

# Reducing Accidents and Insurance Claims Within Ports & Terminals 2017

TT CLUB  
IS MANAGED  
BY **THOMAS  
MILLER**

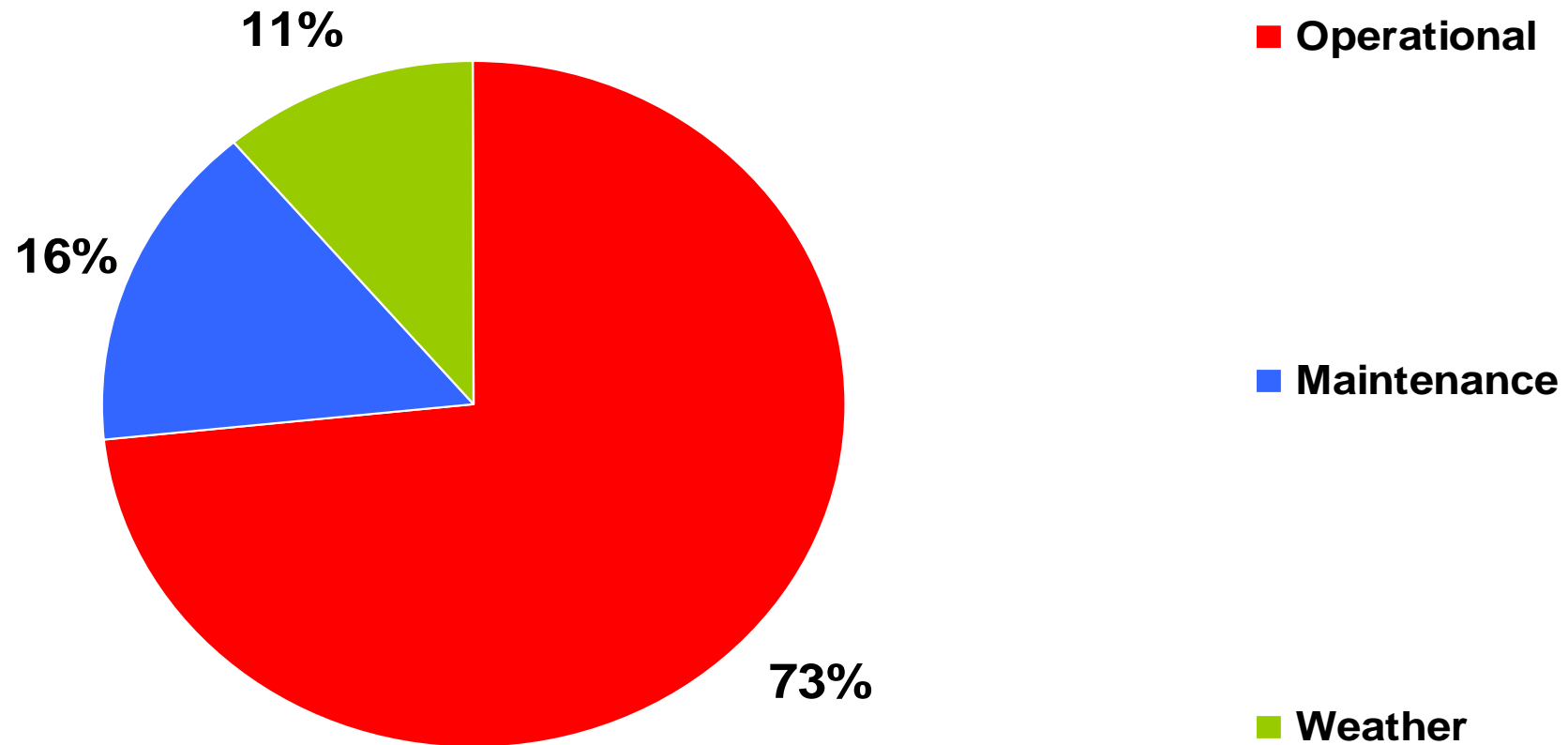
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Regional Director Asia Pacific – TT Club



## Analysis of the main causes of claims:

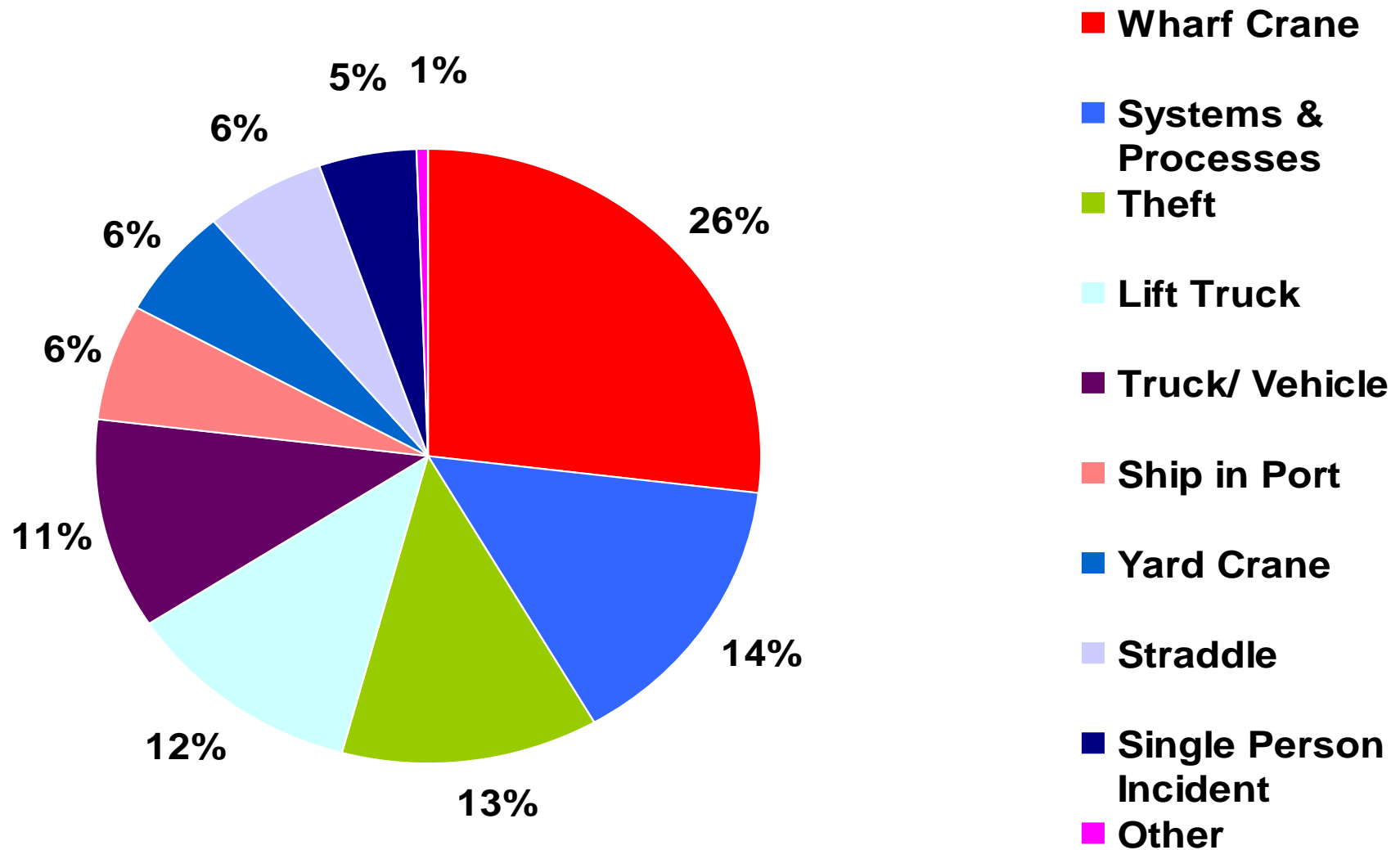
- Includes last 5 years data
- All claims over US\$10,000
- Over 7,000 claims
- Includes all claim types:
  - Property
  - Liability
  - Bodily injury

## Main cost cause categories





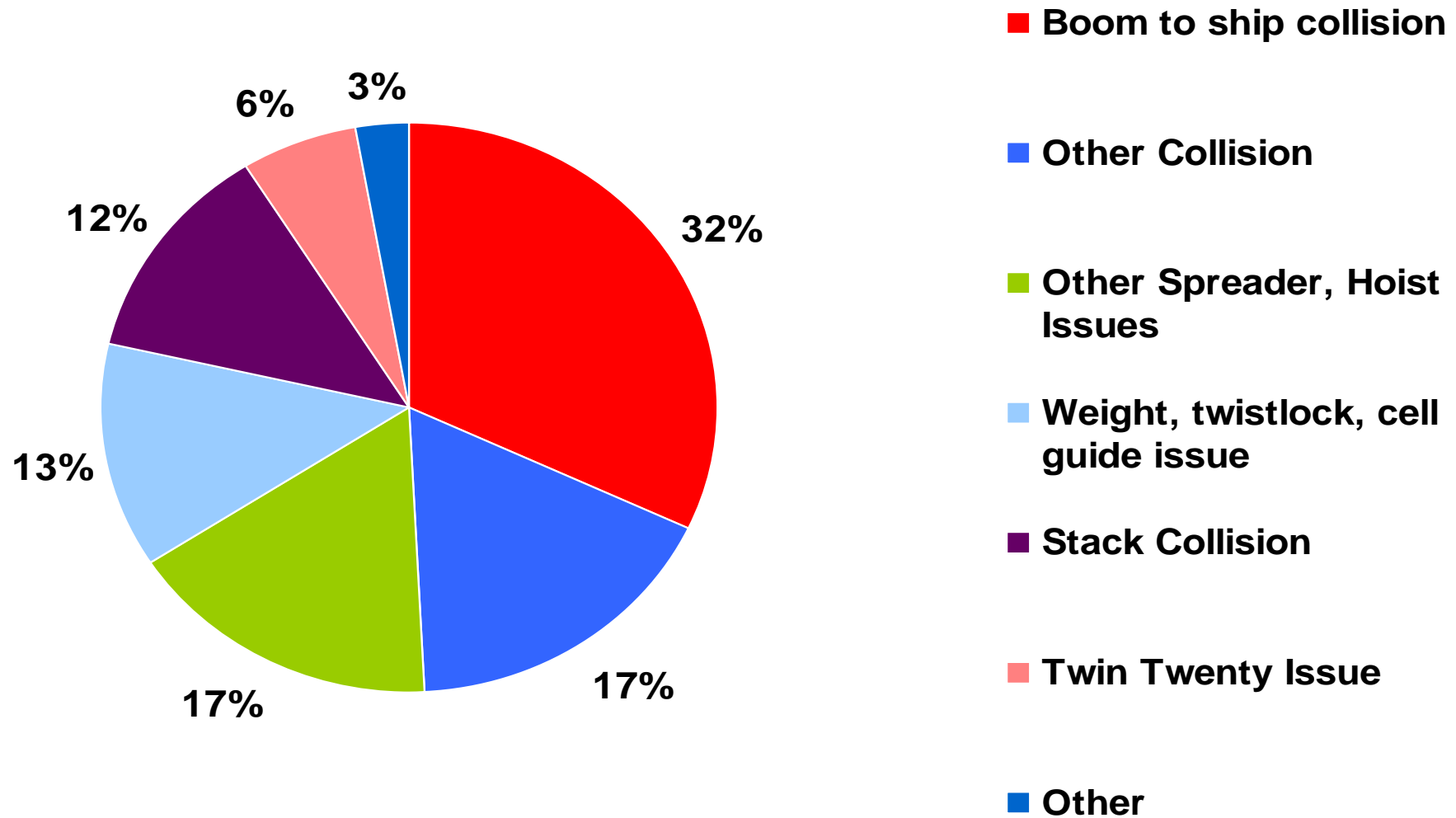
# Operational issues costs



# Bigger ships and bigger and more cranes



## Quay crane issues costs







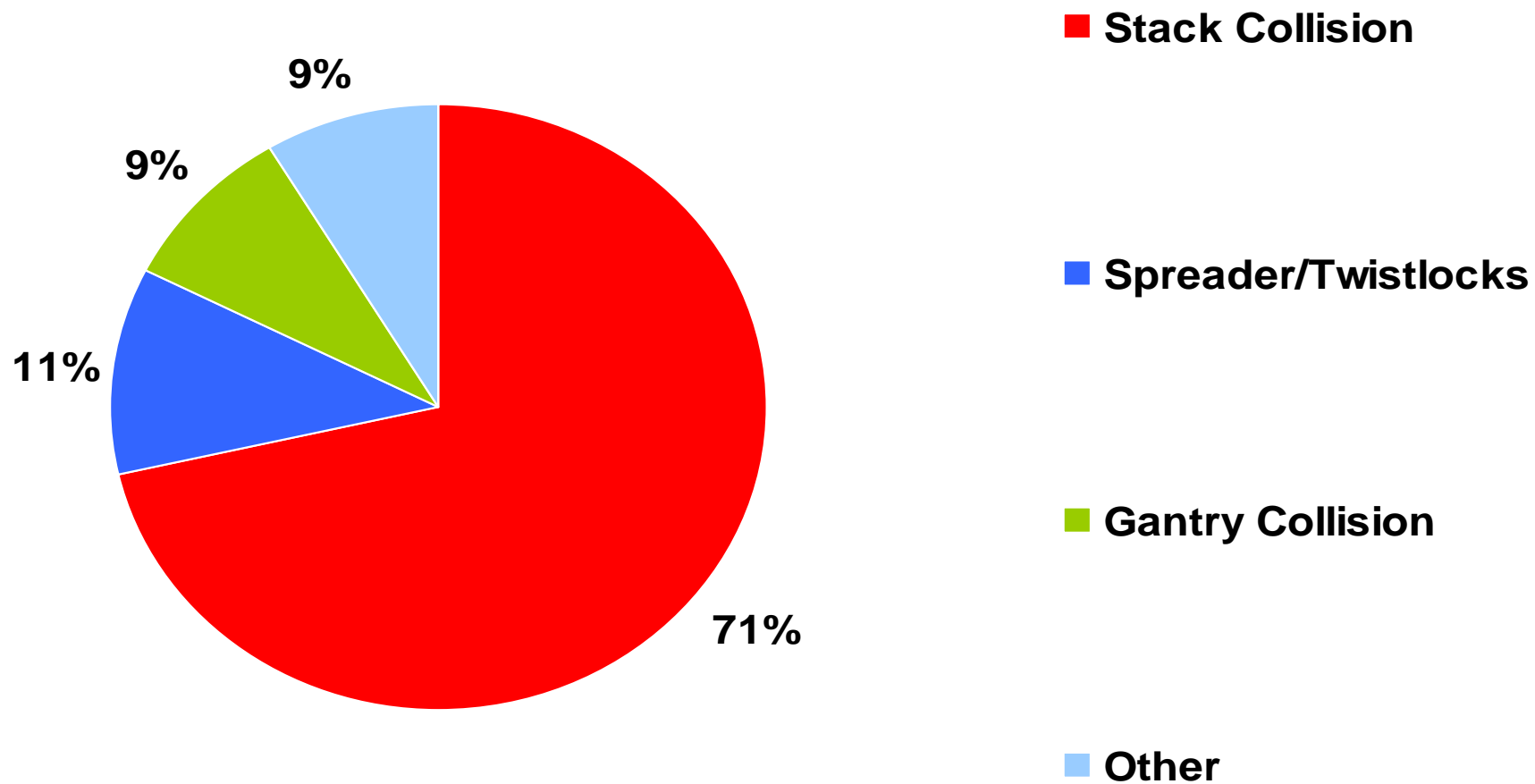
**32% of quay crane claims costs**

**Biggest single cause of quay crane claims cost**

Totally preventable with quay crane boom anti-collision sensors

Laser sensors – [www.sick.com](http://www.sick.com)

## Yard crane issues costs







**12% of quay crane claims costs**

**71% of yard crane claims costs**

## **Loss prevention:**

- Reduced with crane PLC logic to limit trolley & gantry travel unless at full hoist – cheap option but will slow operations.
- Totally preventable with a stack profiling system using sensors & PLC logic









### Spreader, twistlock, container weight & eccentricity issues

**13% of quay crane claim costs**

**11% of yard crane claims costs**

Many preventable with twistlock load sensing technology

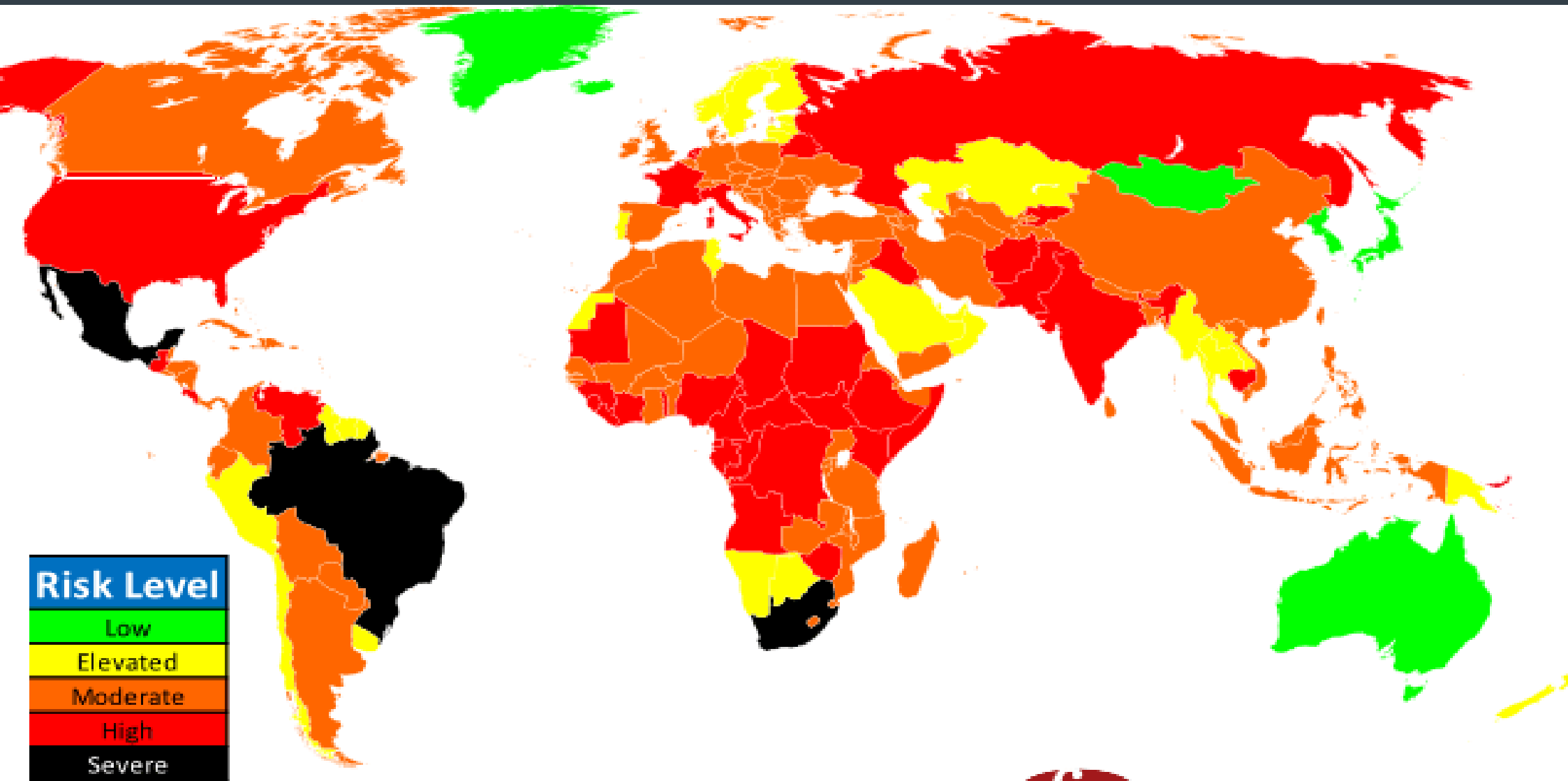
Measures weight & eccentricity of each container

Can be installed on any twistlock, on any spreader and on any equipment

Suppliers:

- Lasstec – [www.lasstec.com](http://www.lasstec.com)
- Bromma – [www.bromma.com](http://www.bromma.com)

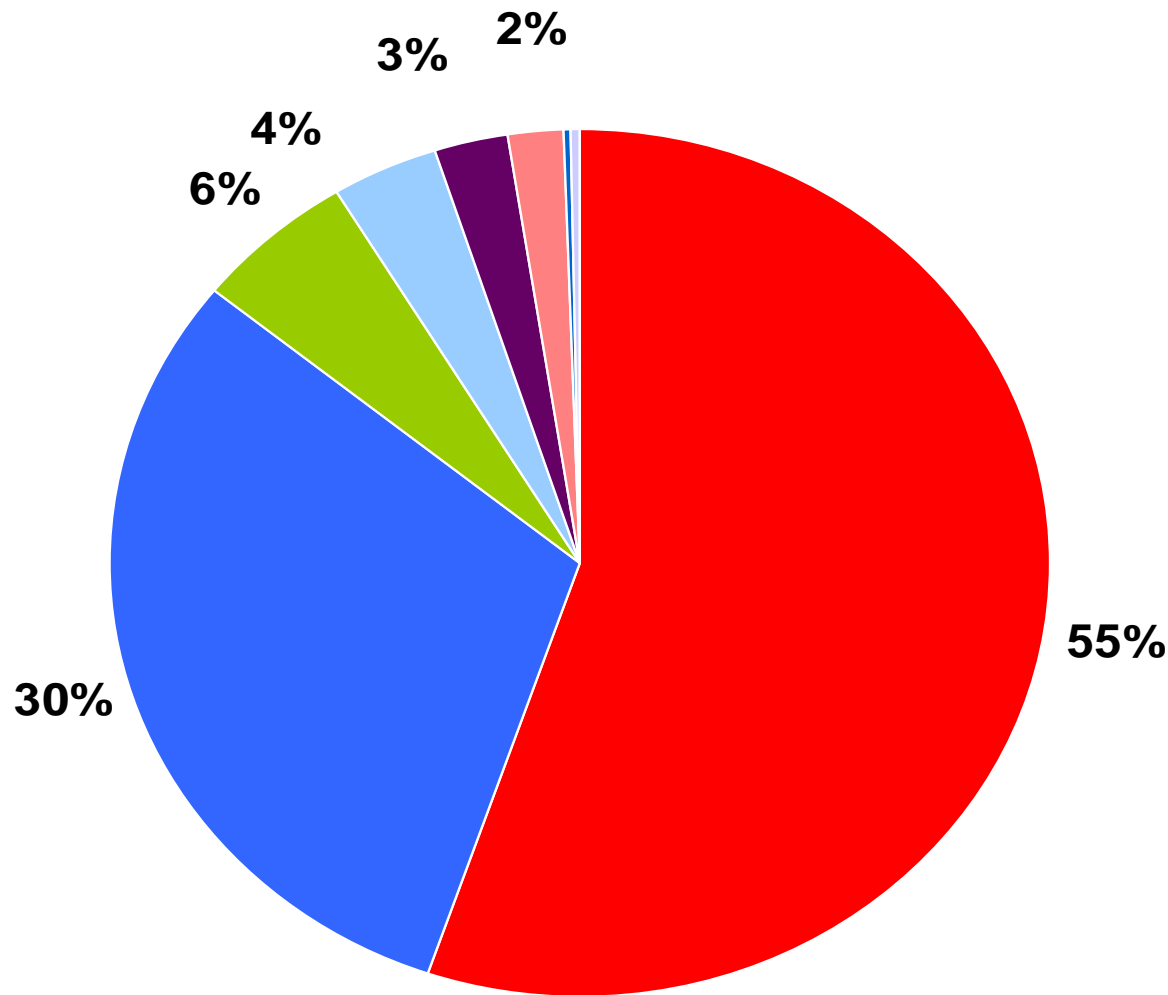
# Cargo theft - level of risk by country



Risk Level
Low
Elevated
Moderate
High
Severe



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- Theft from member's premises
- Theft in transit - contractor
- False paperwork
- Theft from contractor's premises
- Theft in transit - member
- Stocktaking loss
- Seal intact
- Other or unknown
- Containers non returned

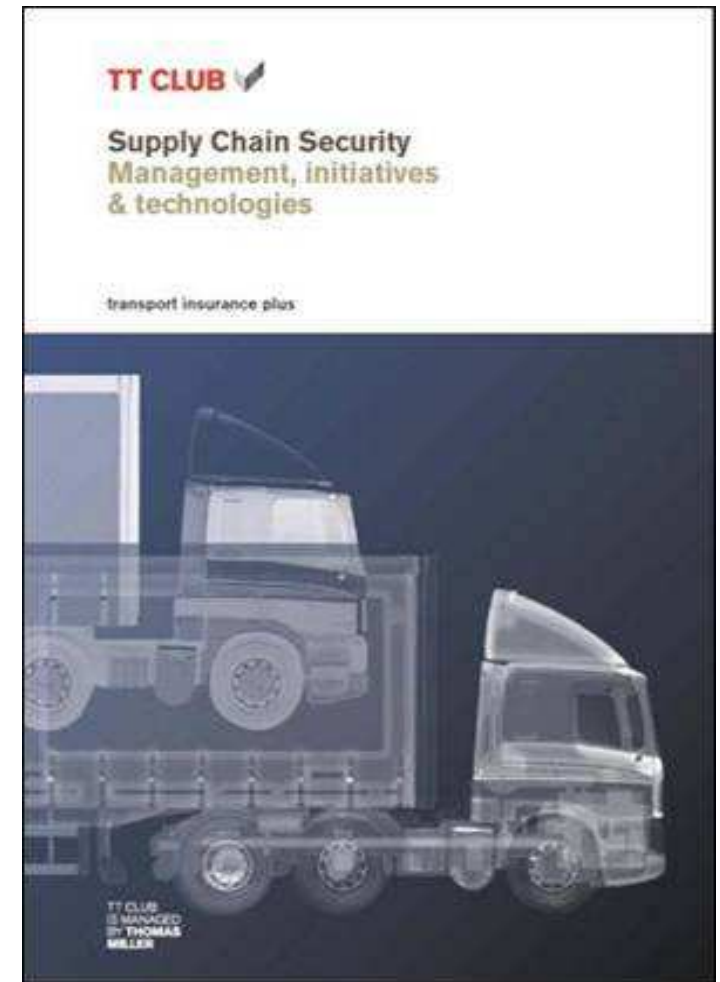
## 59% of theft costs occur from premises

### Prevention:

- physical security – good fences
- security guards
- CCTV monitoring
- automated gate control system
- checks and double checks on paperwork

### Most thefts are inside jobs

Refer to TT Club Supply Chain Security booklet  
Available at [www.ttclub.com](http://www.ttclub.com)



**30% of theft costs occur in transit using contractors**

**4% due to theft from contractor's premises**

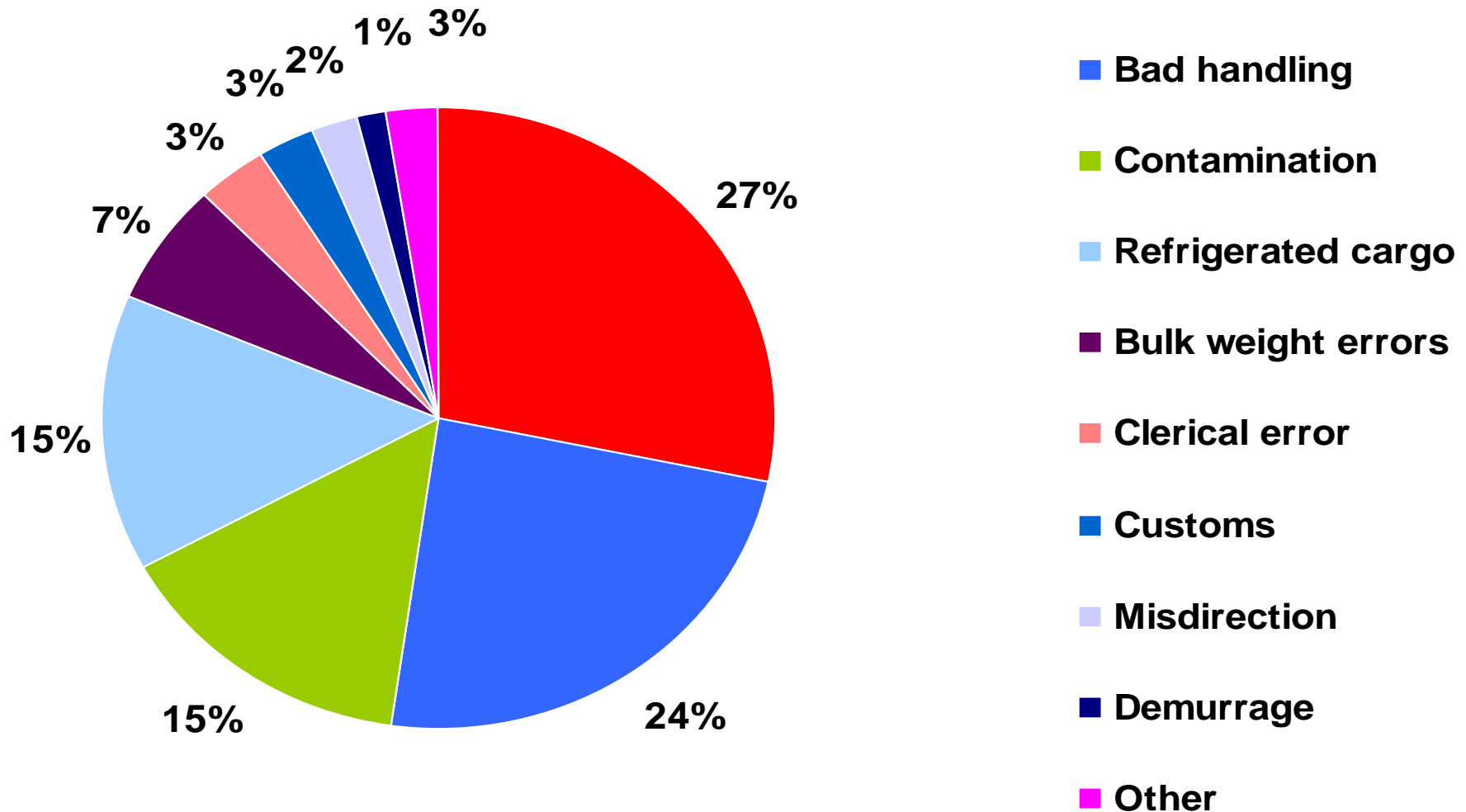
## **Prevention:**

- Due diligence on contractors
- Pre-employment checks / references
- Number of years established
- Company registration number
- Country entity is registered
- Direct contact details
- Any affiliations with Industry Trade Bodies
- Contractors' Standard Terms and Conditions

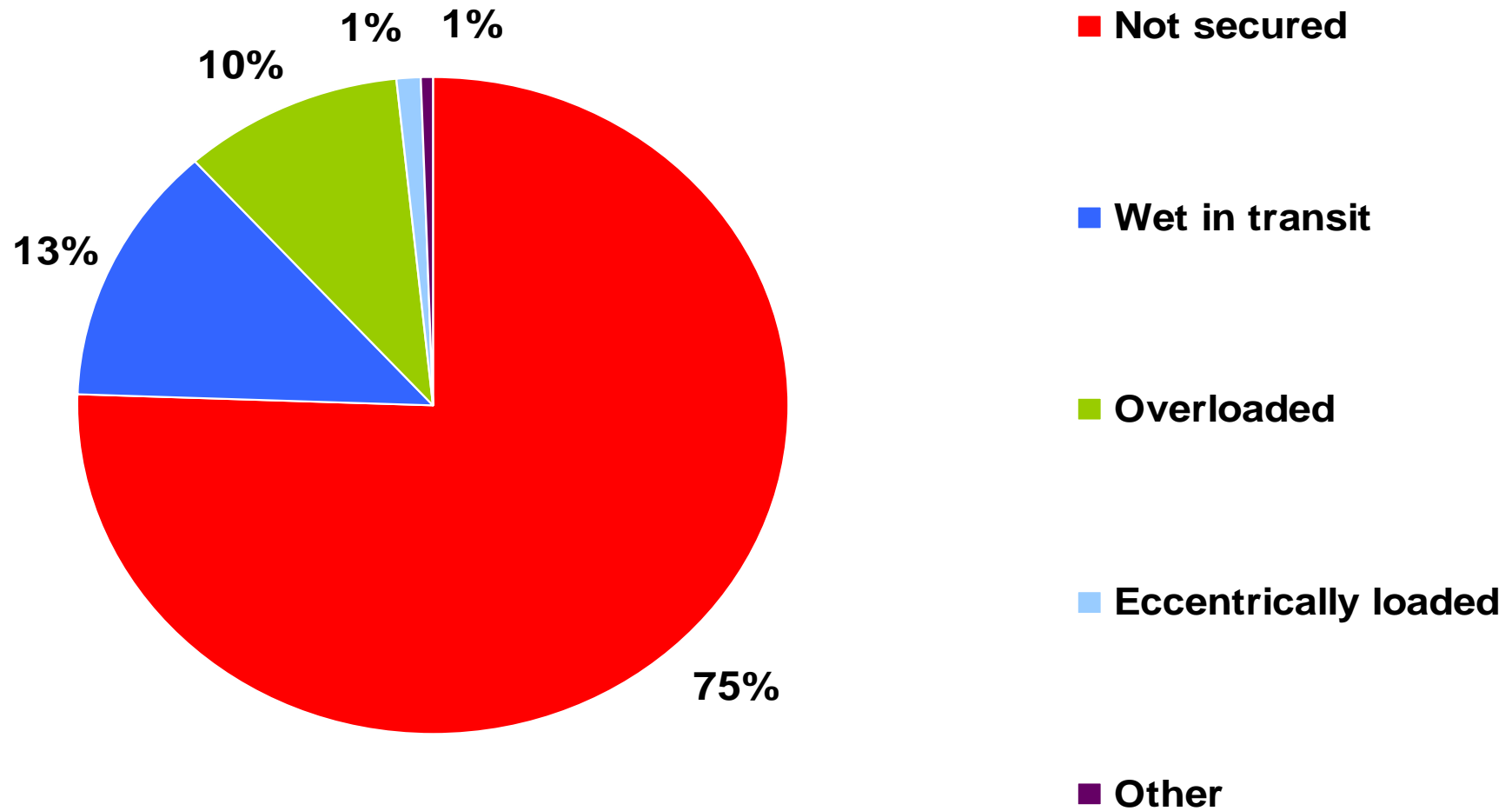
## 33% of theft costs occur in transit

### Prevention:

- Send trucks in convoy
- Only stop at approved truck stops
- Do not leave truck unattended
- Alter routes on regular deliveries
- Only use approved transport contractors
- Use GPS tracking devices
- Share bad experiences
- Use available tracking and locking technologies



# Bad stowage/packing issues costs













## 27% of systems & processing issue costs

### Prevention: 'Pack it right'

- Declare correct weight
- Pack container evenly & securely
- Do not eccentrically pack containers
- Declare dangerous cargo
- Protect against wet weather
- Train and monitor staff
- Refer to new IMO/ILO Code of Practice for Packing of Cargo Transport Units
- E-learning system developed by Exis Technologies provides this training
- TT members get 15% discount on Exis training package
- Contact: [www.ctupack.com](http://www.ctupack.com)





## 24% of systems & processing issue costs

- 32% alleged damage – can't be disproved

### Prevention for alleged damage:

- Take photos of arrival & departure condition
- Use cameras on in/out gates.

### Prevention for damage:

- Equipment driver training (simulators)
- Use low loader when needed
- Store steel coils undercover
- Ensure slings in good condition
- Synthetic slings – no sharp corners

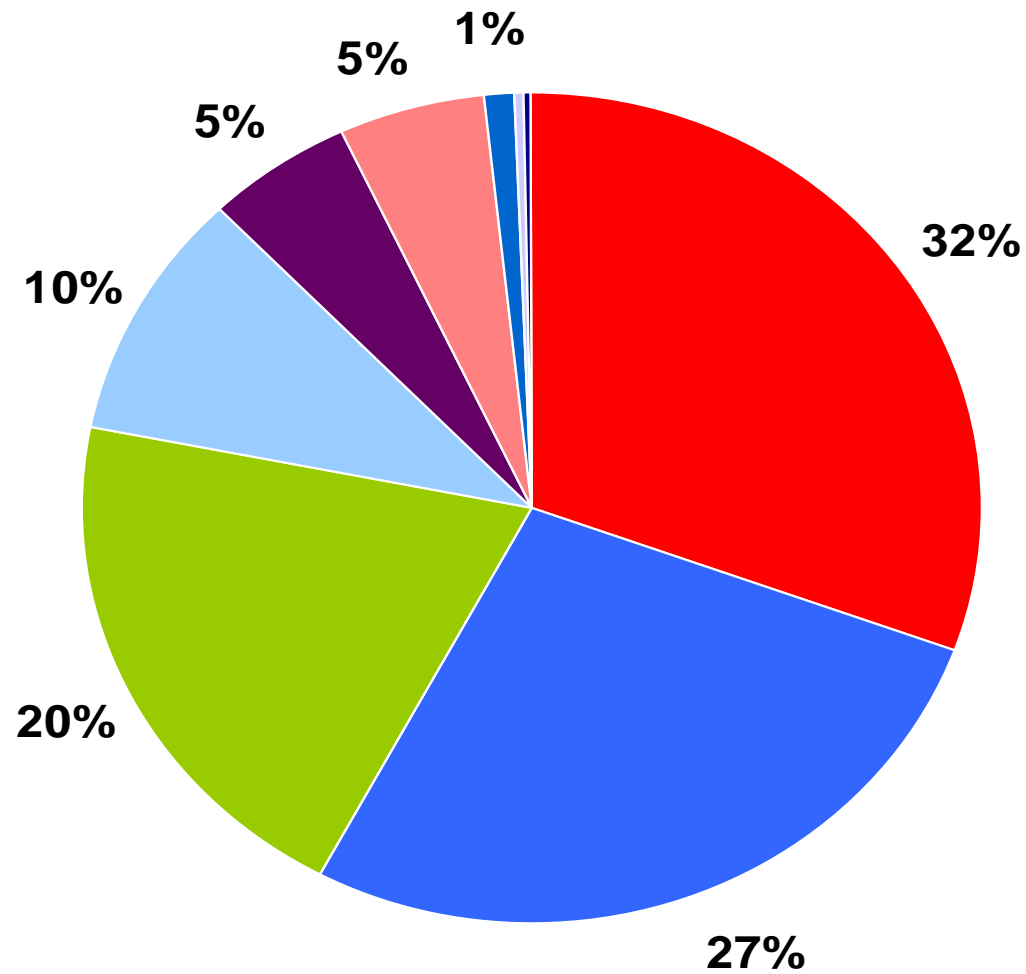




## 15% of systems & processing issue costs

### Prevention:

- Store at correct temperature
- Pack it right
- Do not forget to plug in reefer
- Set correct temperature on reefer
- Fahrenheit or Celsius?
- Double check data
- Use EDI
- Maintain an audit trail
- Monitor – remote reefer monitoring
- Verify condition of reefer unit prior to loading
- Ensure sufficient power for peak periods



- Lift Truck
- Truck/ Vehicle
- Single Person Incident
- Wharf Crane
- Yard Crane
- Straddle
- Systems & Processes
- Other Operational Issues
- Ship in Port

# Lift truck / light pole collision





**79% of injury costs caused by mobile equipment and vehicles**

**Prevention:**

▪ **Traffic management procedures:**

- One-way traffic flows
- Limiting vehicles & pedestrians in yard
- Site induction procedures
- Safe area for truckers to secure/unsecure loads
- Speed limits set and enforced

▪ **Technologies:**

- RFID system on all pedestrians and mobile equipment
- Mobile equipment anti-collision sensors
- Rear view cameras on lift trucks
- Automation of main gate and yard cranes
- Automated twistlock removal & placement system under QC
- Cameras to identify container numbers on QC's

## 20% of injury costs caused by single person accidents

### Prevention:

- Safety awareness
- Tool box talks
- Safety lock out systems
- Safety walks/audits with workers
- Good housekeeping

## Training:

- Continuous safety awareness
- Enhanced focus on driver training (simulators)

## Procedures:

- Preventive not breakdown maintenance
- Better crane securing procedures & brake maintenance
- Structural inspections
- Ship movement & berthing procedures
- Security – theft
- Systems & processes – pack it right
- Traffic management

## Re-design/Technology:

- Wharf crane boom anti-collision sensors
- Wharf & yard crane stack profiling
- Mobile equipment travel anti-collision
- Fire suppression
- Container weight & eccentricity measurement.



**Thank you**  
**Any questions?**

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