

**PANEL 3: LOGISTICS CHALLENGES AND OPPORTUNITIES IN THE
FRESH PRODUCE VALUE CHAIN.
EXPLORING THE ROLE OF DATA & TECH IN CREATING EFFICIENCIES.**

PANEL CHAIR:



**AJ GRIESEL
(SATI)**

PANELISTS:



**THOMAS ESKESEN
(ESKESEN ADVISORY)**



**HANS-OLE MADSEN
(ICTSI)**



**RICHARD FRANKLIN
(HALLS FRESH PRODUCE)**



**JACQUES DE VOS
(MEZZANINE, VODACOM GROUP)**

PANEL DISCUSSION



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PANELISTS



Thomas Eskesen

- **Founder Eskesen Advisory**
- Global boutique advisory company representing clients in numerous countries
- Specialising in Global Cold Chain strategies & investments
- Advisor to the South African fruit industry



Richard Franklin

- **CIO Halls Fresh Produce**
- Leading vertically integrated grower-based global marketer of sub tropical fresh produce
- Focused on tech to increase competitiveness
- Investment in tech solutions



Hans-Ole Madsen

- **Senior VP & Regional Head ICTSI**
- Europe, Middle East & Africa
- 30 years of international experience in the port, shipping & logistic industry
- ICTSI preferred bidder to operate Durban port



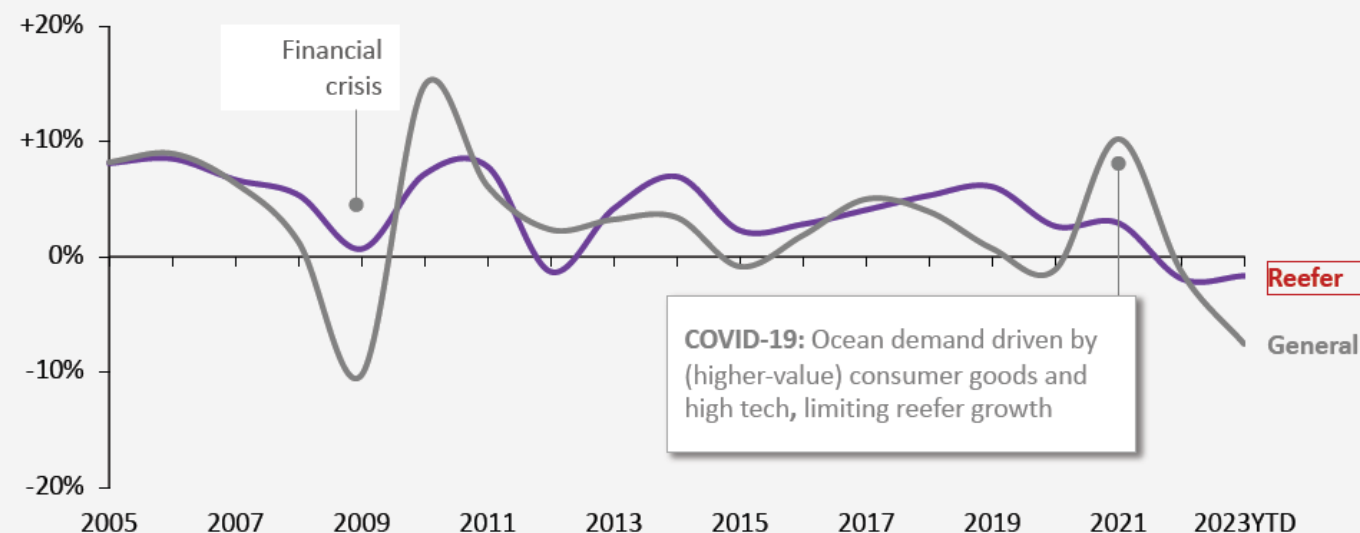
Jacques De Vos

- **CEO & founder of Mezzanine, Vodacom Group subsidiary**
- Delivering digital transformation across the African continent
- Operating 25 projects in 12 African countries
- Well versed in ag-tech & ed-tech

Reefer trades are trending below historical growth rates

Annual growth of containerized ocean trade, 2005-2023YTD¹

Year-over-year TEU change (%)



CAGR 2005-2019

Jan-Aug 2023
vs 2022¹



+5%

-2%

Reefer accounts for 6% of total containerized ocean trade, consisting of fresh foods (57%), frozen foods (41%) and other non-food perishables (2%)

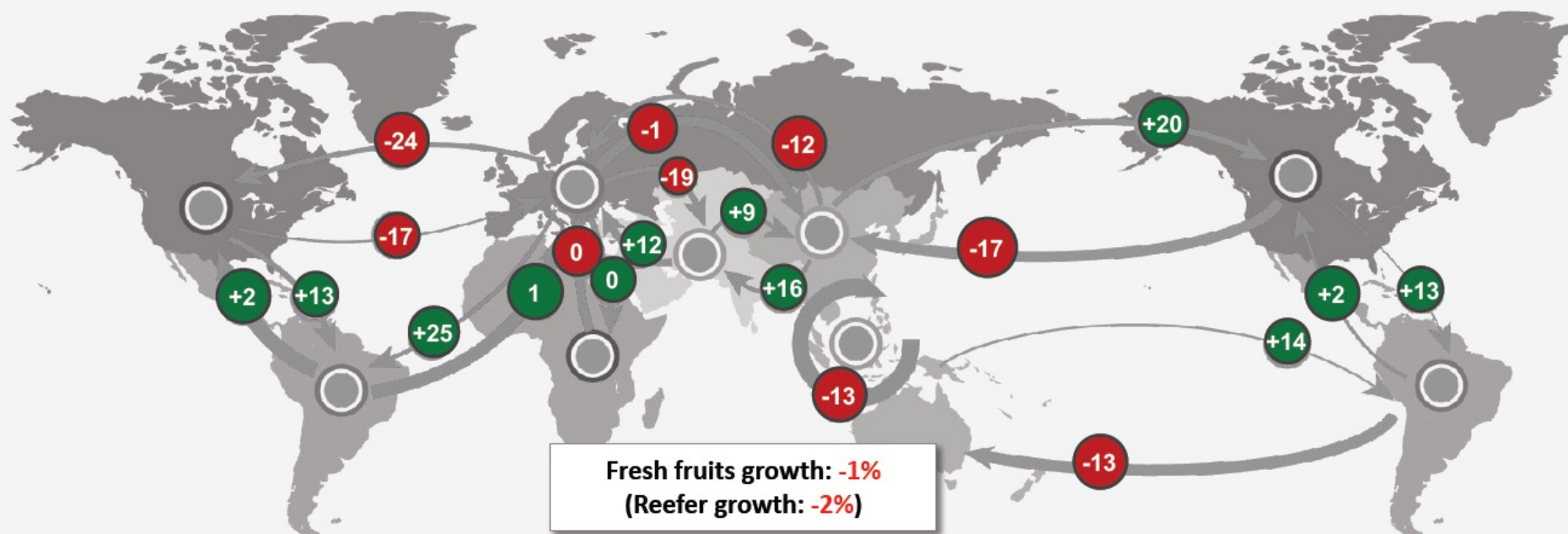
Note: Container ocean trade only; Reefer container trade described as "Temperature or Climate Control" in Accenture Cargo databases; 1) Includes Jan-Aug data, compared against Jan-Aug 2022

Source: Accenture Cargo Global Ocean Trade Database; Accenture Cargo and Eskesen Advisory analysis (November 2023)

Huge variances in global trade patterns continues

Fresh fruits reefer trade growth by trade lane, 2023 YTD¹ vs. 2022

TEU change (%)



Notes: Container ocean trade only; Reefer container trade described as "Temperature or Climate Control" in Accenture Cargo databases; Arrow sizes not always indicative of trade size (some trades are much smaller in reality); 1) Comparison of Jan-Aug 2023 v Jan-Aug 2022

Source: Accenture Cargo Global Ocean Trade Database, Accenture Cargo and Eskesen Advisory analysis (November 2023)



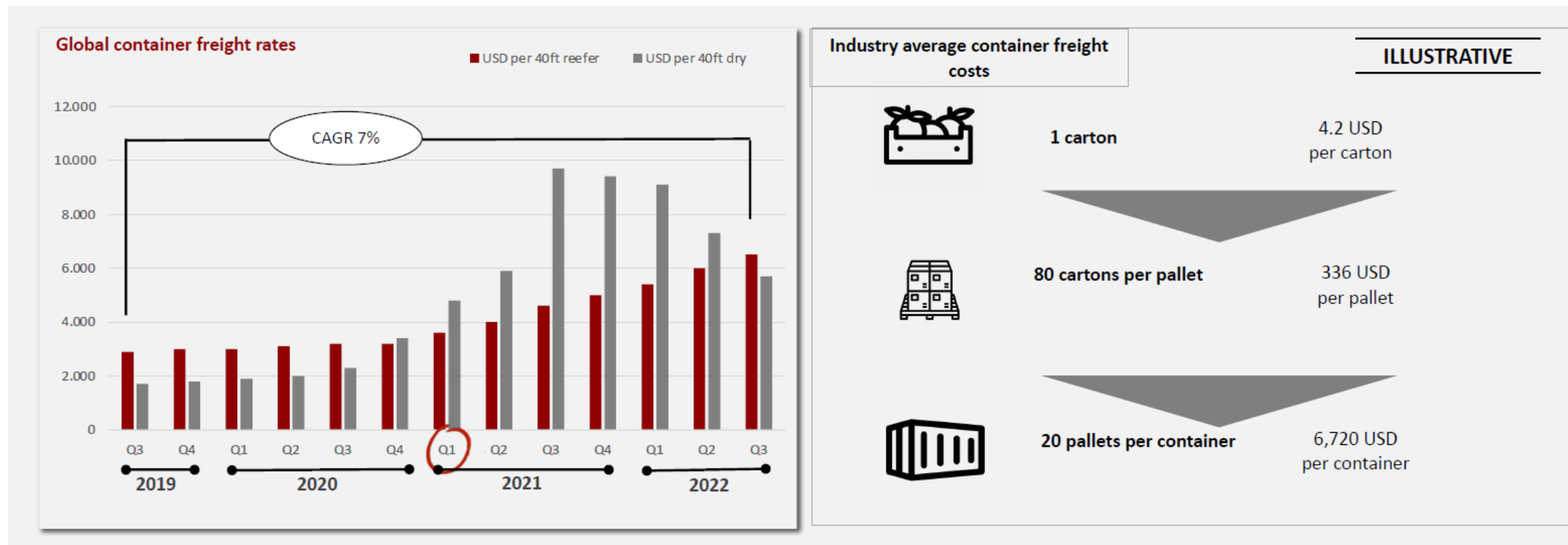
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This is driven by challenged profitability for farmers around the world



The correction in freight rates during 2023 will give much needed relief towards 2024+

Sources: Drewry, Bureau for Food and Agricultural Policy (BFAP), Accenture Cargo Global Ocean Trade Database, Accenture Cargo and Eskesen Advisory analysis (February 2023)



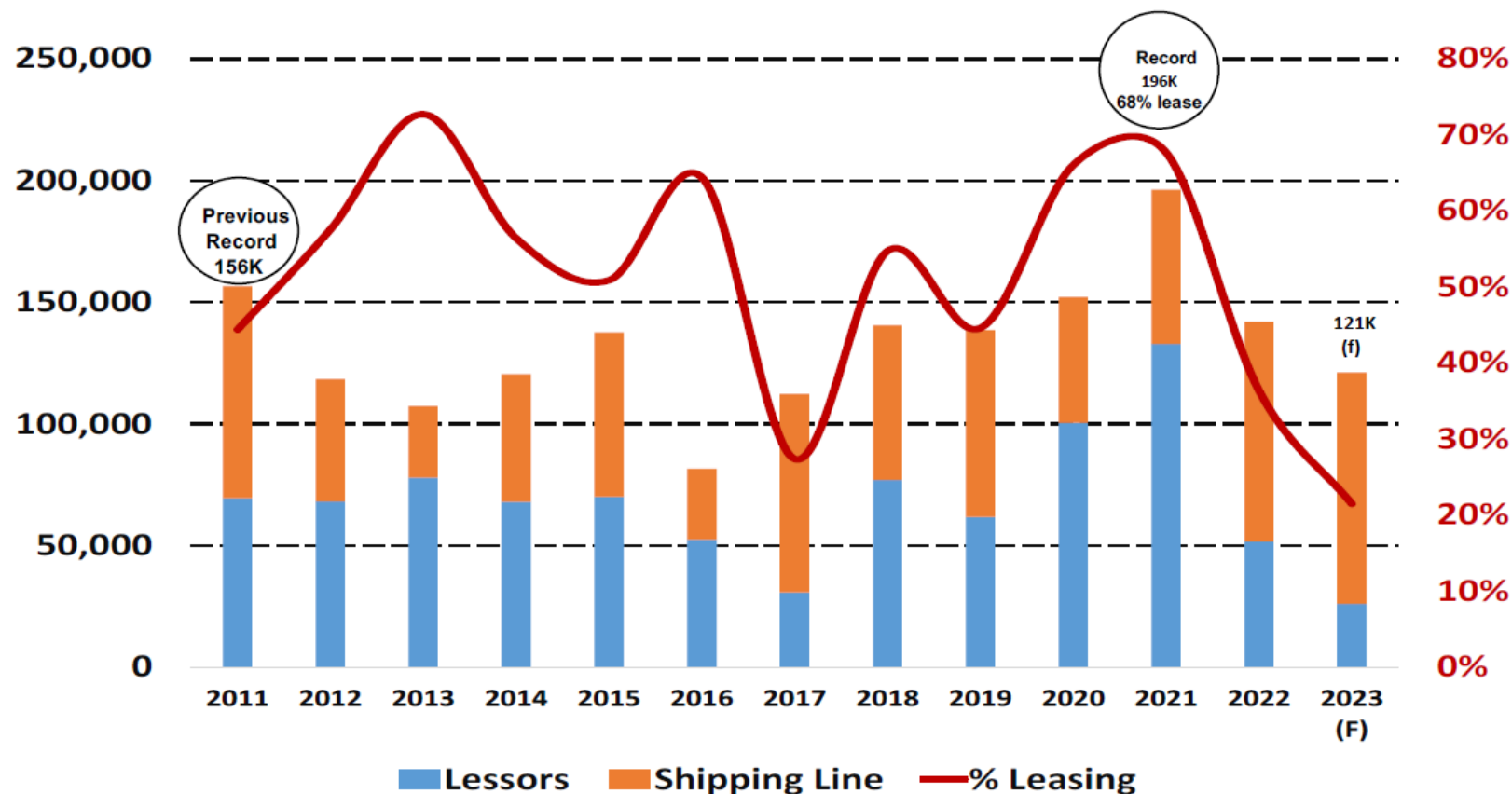
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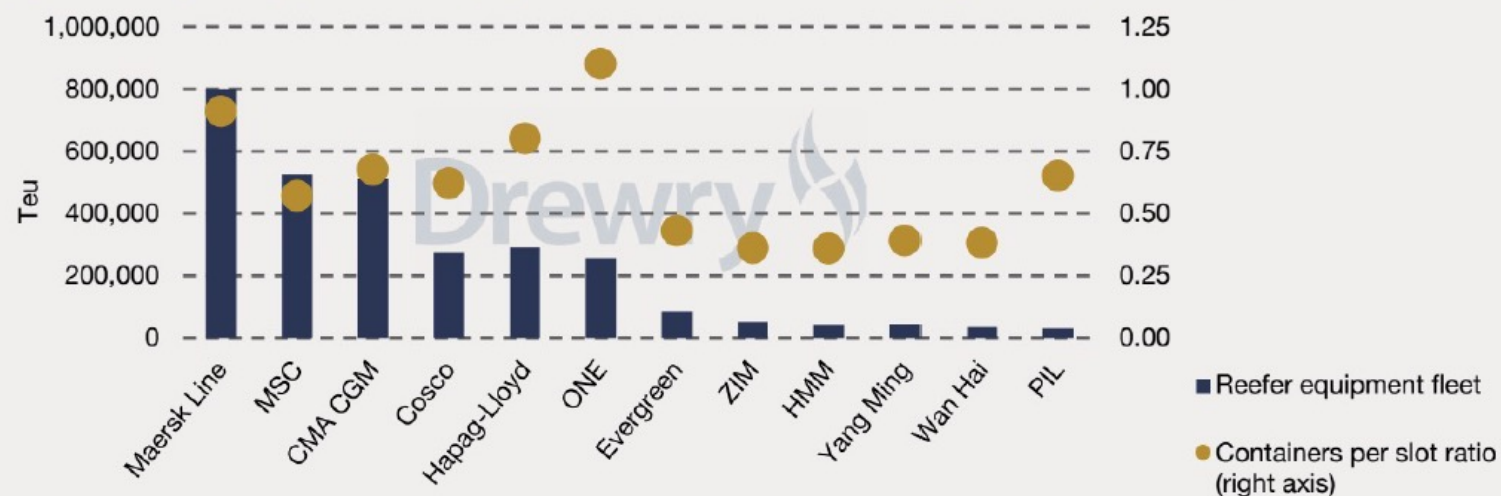
Drop in reefer unit production reflects lower demand



- ▶ Overall low production forecast 2023 (121K) with approx. only 21% leasing
- ▶ Rise in liner purchased volume portion, driven by fleet replacement and strong liquidity
- ▶ Collectively shipping lines purchased 288K Reefers between 2008-2012 – which are now coming into their 11-15-year retirement bracket and being replaced

The Global Reefer market is highly concentrated top 6 dominates with high barriers to entry

Figure 5.3 Operating container equipment fleet estimates for leading container carriers, June 2023

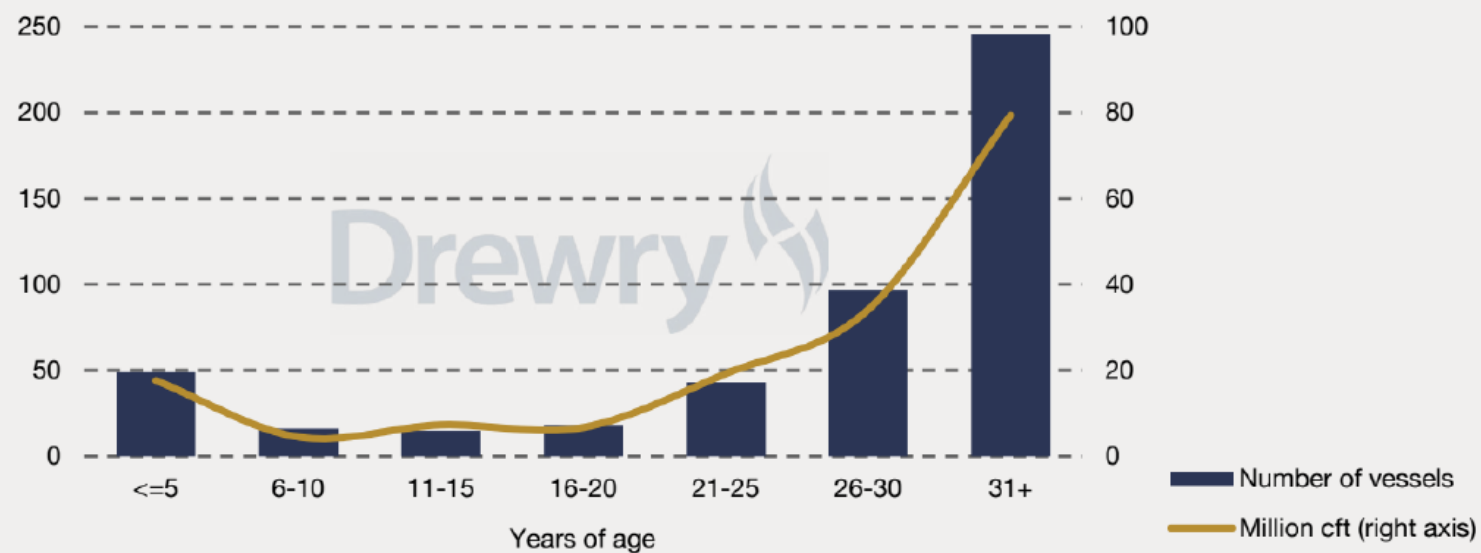


Source: Drewry Maritime Research



The ageing Specialized reefer fleet continue to decline

Figure 6.2 Specialised reefer and freezer fleet: age summary, June 2023



Source: Drewry Maritime Research



2023 Expectations and Implications for shippers

Global Port **congestion** impacted deliveries and **on-time** arrivals well **below 50%**

- Should improve. Local strikes a big wild card
- ILWU deal on US West Coast finally signed now US East Coast up for renewal
- Locally in SA hard to say Transnet has matters until control, but ITCSI involvement in Durban in 2024 a big boost
- The Panama Canal restrictions for vessel transits is a major wild card for shippers from West Coast South America

Carriers Reefer equipment positioning was hampered by full and more attractive dry cargo, prompting carriers to accelerate **reefer rate increases** in most trades

- Much **improved outlook, rates will be lower in most markets with rational competition**

Record profits by ocean liner companies may eventually translate into better service and capabilities

- Have already returned to **losses in 2nd half of 2023**

Significant investments made by Ocean carriers in newbuilding's, containers and logistics assets

- Switch toward **green assets** likely to accelerate
- Gearing up for new environmental compliance, more slow steaming, Carbon Tax starting in EU 2024

The **Russian invasion of Ukraine** had profound impact on reefer markets and input costs.

- Likely to **continue**

Fresh / Perishable SUPPLY Side will remain **tight** World Wide

Who We Are



The largest independent GTO

Market cap of US\$ 8B – Philippine based

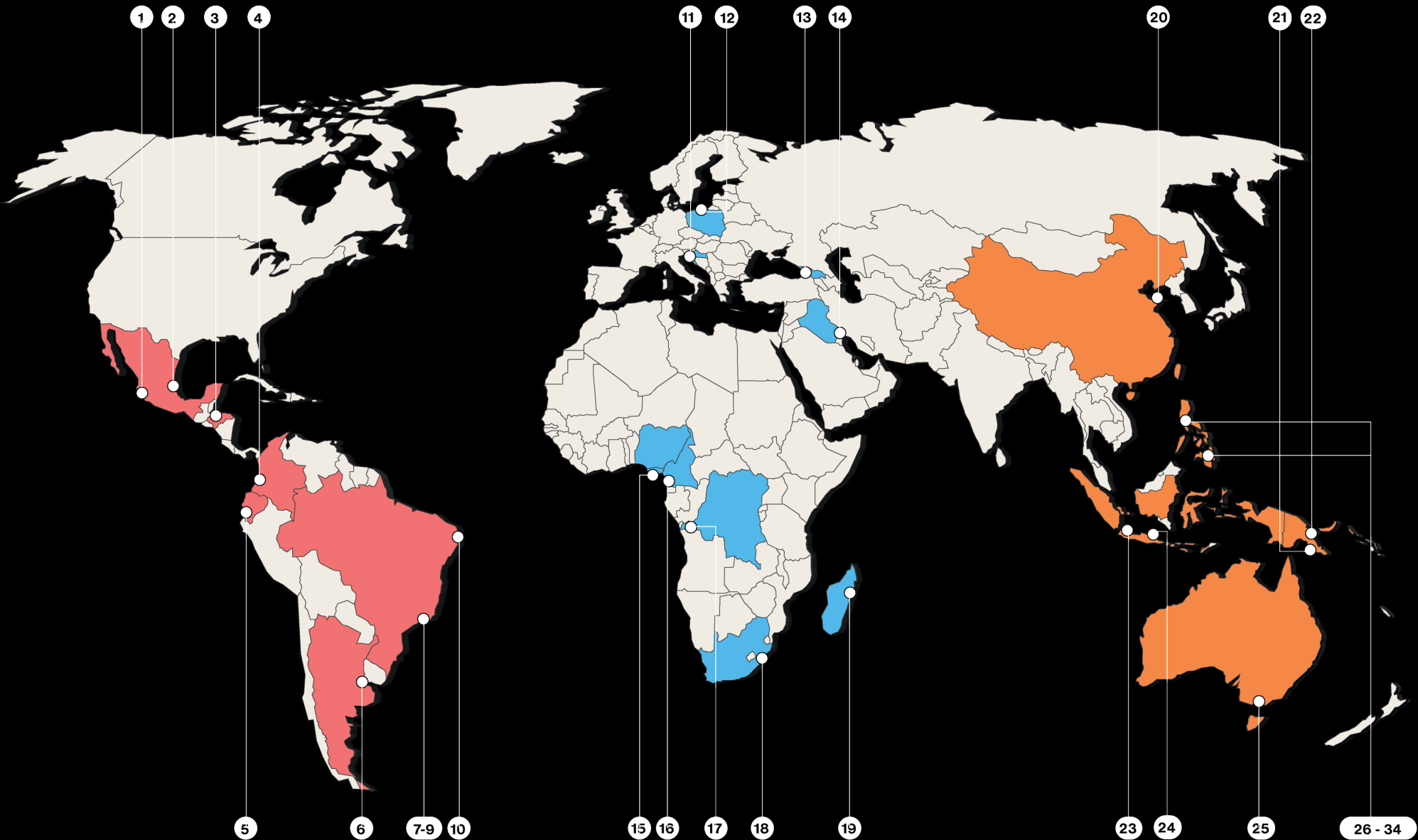
Over 30 facilities in 20 countries

Consistent financial growth over 18yrs

Focus on gateway ports



The ICTSI Global Portfolio



Public Private Partnerships – Ports

Origins

- Early 1980s – ABP

Reasons

- Lack of public funding
- Port Management and Terminal Operations: different skill sets
- Achieve stable revenue flows that facilitate timely re-investment

Form

- Performance standards, volume goals, investment levels, etc. for Operator
- Obligations are responsive to market requirements
- CAs evolved over the years – they are tried and tested instruments

How?

- Concession Agreement (CA) the most common PPP vehicle
- A CA stipulates the rights and obligations of both parties for an agreed upon term
- Outright sale? It is not!

ICTSI's Digital Mission



As the largest independent operator across 6 continents, ICTSI will leverage digital technologies to bring new levels of interactivity to our customers. From shipper to vessel and vessel to consignee, we will make ICTSI the simplest, most transparent and visible journey available, whilst maintaining our shipping line neutrality.

We remain committed to helping our customer community succeed and grow. Your success is our success.

ICTSI Sustainability



Carbon Neutral Terminal Operations

Hybrid handling equipment

Green energy consumption

Wilderness and biodiversity preservation



2021



CGSA handled the world's 1st FCN Box

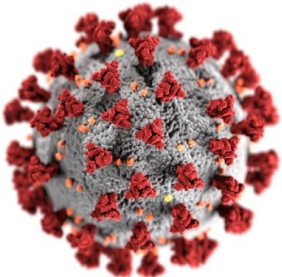
External forces have significant impact on fresh produce



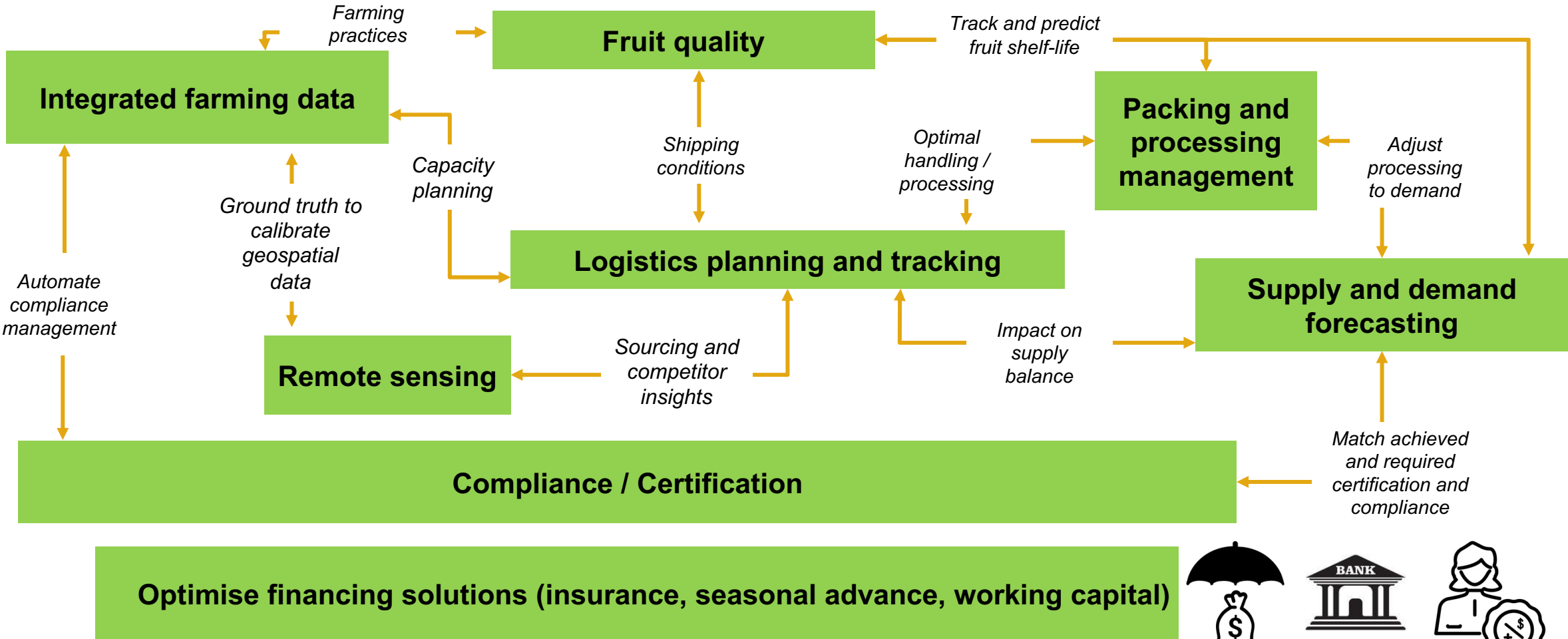
Energy
Labour
Climate
Water
Regulations

Availability
Timing

Demand



Integrating data to improve the fresh produce value chain



Measuring quality throughout the value chain to improve operations



Non-destructive testing is critical to understand fruit quality from farm to consumer, to drive continuous improvement, and to reduce waste



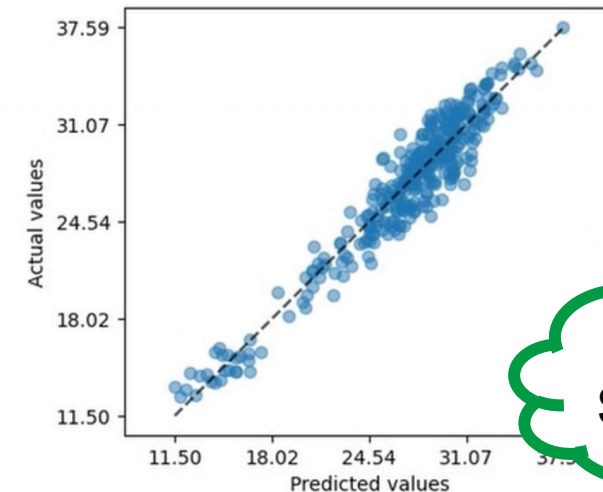
A broad set of features are analyzed and AI models trained to identify them:

- Size
- Dry matter
- Firmness
- External & internal disorders
- *Also: TSS, acidity, mould, decay, etc.*



Track and model fruit behaviour:

- Internal quality development
- Days to ripeness
- Shelf life expectancy



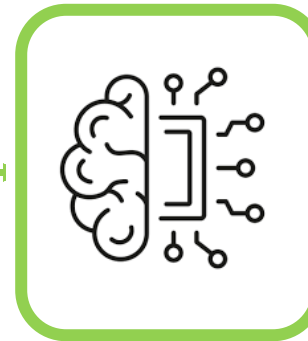
Benefit:
\$20-200/ton

Gain insights into impact of market disruptions

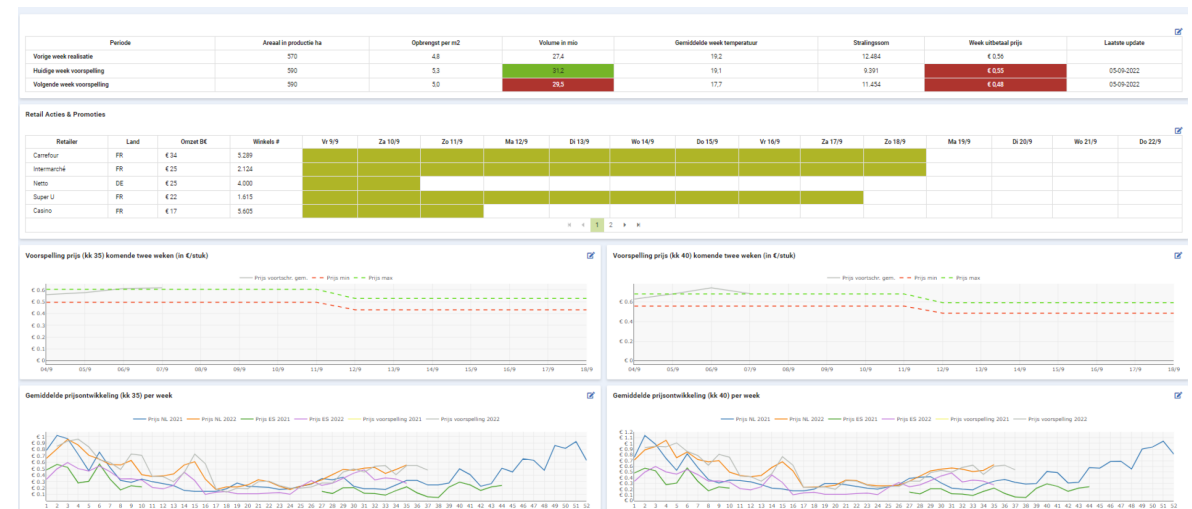
Understand impact of global market movements, creating transparency, efficiency and profit



**Data model to
interpret and learn**



- **Supply/Demand forecast**
... to minimize waste
- **Price trends and forecast**
... to anticipate market
- **Business Intelligence**
... to maximize profits



FOOD VALUE CHAIN

Key Data Value Drivers

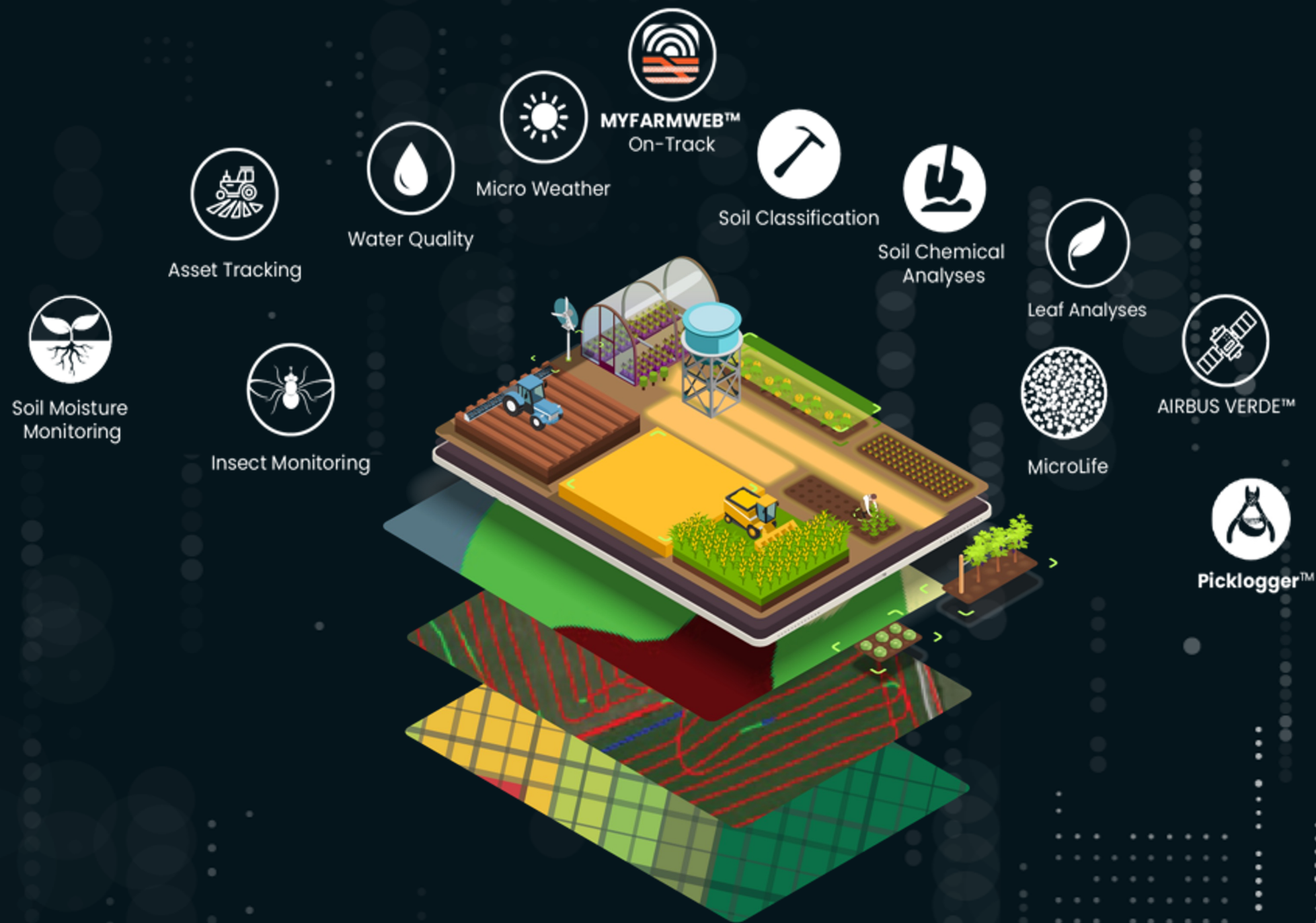


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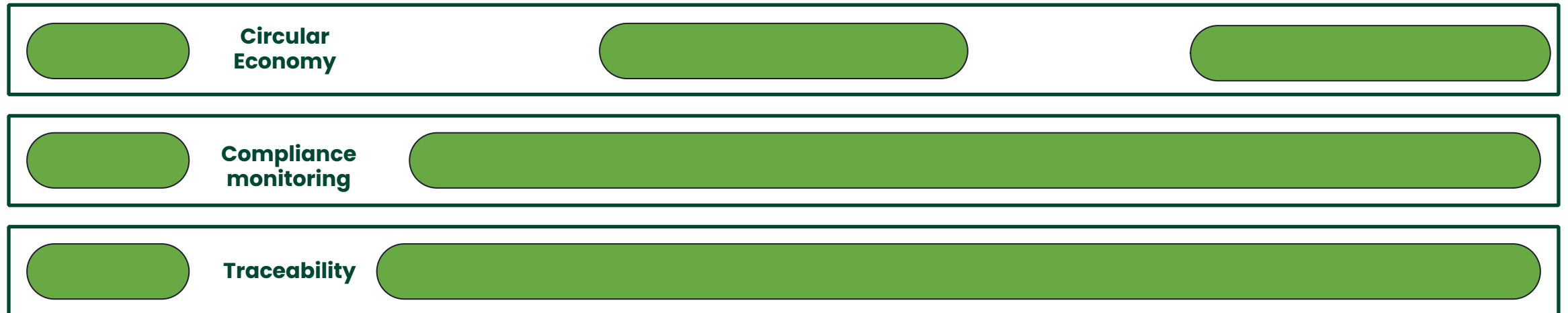
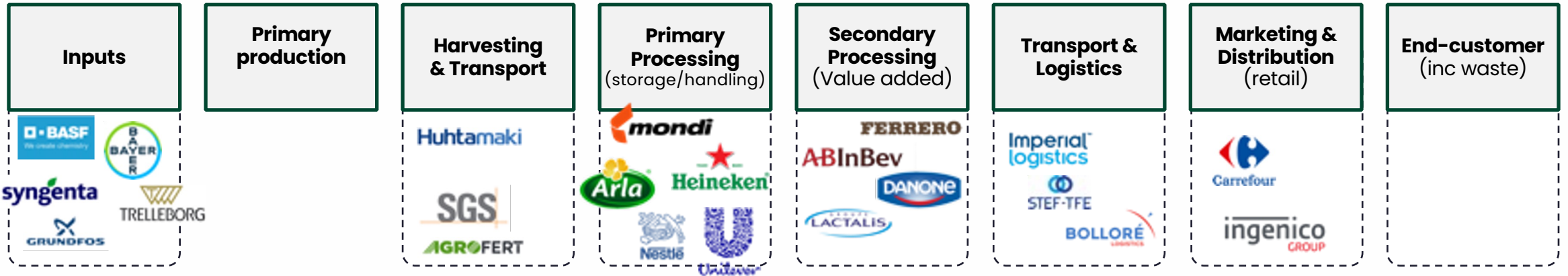




Connecting the food value chain



Primary Production Data Economy



SUMMARY: KEY THEMES



Shipping – Logistics data can be useful for planning, forecasting, analysing trends



Port Operating – Data helps with scenario planning, agility, recovery rates



Trend towards **privatisation of port operations** expected to continue. How do we empower ourselves?



Sustainability & traceability key components of a transparent value chain



Key focus is to **integrate the data elements** available along the value chain



New technologies are only as good as the data & systems they rely on

HOW WE LEVERAGE THE DATA AVAILABLE TO US REMAINS THE KEY



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