

# Smart Containers

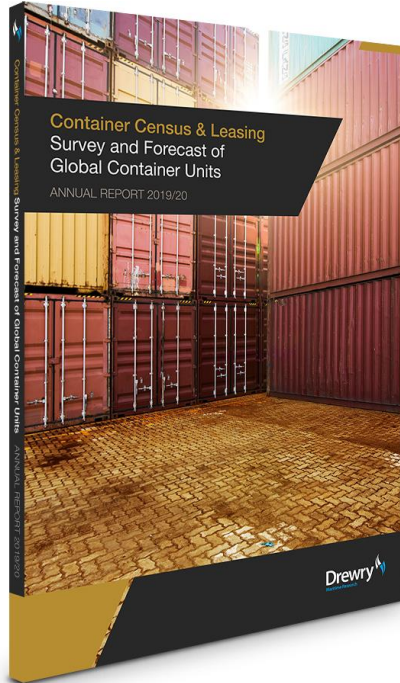
Market drivers & install rates

JOC Container Trade Europe, Hamburg  
17<sup>th</sup> September 2019

[www.drewry.co.uk](http://www.drewry.co.uk)

# Source Material & Methods

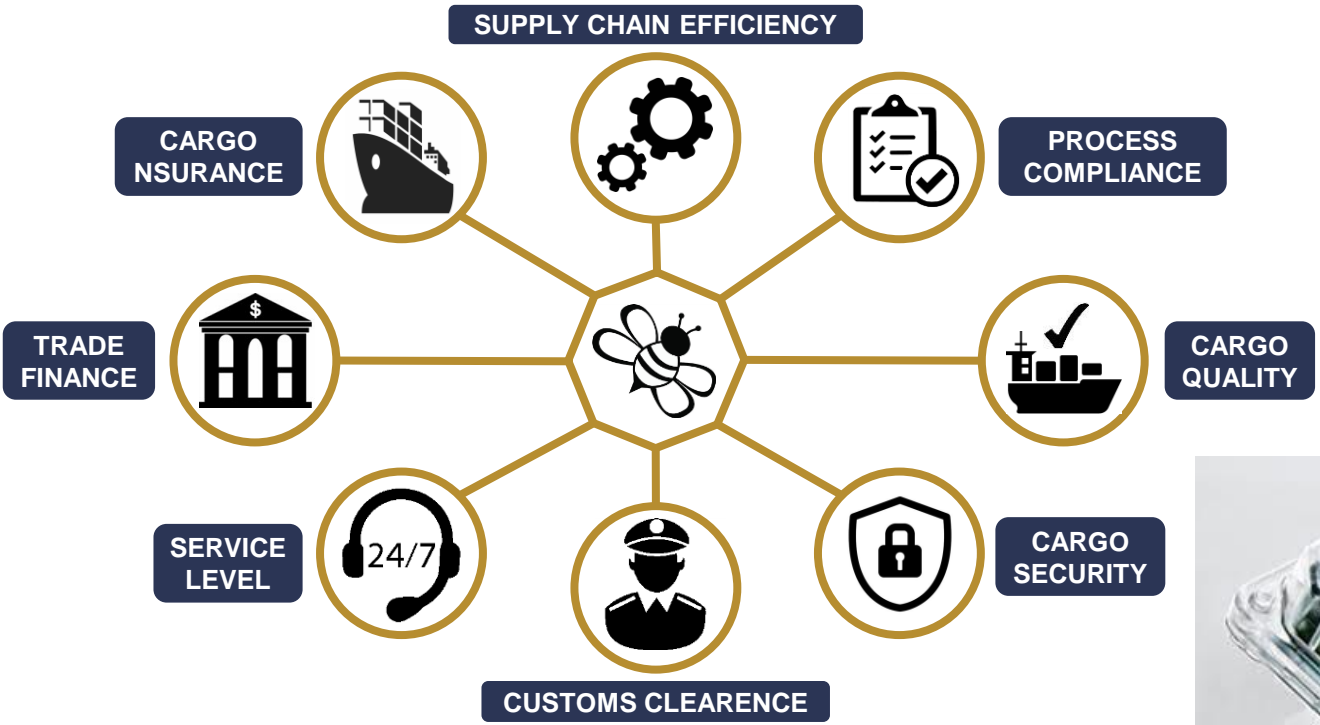
## Drewry's Container Census & Leasing 2019/20



- Published annually for 8 years
- Container equipment fleet census by operating type and 5-year forecasts
- Production stats & 5-year forecasts - output, capacity, utilisation & costs
- Fleet ownership profiles and forecasts by container type, geography and owner category
- Assessment & forecast of newbuild and second hand pricing, leasing rates, rehire rates and investment returns
- Includes dry standards and specials, reefer, tank and regional/intermodal fleets
- New analysis on smart container market, including estimates and 5-year forecasts of smart device install rates

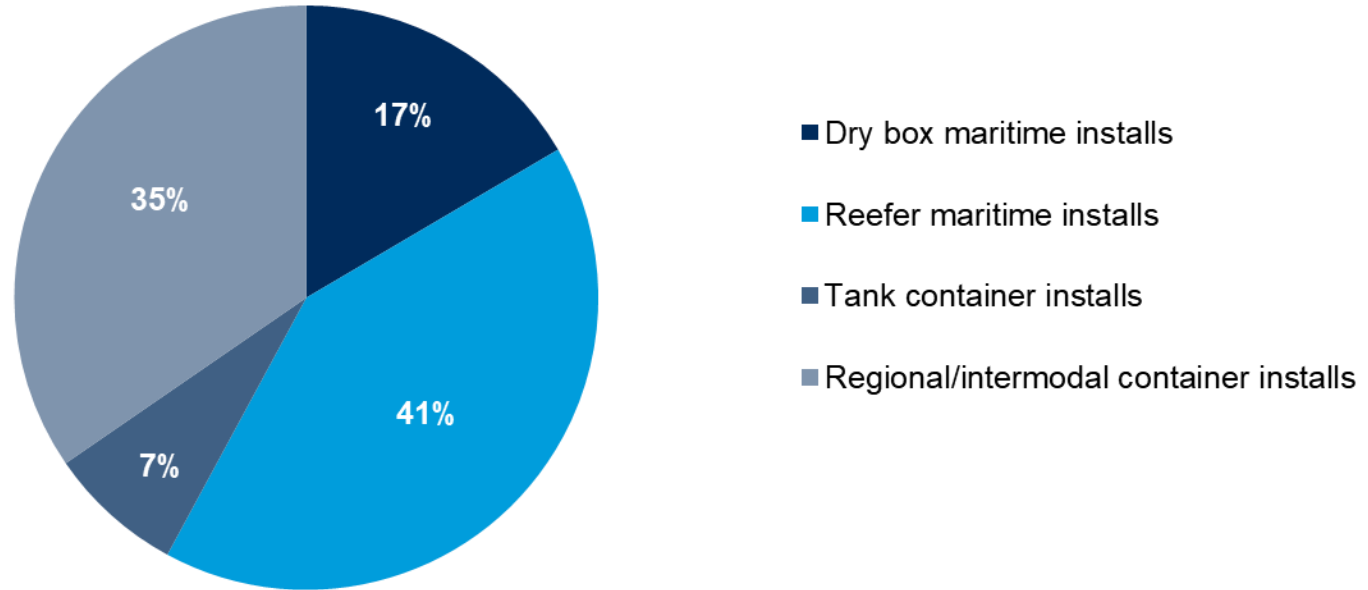
# Benefits of smart container solutions

Potential to radically transform the utility & value of shipping container assets



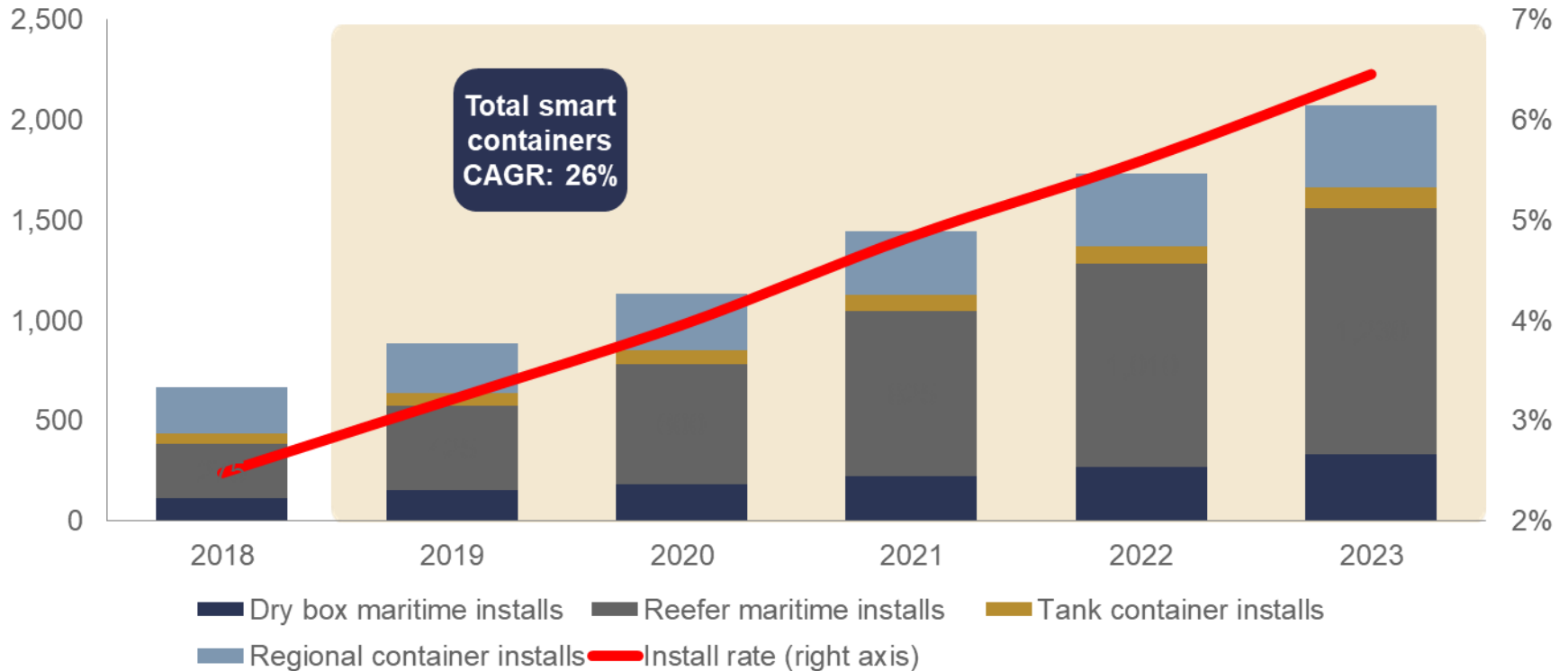
# Device installations by segment

High penetration in reefer and regional/intermodal but low in dry containers



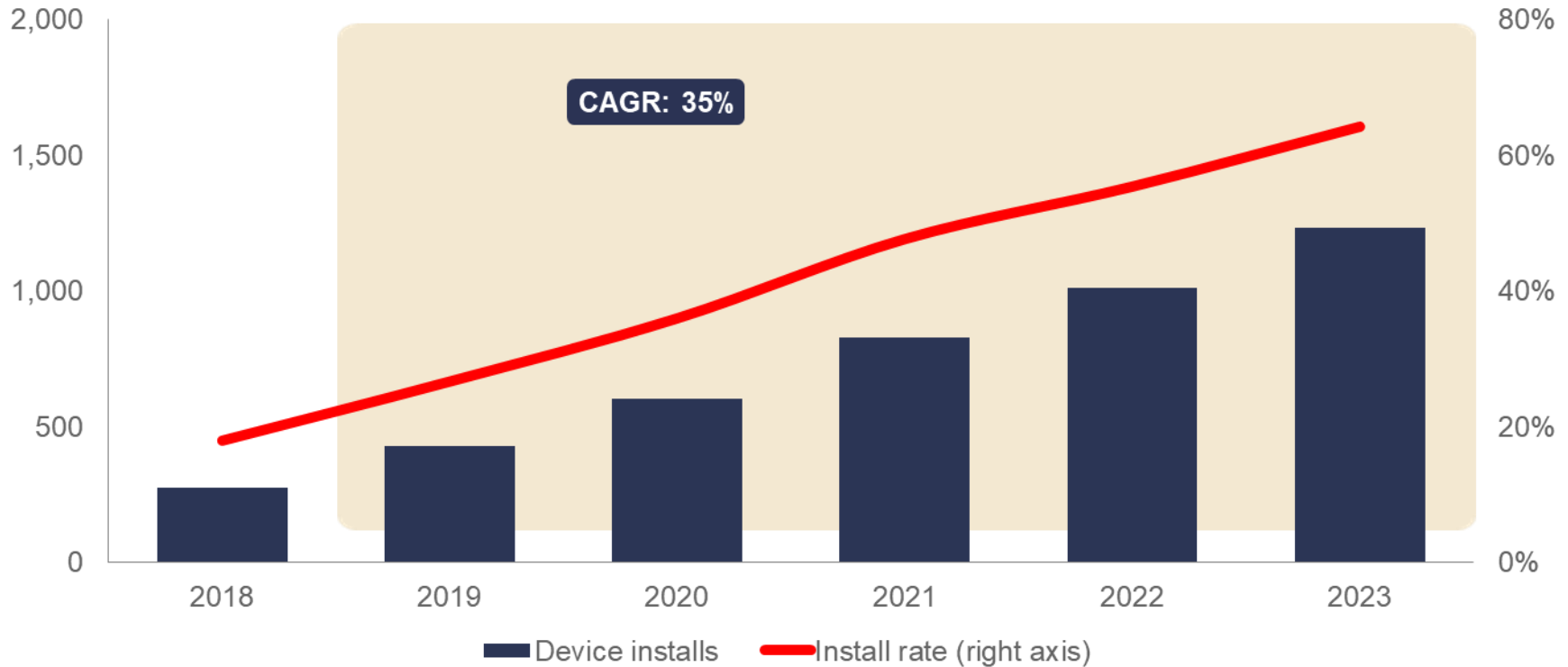
# Global smart container development

Three-fold growth anticipated over 5-years to over 2 million



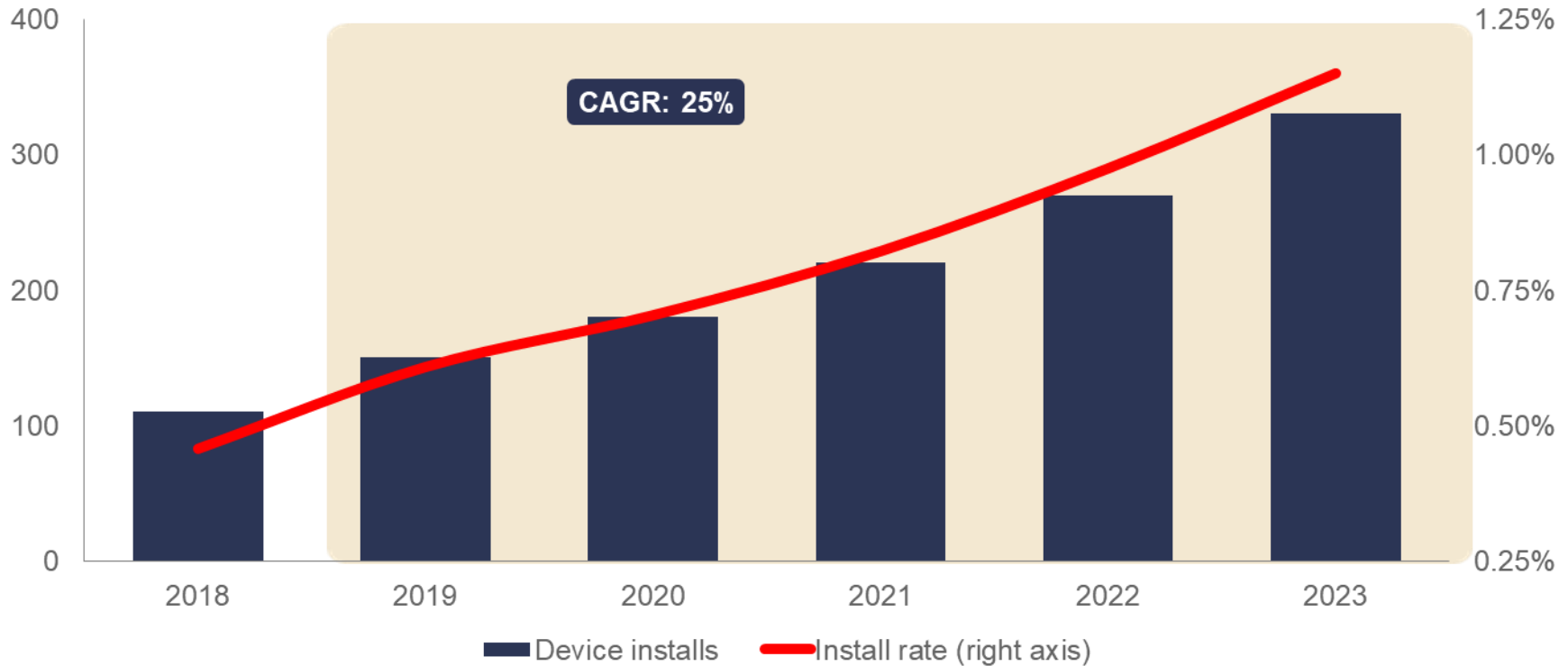
# Reefer smart container development

CAGR 35% to reach 1.2 million by the end of 2023



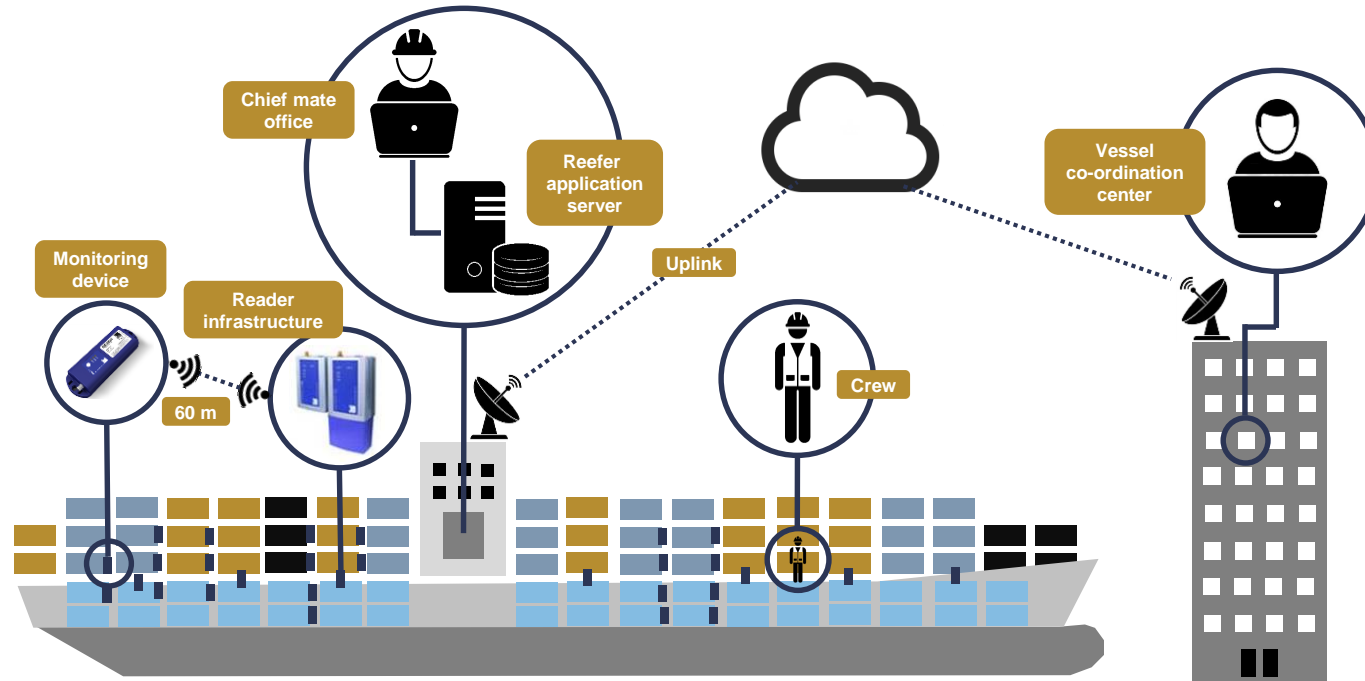
# Dry maritime smart container development

Projected to grow threefold but will still only represent 1% of the global fleet



# Typical remote reefer monitoring system at sea

Smart devices linked to vessel's on-board management systems





# Future Challenges & Opportunities

Potential to transform the utility and value of shipping container assets

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Despite opportunities challenges remain

- Reliability challenged in extreme temperatures and shock conditions
- Battery life can restrict regularity of transmission updates, and so use
- Perception that high spend required to deliver acceptable performance

But opportunities significant

- Improve safety of moving dangerous goods
- Cross-border trade facilitation – encourage frictionless trade
- Carrier service offer enhancement, supported by aggregator platforms
- Potential to transform the utility and value of shipping container equipment assets



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Tanker Shipping  
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Ship Management  
Logistics Management  
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