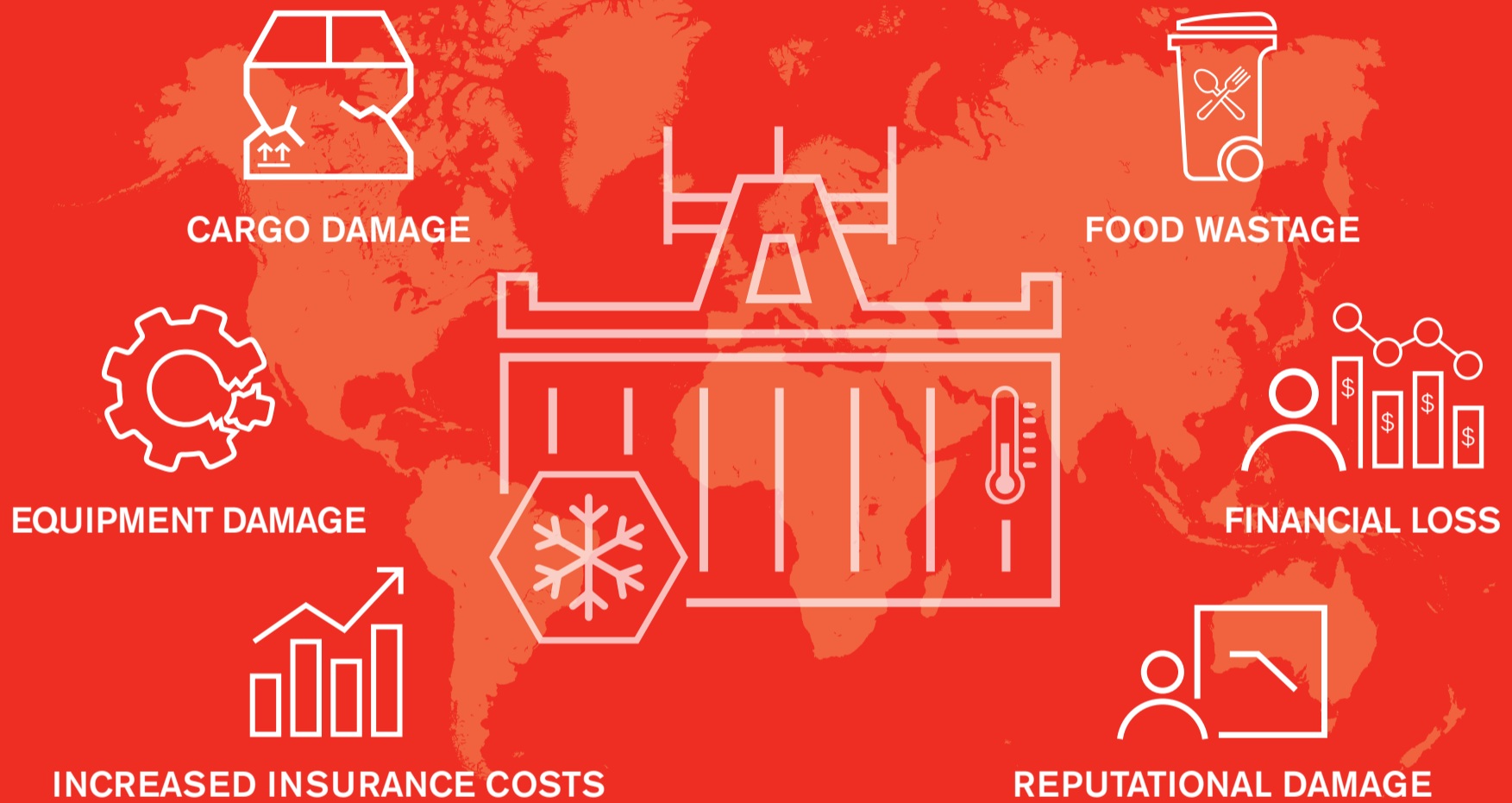


Temperature controlled cargo

Mitigating risk in the temperature-controlled supply chain

Temperature-controlled cargoes present operational challenges for all those in the global supply chain.

What are the risks?



How can you mitigate these risks?

COMMUNICATION

- Verify whether instructions are in degrees Celsius or Fahrenheit
- Double check whether the instructed temperature is "+" or "-" (chilled or frozen)
- Clarify any instructions you do not understand
- Avoid ambiguous instructions (temperature ranges)

PRE-TRIP INSPECTION (PTI)

Check

- Warning/indicator lights
- Gas levels
- Leaks
- Unusually noisy compressor (crunching, banging, rattling)
- Damage to the reefer equipment
- Blockages to the internal airflow

AT PLUG-IN

- Check the unit for structural damage
- Check the cable and plug for damage and report immediately
- Verify the temperature, humidity and ventilation settings against the documentation

PACKING

- Ensure the cargo is pre-cooled
- Stow below the red line
- Ensure that the air is able to flow around the cargo space (no short circuits)
- For containers, do not pack cargo beyond or block the channels at the end of the T-bar floor

MONITORING

- Record supply and return air temperatures to check for inconsistencies
- Notify the shipping line/cargo transport unit operator immediately if you note:
 - Temperature deviation of more than 5° F/C
 - Malfunction
 - Alarms or warning lights
- Where applicable, monitor and record readings for any humidity control, integrated controlled atmosphere or additional cargo probes

WATCH OUT FOR RED FLAGS

- Obvious impact damage to the carrying equipment
- Obvious errors in instructions (e.g. the cargo is described as "frozen tuna" but the instructions request "+25°C/ 77°F")
- Return air temperature readings significantly higher than supply air temperature readings
- Setpoint temperature different to instructions

