

Reducing Accidents and Insurance Claims for Ports & Terminals

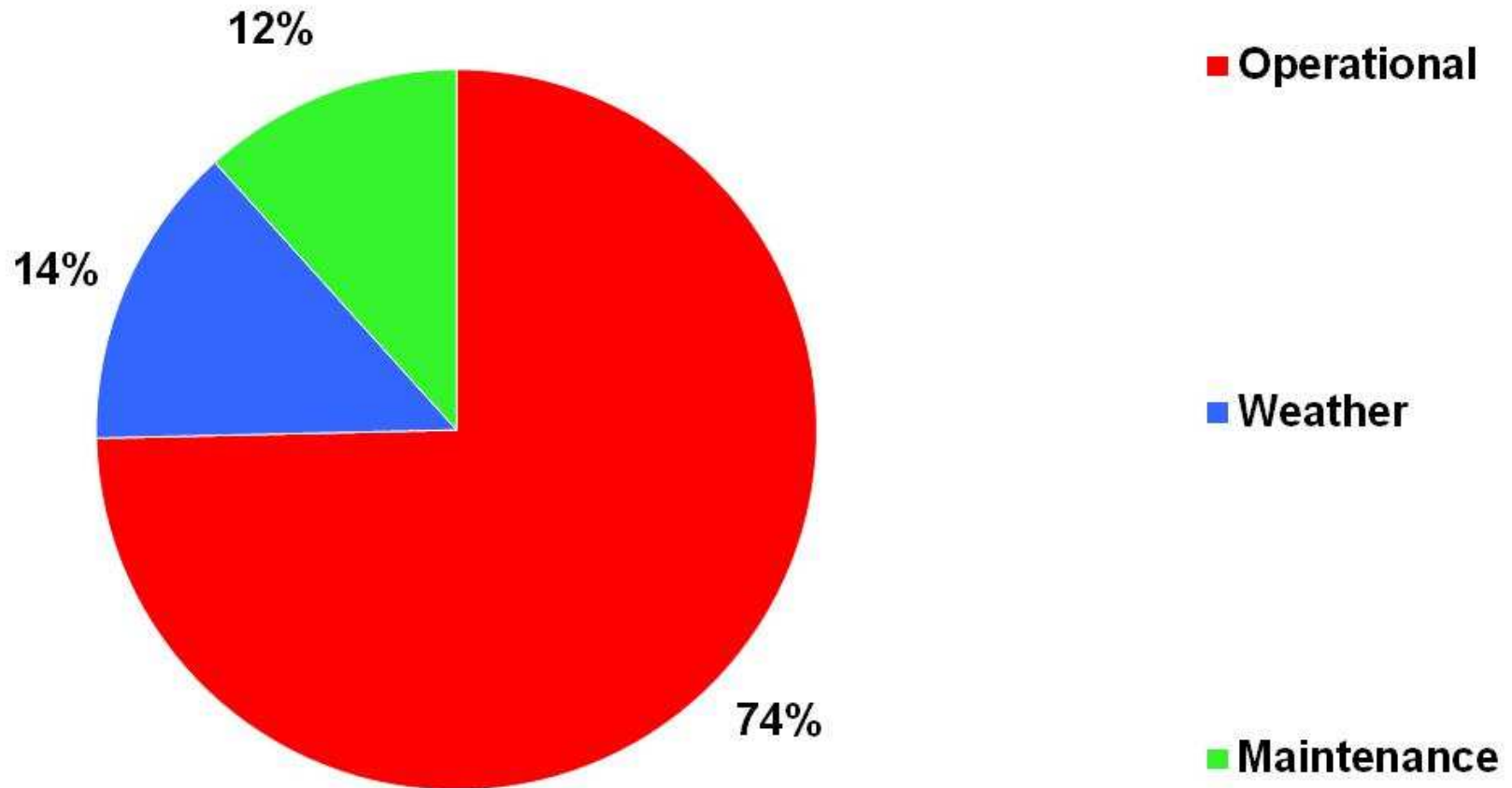
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Analysis of the main causes of claims:

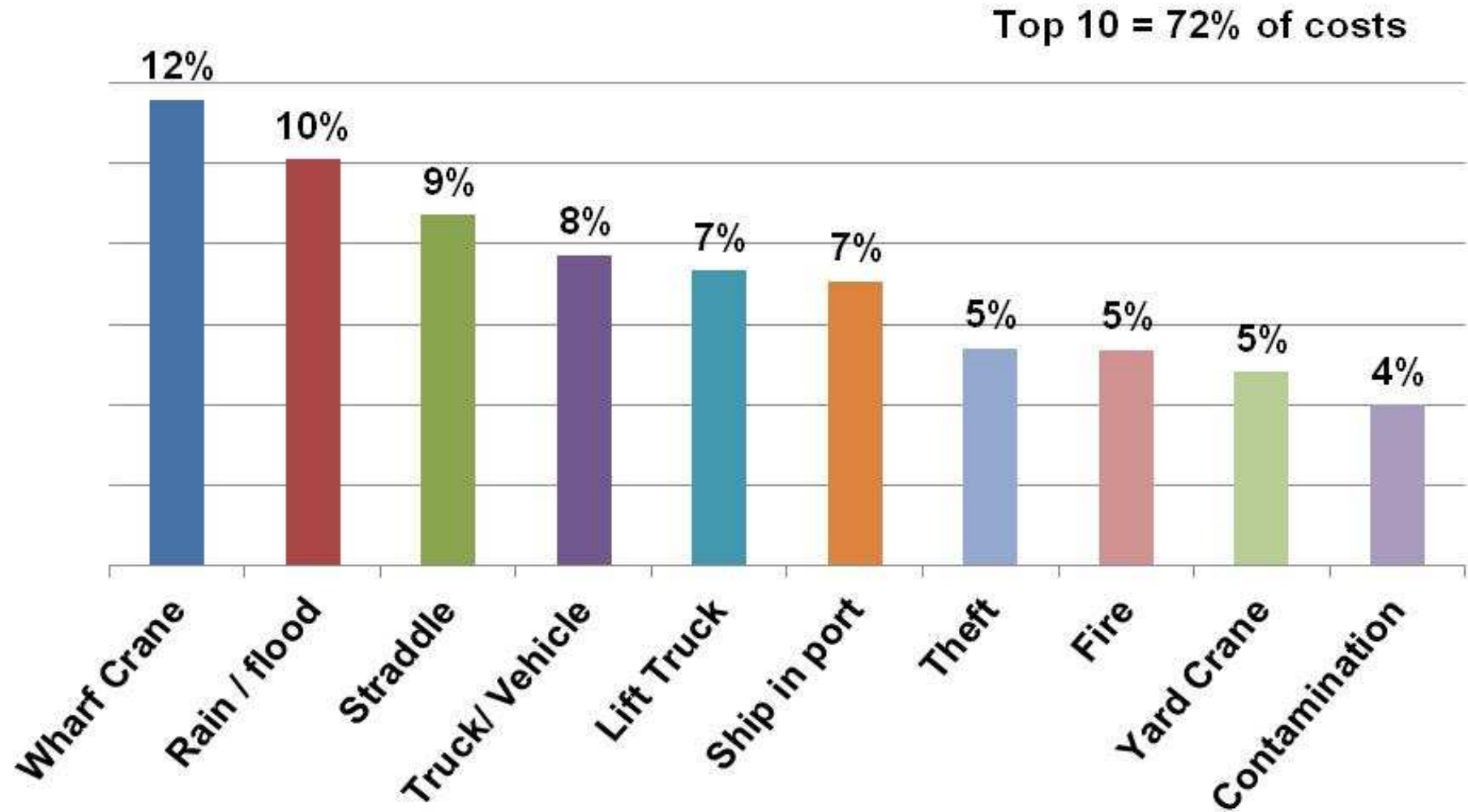
- Includes last 5 years data
- 2013 – 2017
- All claims over US\$10,000
- 2,000 claims
- Includes all claim types:
 - Property
 - Liability
 - Bodily injury

Port & Terminal members

Cost of main claims cause categories

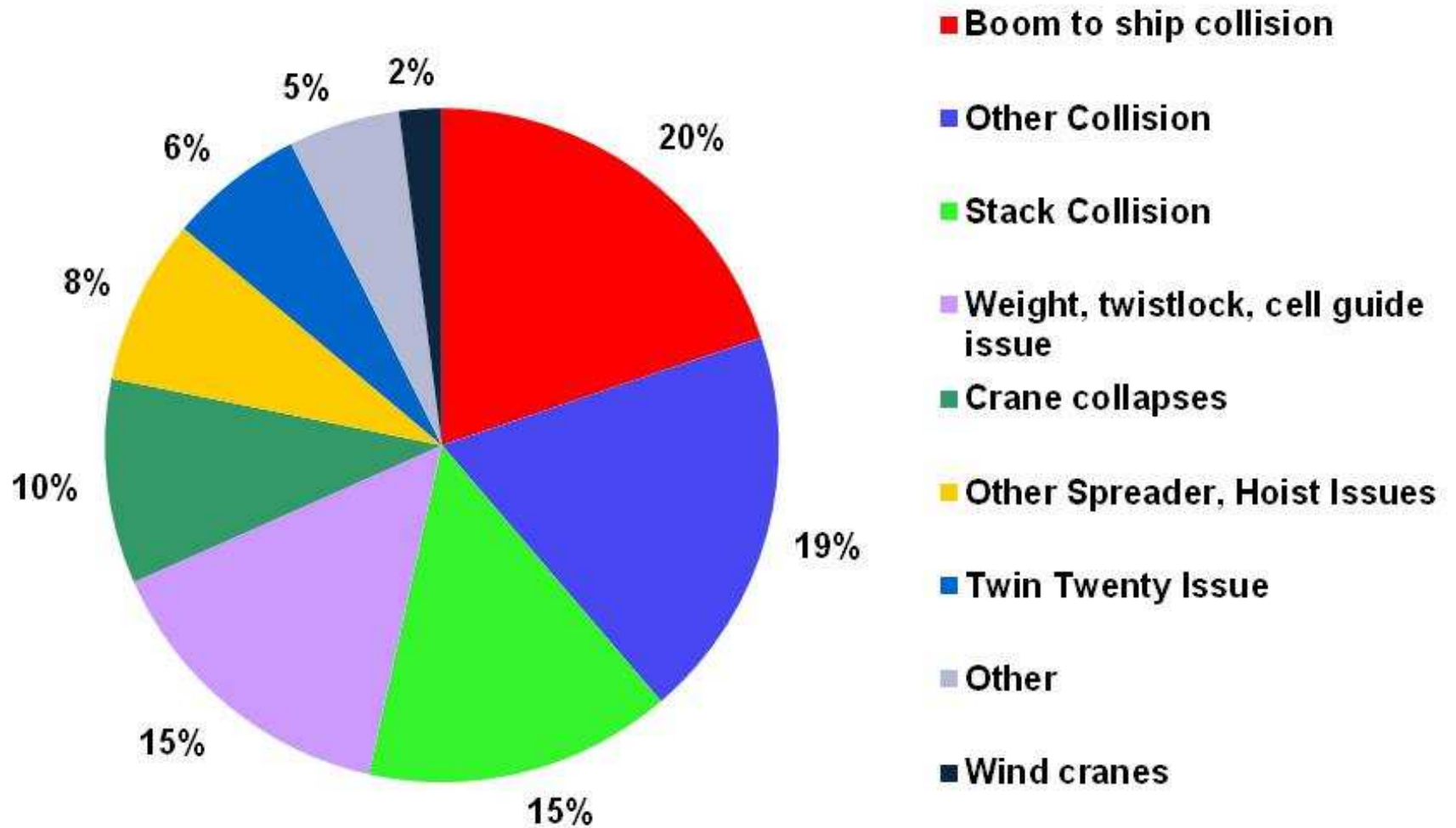






Bigger ships and bigger and more cranes







20% of quay crane claims costs

Biggest single cause of quay crane claims cost

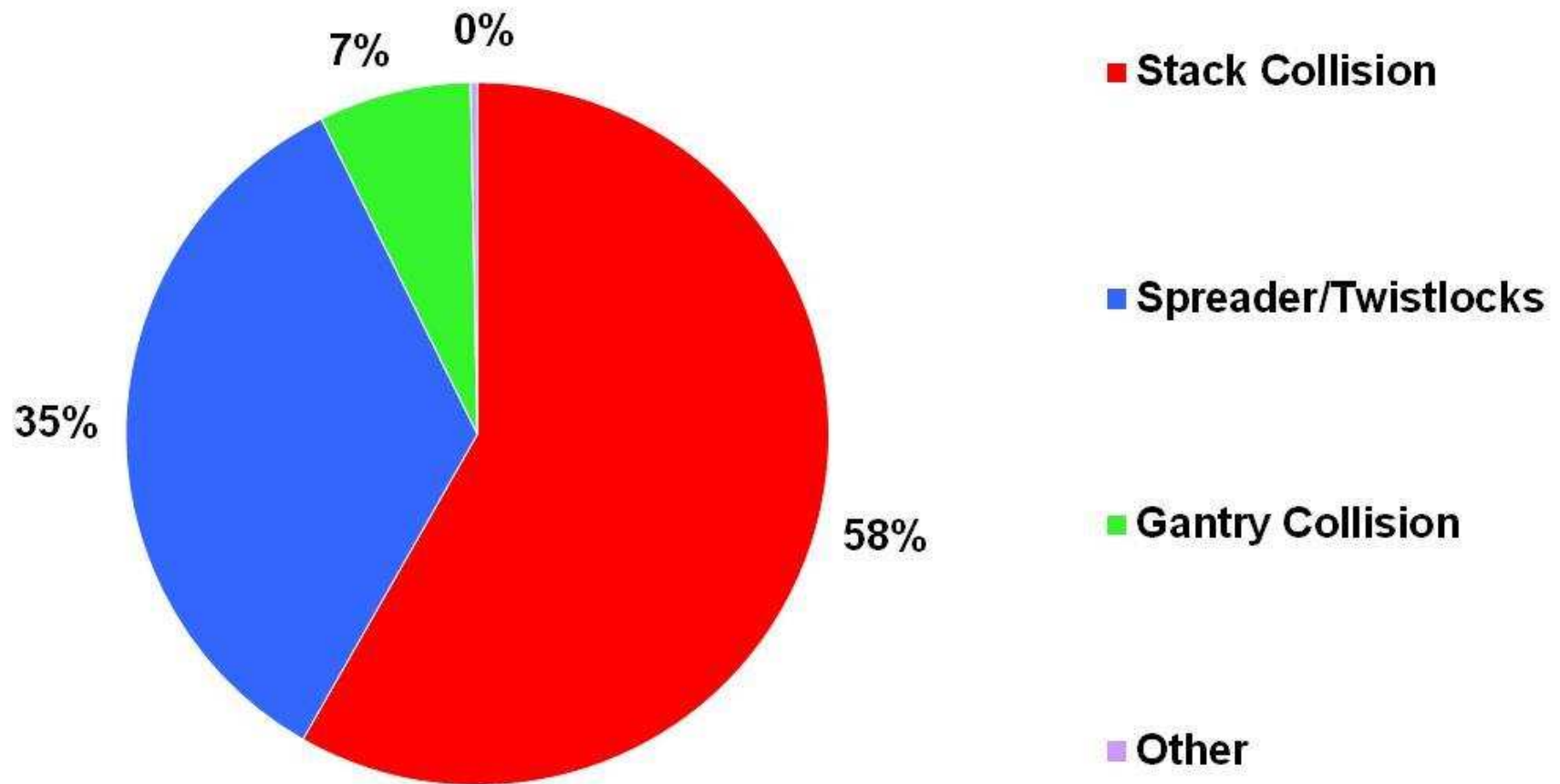
Prevention:

Totally preventable with quay crane boom anti-collision sensors

Laser sensors – www.sick.com

Note:

**Trip wire systems provide
collision detection
not collision protection.**







15% of quay crane claims costs

58% of yard crane claims costs

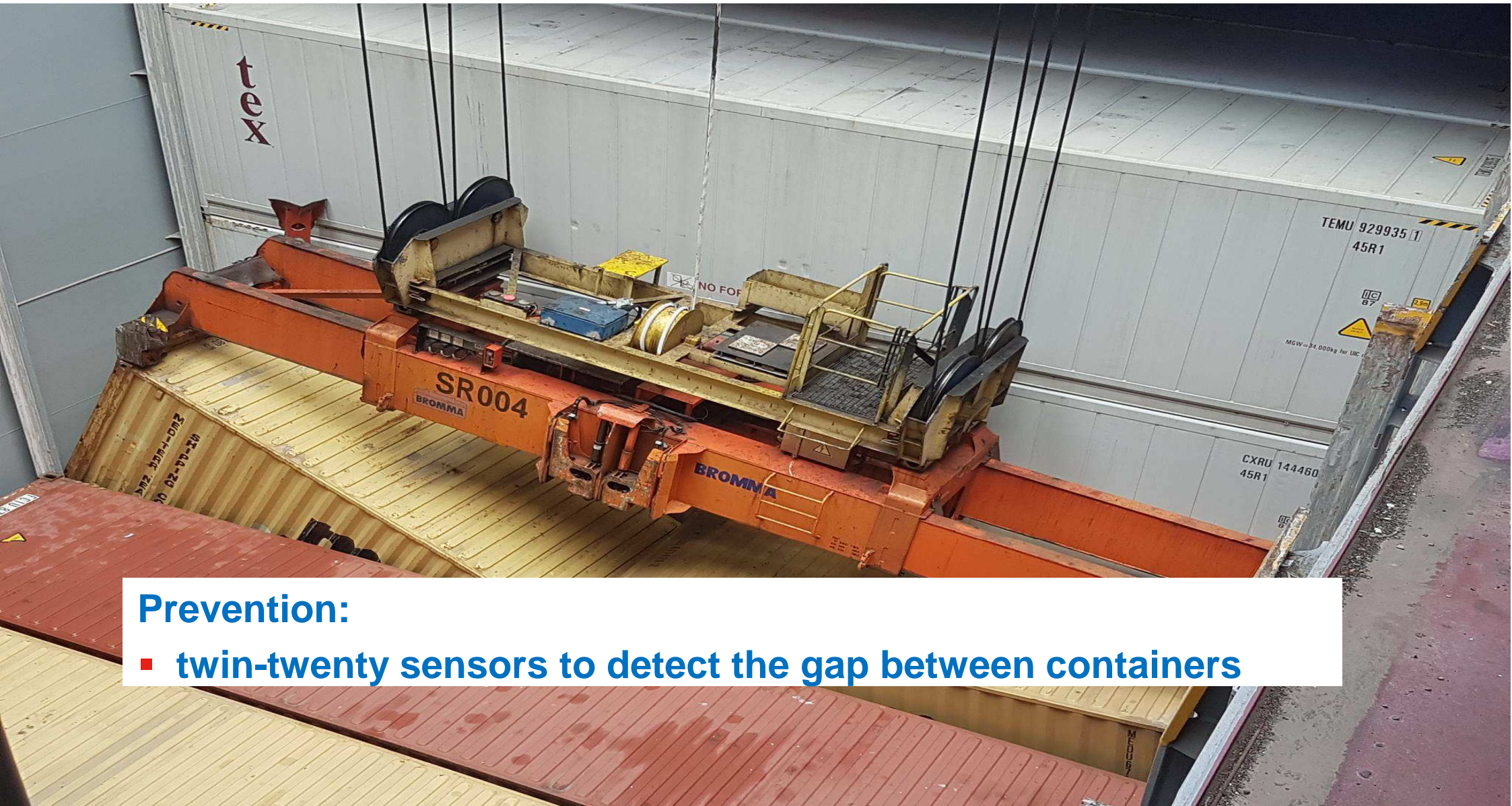
Loss prevention:

- 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

Lifting the trailer and container







Prevention:

- twin-twenty sensors to detect the gap between containers

Spreader, twistlock, container weight & eccentricity issues

13% of quay crane claim costs

11% of yard crane claims costs

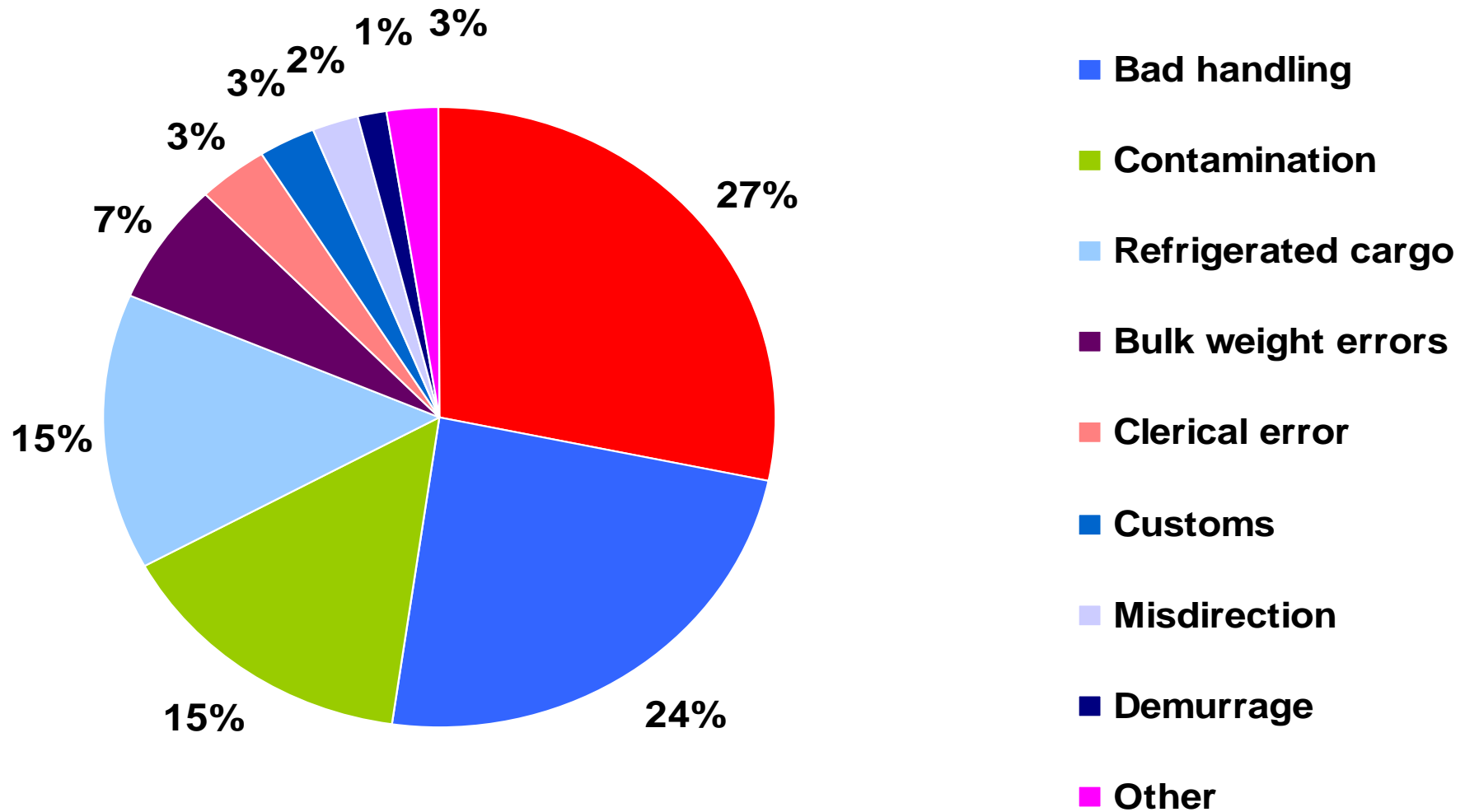
Many preventable with twistlock load sensing technology

Measures weight & eccentricity of each container

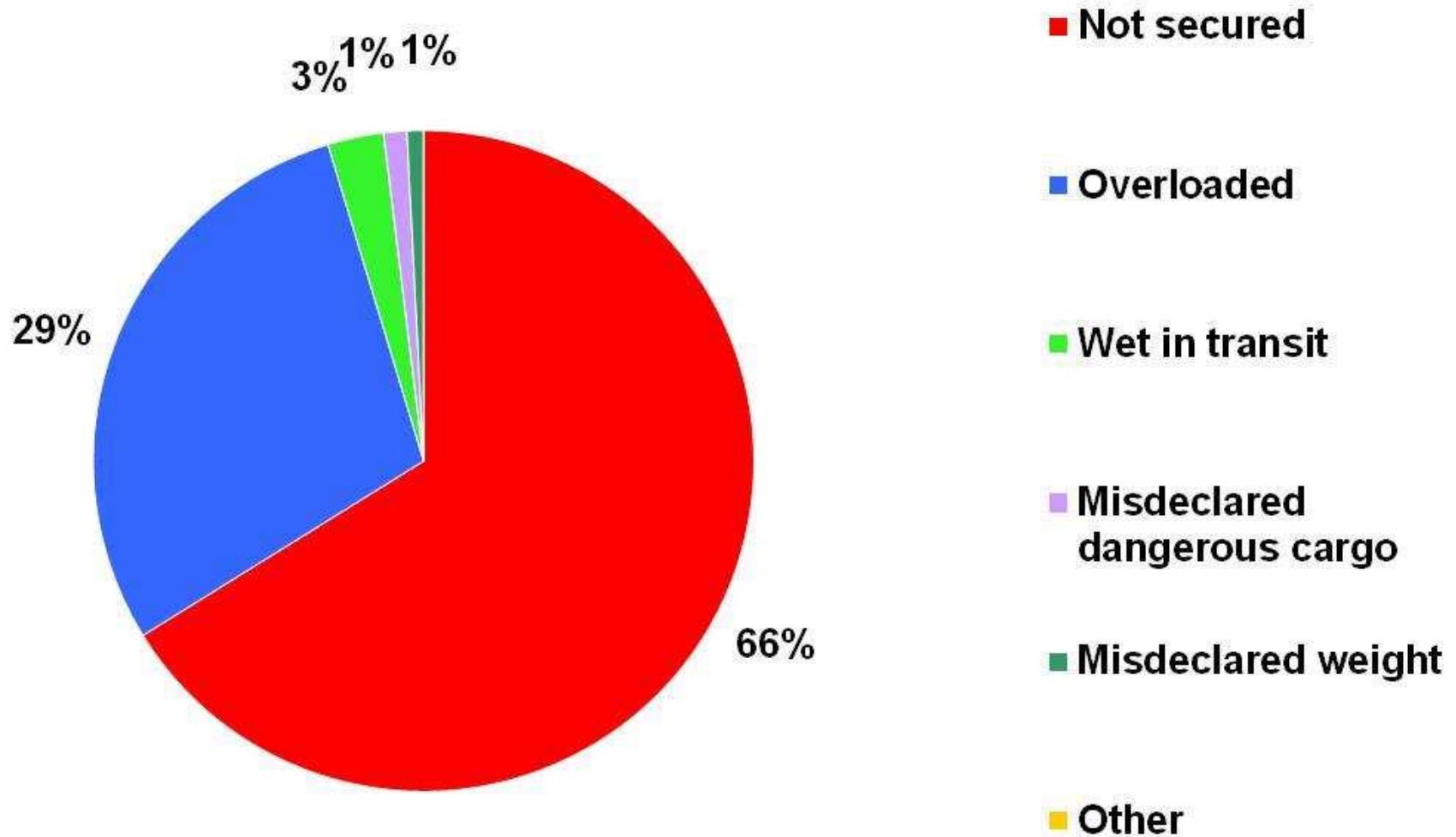
Can be installed on any twistlock, on any spreader and on any equipment

Suppliers:

- Lasstec – www.lasstec.com
- Bromma – www.bromma.com



Bad stowage/packing issues costs











Prevention: 'Pack it right'

- Declare correct weight
- Pack container evenly & securely
- Do not eccentrically pack containers
- Install twistlock load sensing on spreaders
- 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





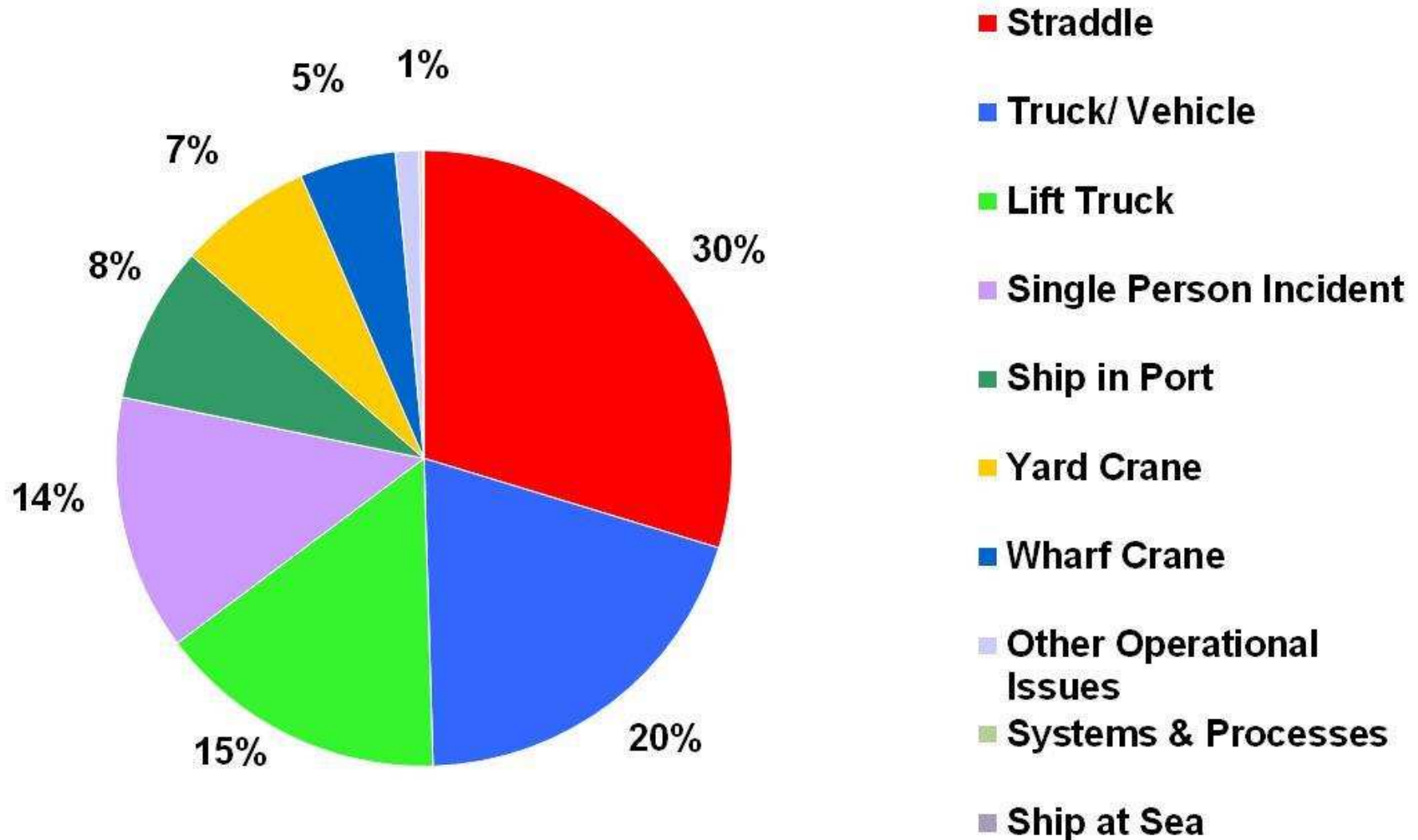
44% alleged damage – can't be disproved

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



Lift truck / light pole collision





77% 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

14% 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

Procedures:

- Better crane securing procedures & brake maintenance
- Ship movement & berthing procedures
- Security – theft
- Pack it right
- Traffic management
- Good housekeeping

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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