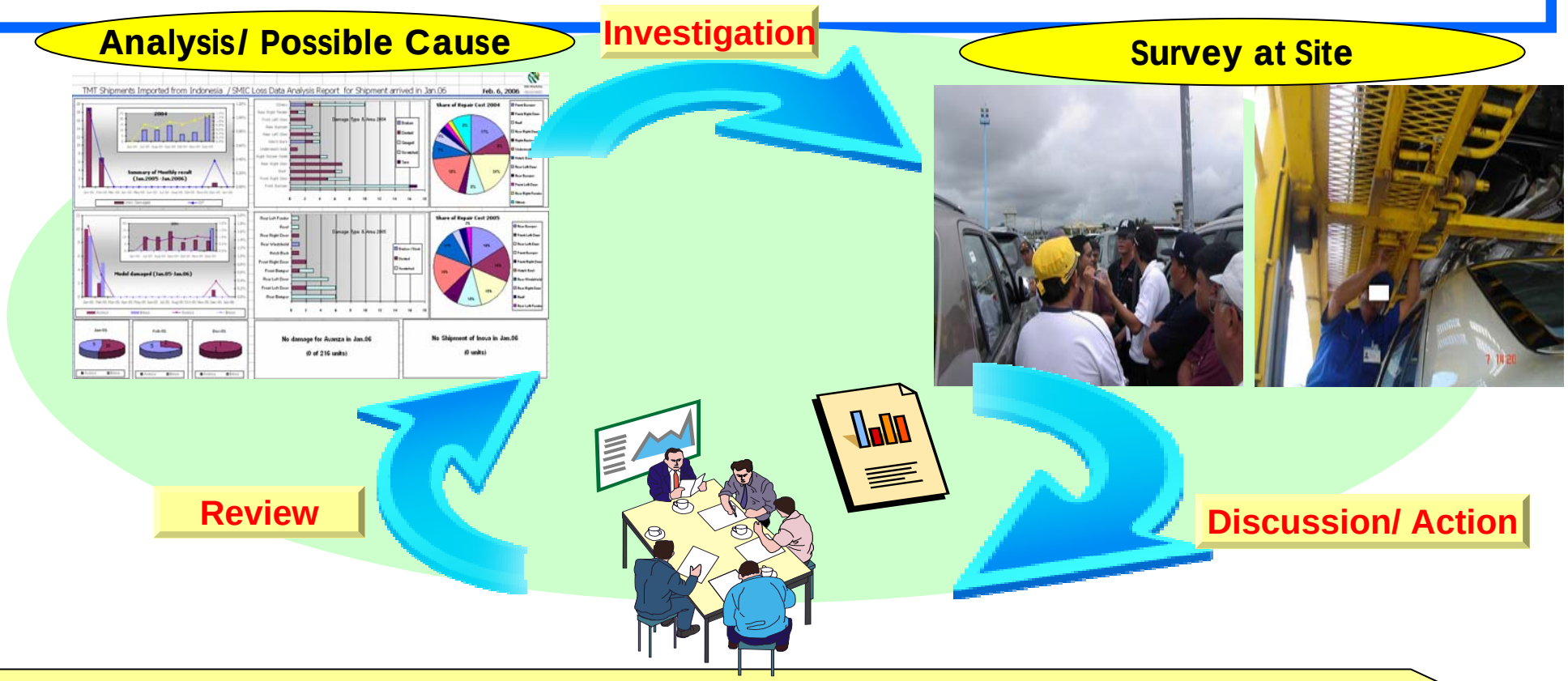
Meetings and Feedbacks

Common understanding of the situation and counter measures

<u>Make it a regular work</u>

4. Important Factors: 4C's

Continuity: Loss Prevention Cycle



Damage Information + Survey at Site → Action Plan → Action → Review

・ ・ ・ Continue

4. Important Factors: 4C's

Continuity in Counter Measures

Damage Occurrence

Possible Cause

Possible Solution

Implementation of Counter Measures

4. Important Factors: 4C's

Continuity in Counter Measures

4. Important Factors: 4C's

Continuity in Counter Measures

Continuity in Counter Measures

Good maintenance with clear indications

4. Important Factors: 4C's

Loss Prevention Cycle

Damage Occurrence

Communication

Possible Cause

Statistics

Surveys

Possible Solution

Control

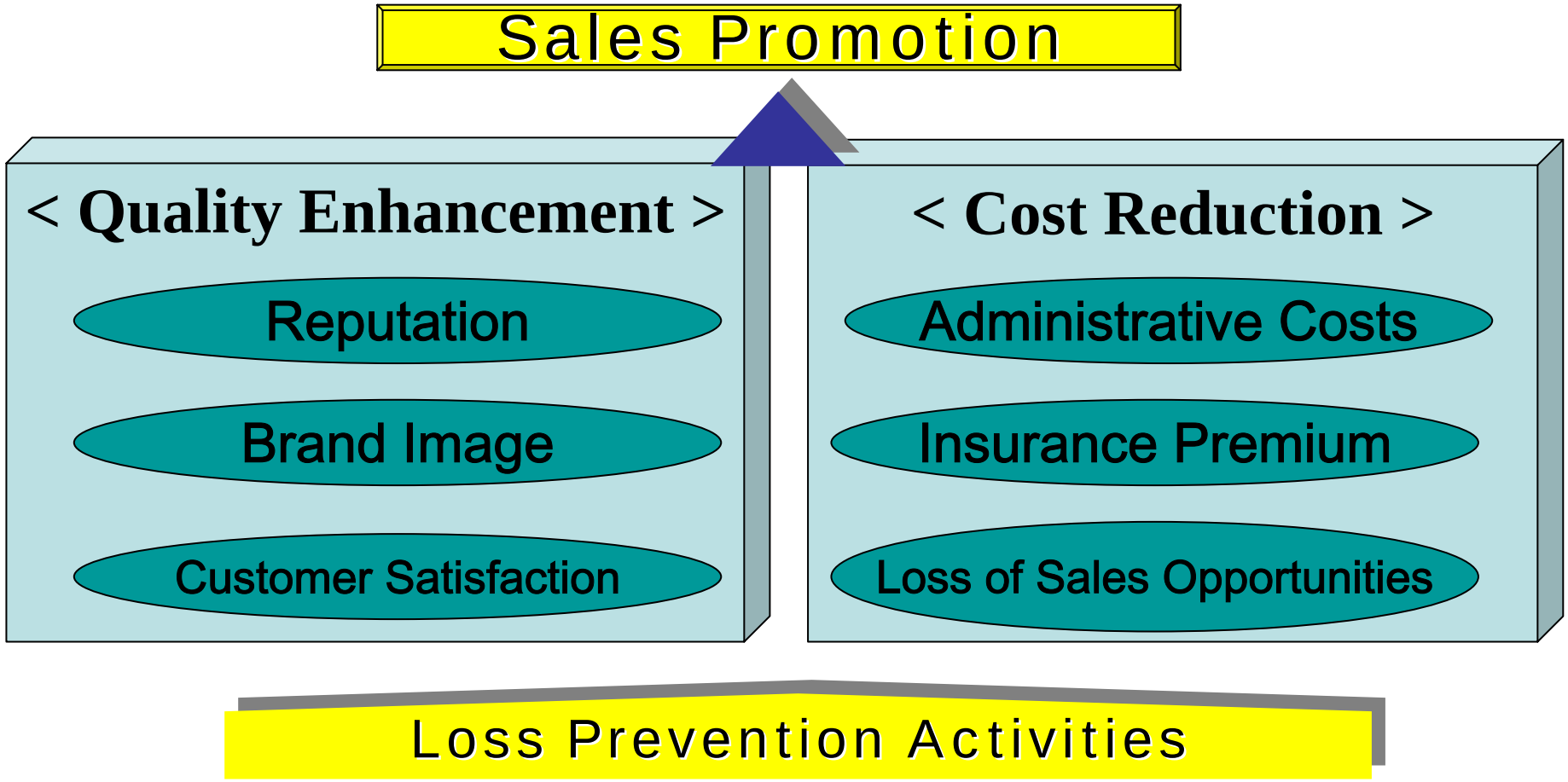
Care

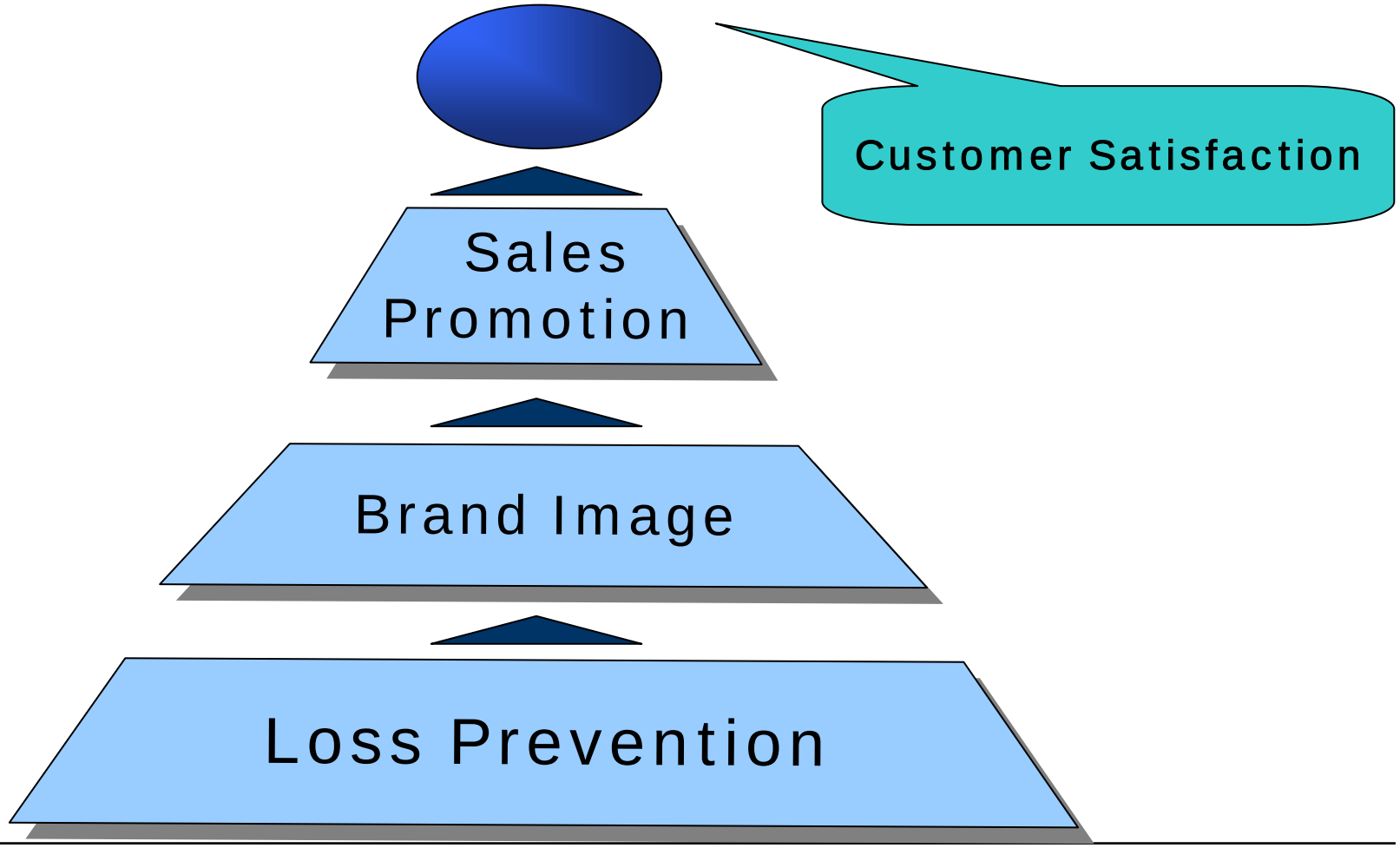
Implementation of Counter Measures

Continuity

IV. Customer Satisfaction

Directly connected to Satisfaction



IV. Customer Satisfaction

Directly connected to Satisfaction