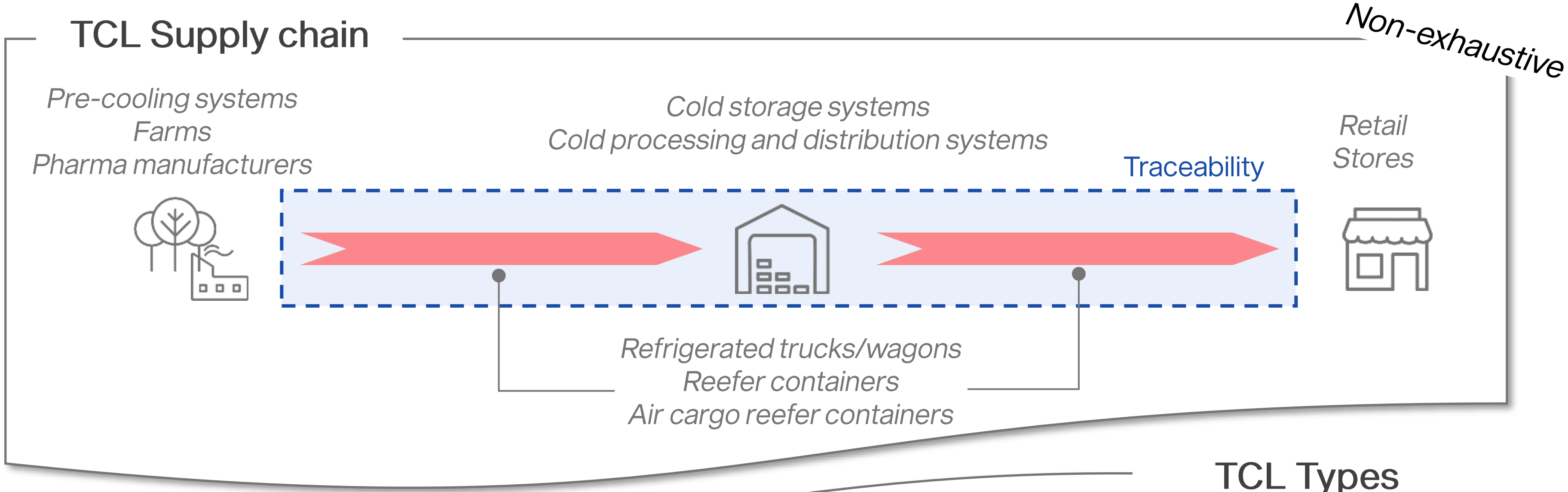
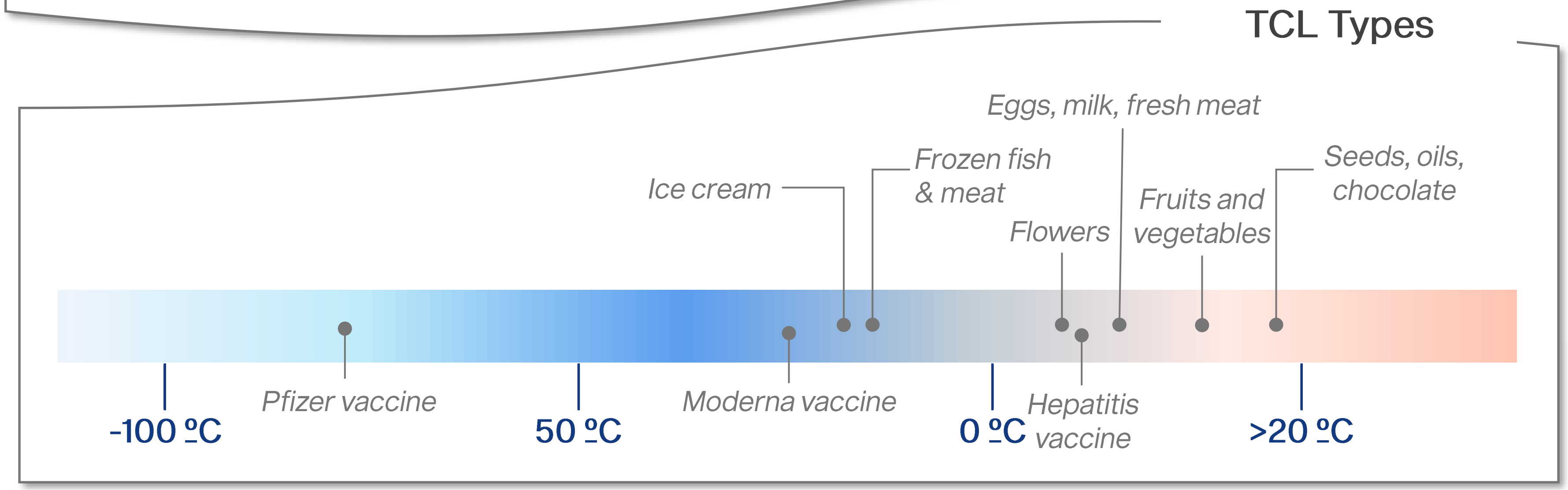
LATAM'S COLD CHAIN

A way to go: Case Study in Dominican Republic

Alhambra Advisors
Transforming Infrastructure Globally

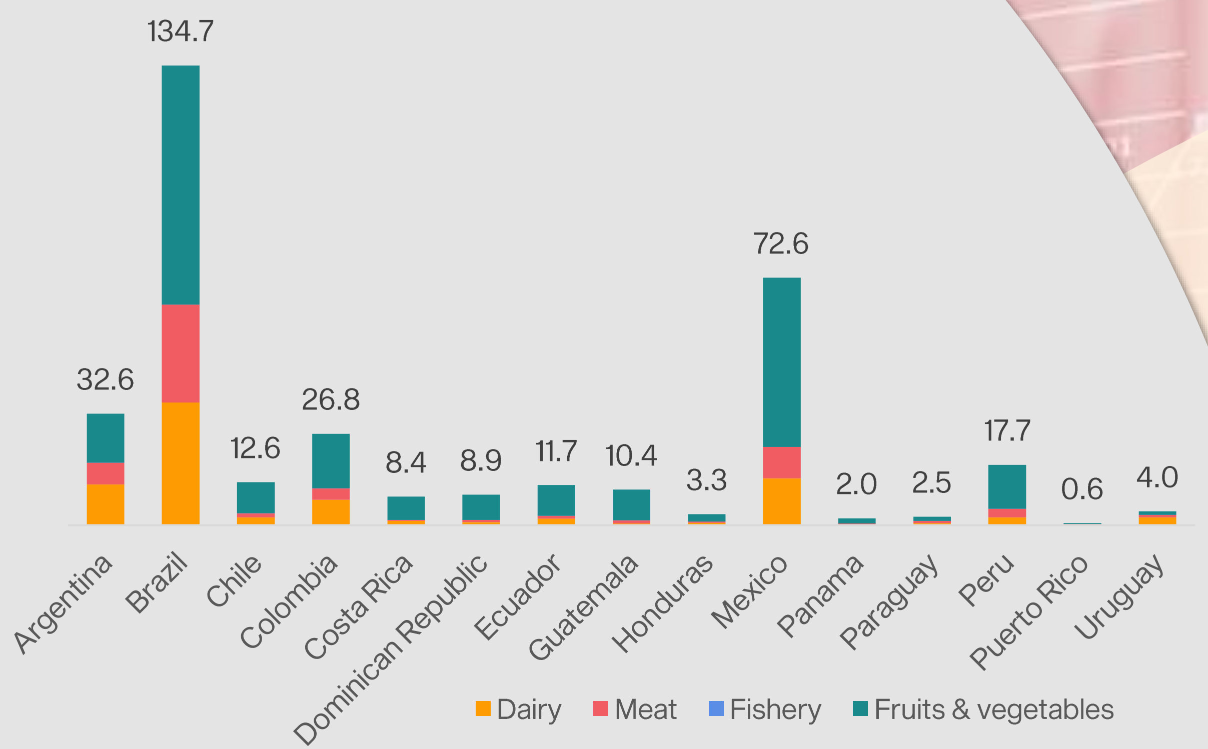
TEMPERATURE CONTROLLED LOGISTICS





LatAm: An overall market of over 360 MTn per year

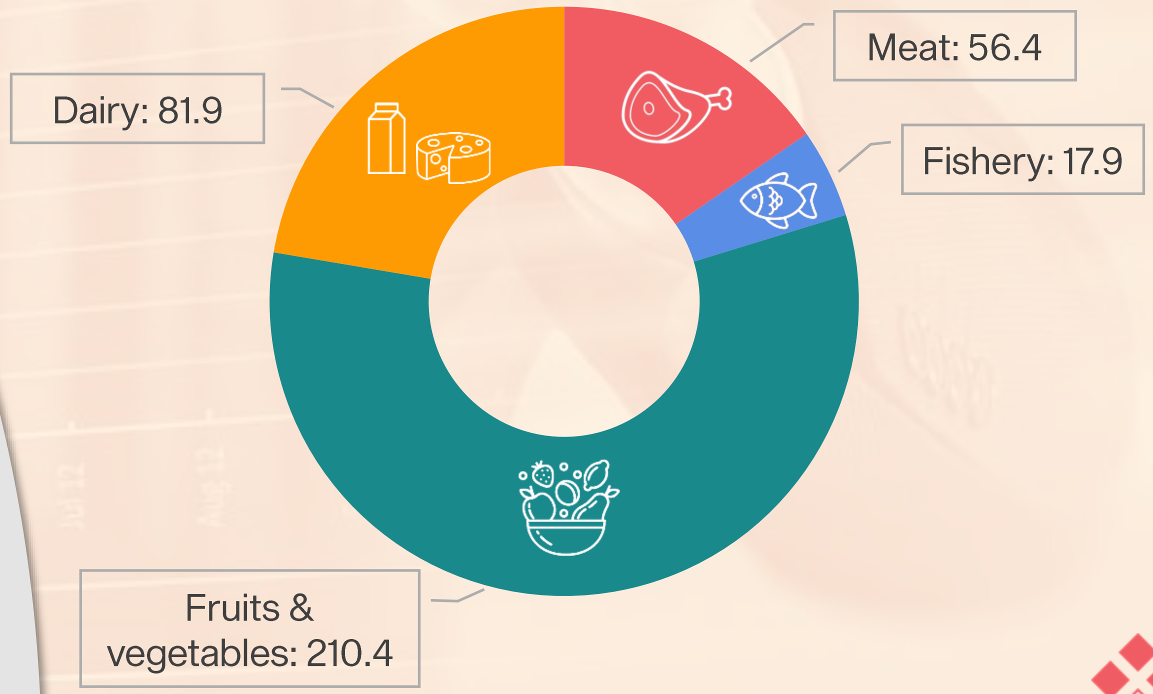
TCL LatAm market



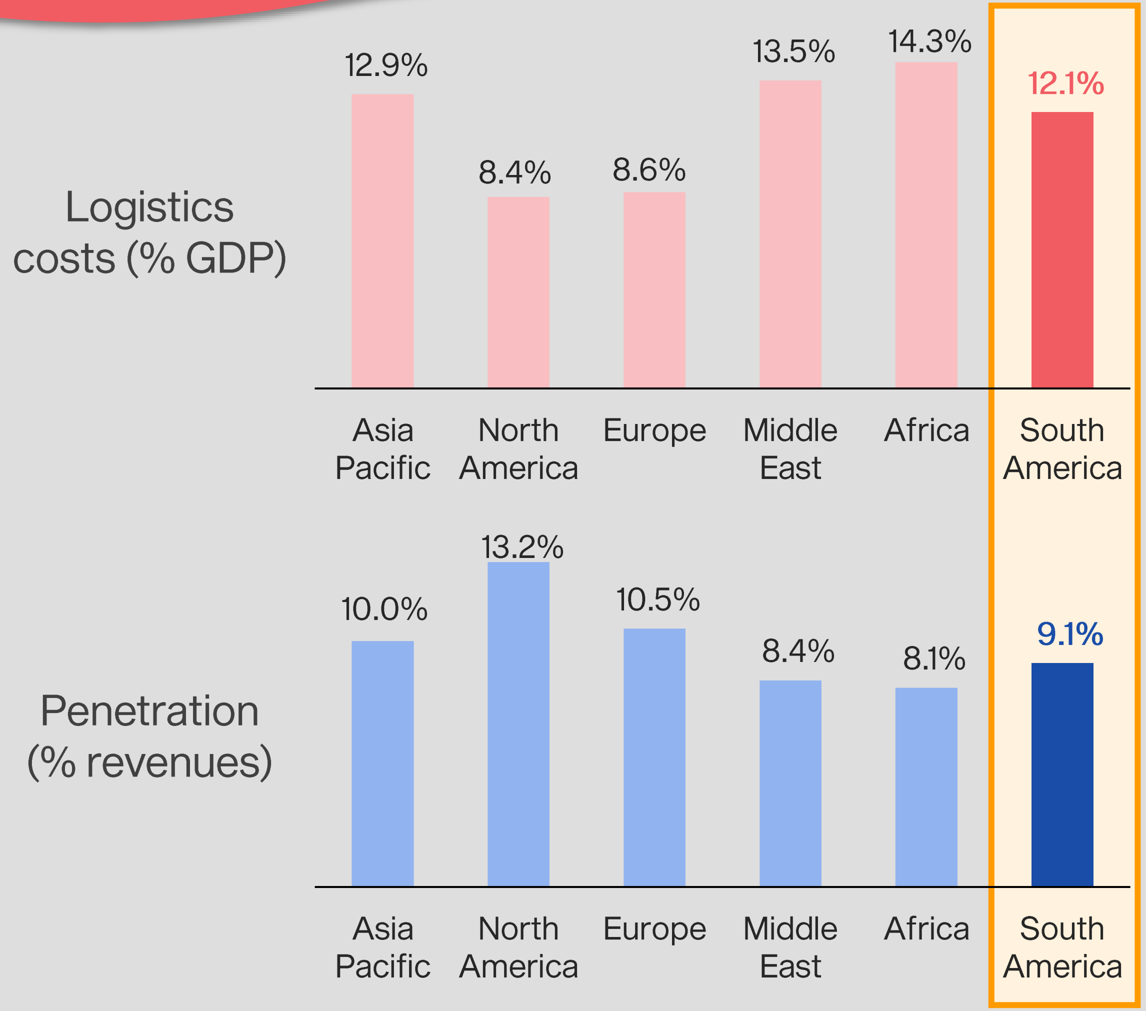
Note: Countries considered Argentina, Brazil, Uruguay, Paraguay, Panama, Guatemala, Honduras, Costa Rica, Dominican Republic, Puerto Rico, Mexico, Chile, Colombia, Peru, Ecuador.

Source: FAOStat (2022), Team analysis

TCL by industry



Higher logistics costs and lower penetration than most world regions



Source: Amstrong & Associates

Challenges

- **Limited infrastructure** in transport network and warehousing
- **Outdated warehouses and aged fleet** (>15 years in LatAm)
- High **investments levels** required for infra and equipment upgrade
- Lack of **integration** systems and lower IT developments
- Lack of specialized **human resources**
- **Higher OpEx** due aged vehicles and obsolete infrastructures
- **Atomization of transport**: 80% with a fleet size below 5 vehicles
- Small to medium **local players** leading to lower economies of scale
- High **seasonality** of some cargoes leading to higher dimensioning

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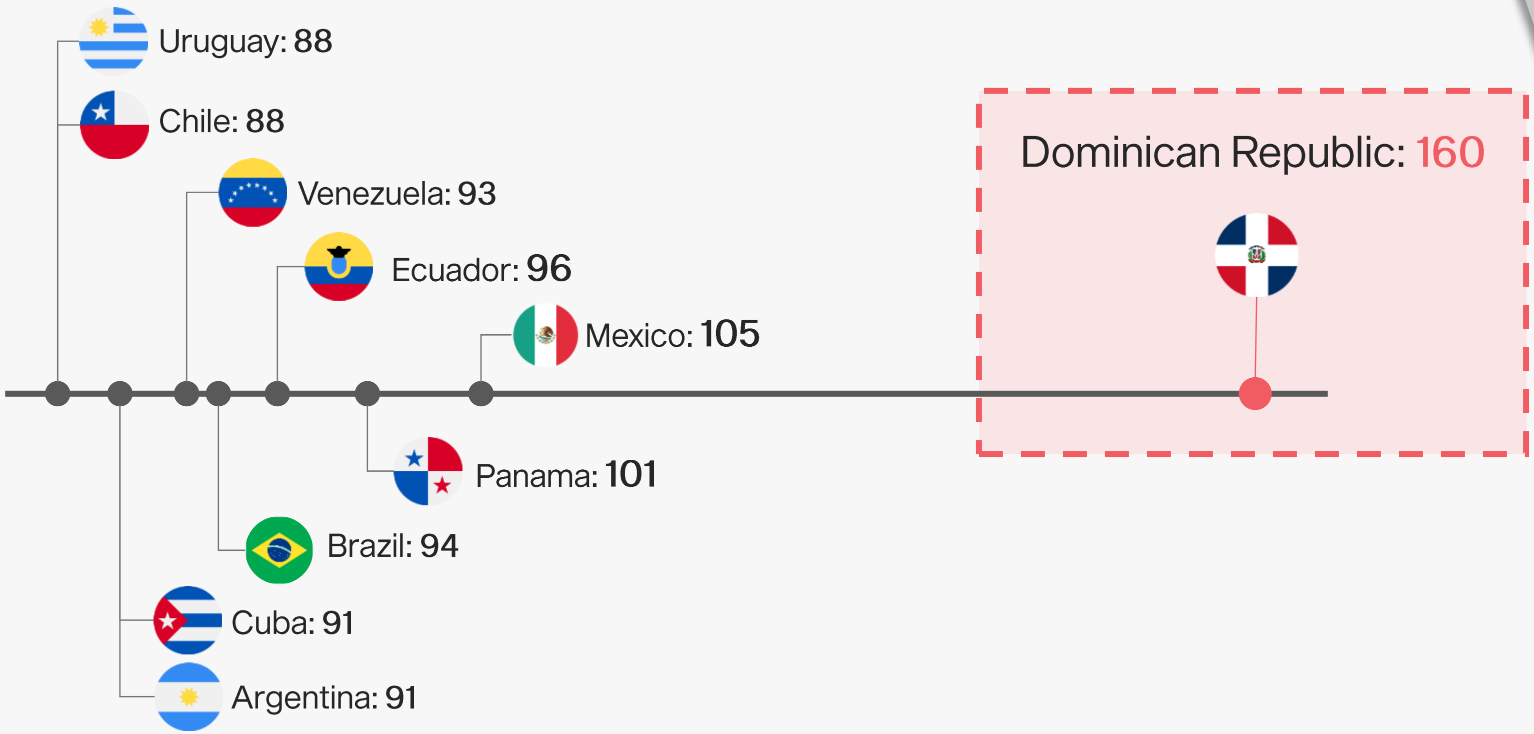
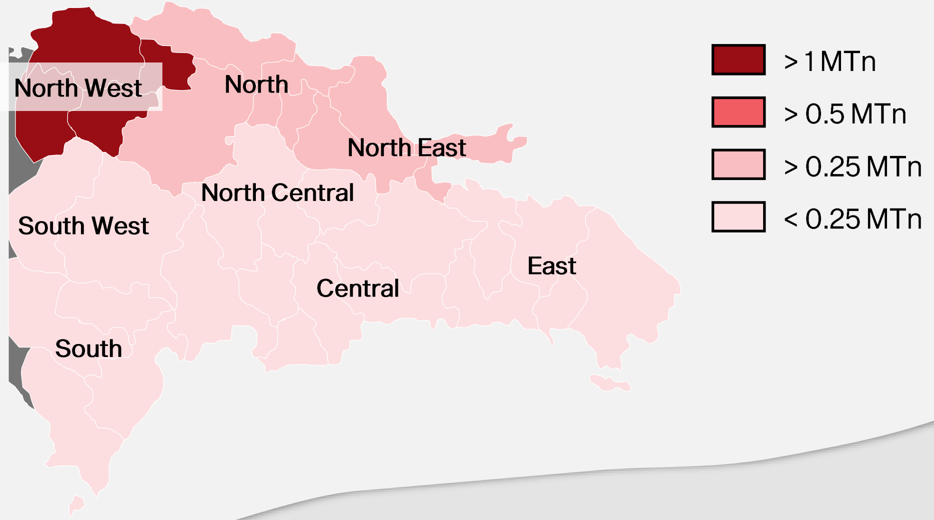
Food waste in LatAm *(Kg per capita)*

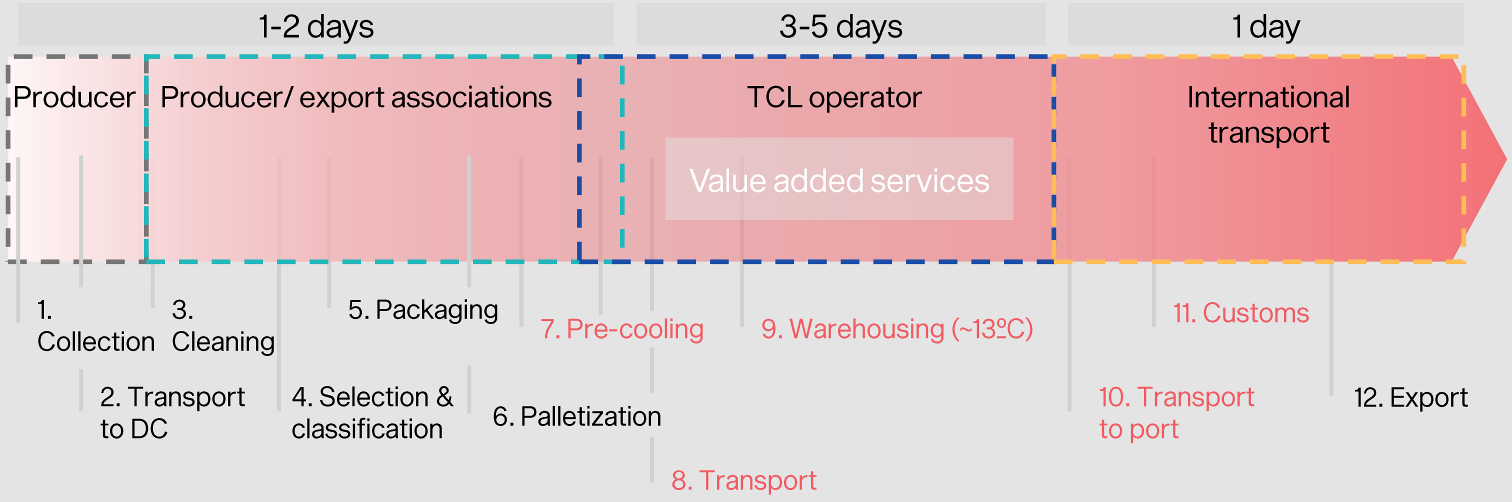


Source: UNEP

Dominican Rep. fruit export chain is still inefficient

Guinea production (2023)





7. Pre-cooling of products to slow down its maturation is not a widespread practice

8. Land transport is not done by refrigerated trucks and is costly

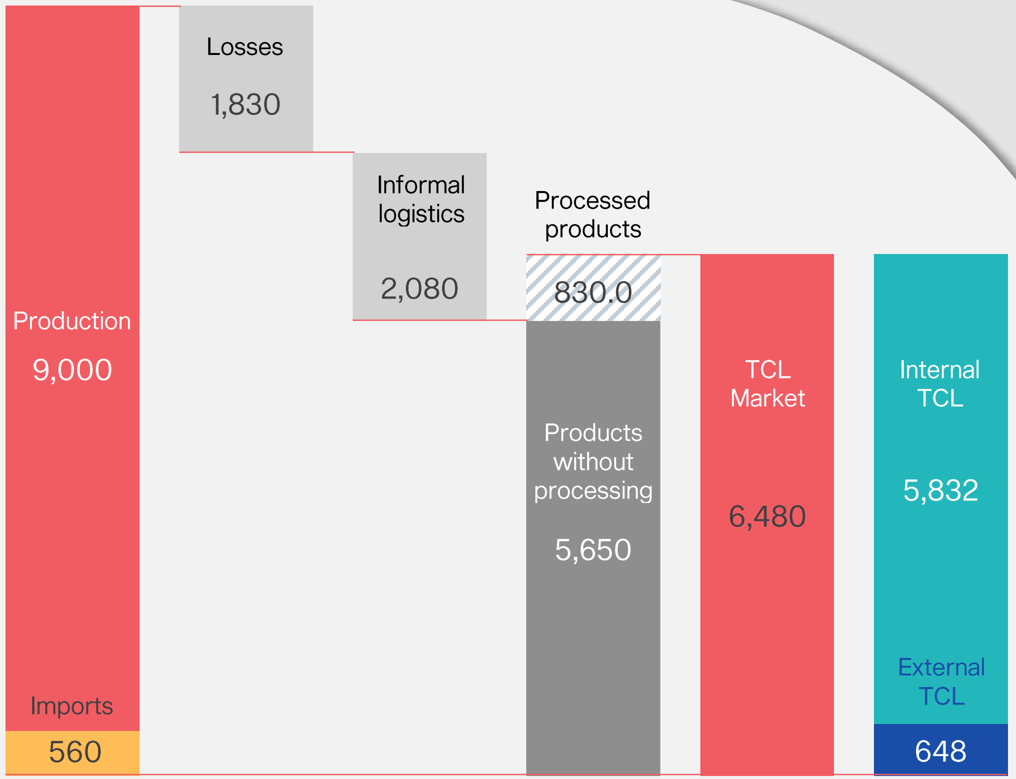
9. Scarce supply of TCL warehouses in the north of the country

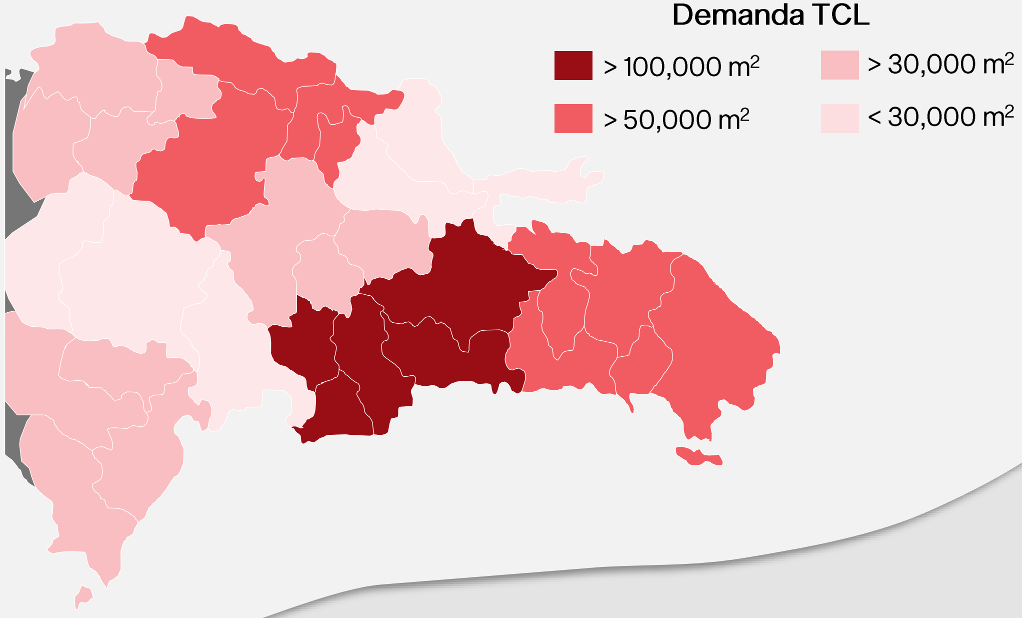
10. Cooling and preservation is usually carried out in refrigerated containers

11. Customs procedures at the Port are often lengthy and cause cargo losses

Source: ONE, DATACOMEX, ADOEXPO, ADOBANANO, Ministerio de Agricultura, BID, Calidad Alimentaria

The TCL market in Dominican Republic is estimated at 6.5 Mn Tn





	Tn	m^2
Fruits & vegetables	4,700 k tn	270,000 m^2
Fishery	80 k tn	6,500 m^2
Meat	600 k tn	41,000 m^2
Dairy	1,00 k tn	68,000 m^2
	6,500 k tn	~390,000 m^2

Source: BID, ONU, FAO, DATACOMEX, ONE, Alhambra

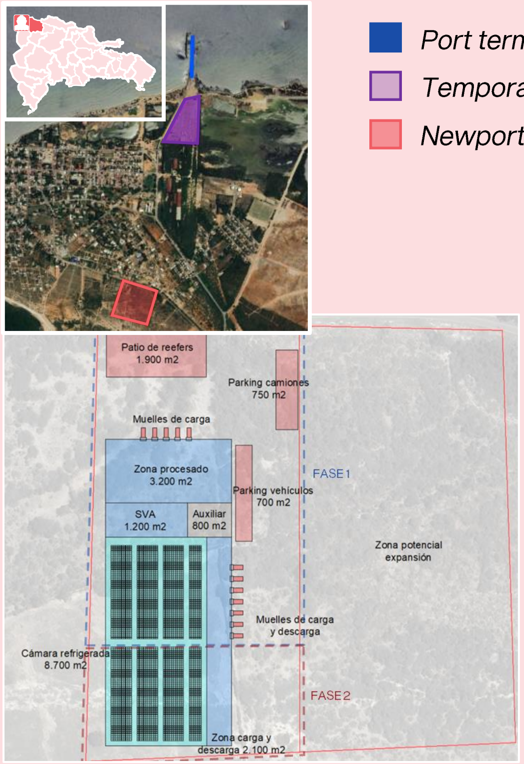
There is a limited TCL offering, mainly in the northern region, limiting the export potential

Main TCLs in Dominican Republic

	Area (m^2)
ALFRIDOMSA	6,150
Mercafrio	5,000
MARDOM	1,000
CONGELASA	3,200
C	2,000
FRIOBOX	6,4800
ALMAFRIO	2,340
RANNIK	1,700
	6,500
	~35.000 m^2

Current TCL installations offering represents <10% of the demand

Most TCL installations are in the southeastern region, with only a small area serving the north



- *Port terminal Puerto Manzanillo*
- *Temporary reefer storage*
- *Newport Manzanillo*

A new offering in the northern region would boost exports

By 2035

~9,000 m^2

~500 kTn

Services offered

Storage services	Added value services		
Refrigerated and frozen storage	Pre-cooling	Traceability	Washing and de-stemming
Quarantine storage	Packaging	Cross-docking	Certification
Consolidation and deconsolidation	Sorting	Quality control	Inventory control
Quarantine zone and free zone	Customs services	Inventory control	Palletizing

Quality of services

Quality and design: Class C – Class A

Demand adaptability: Low – High

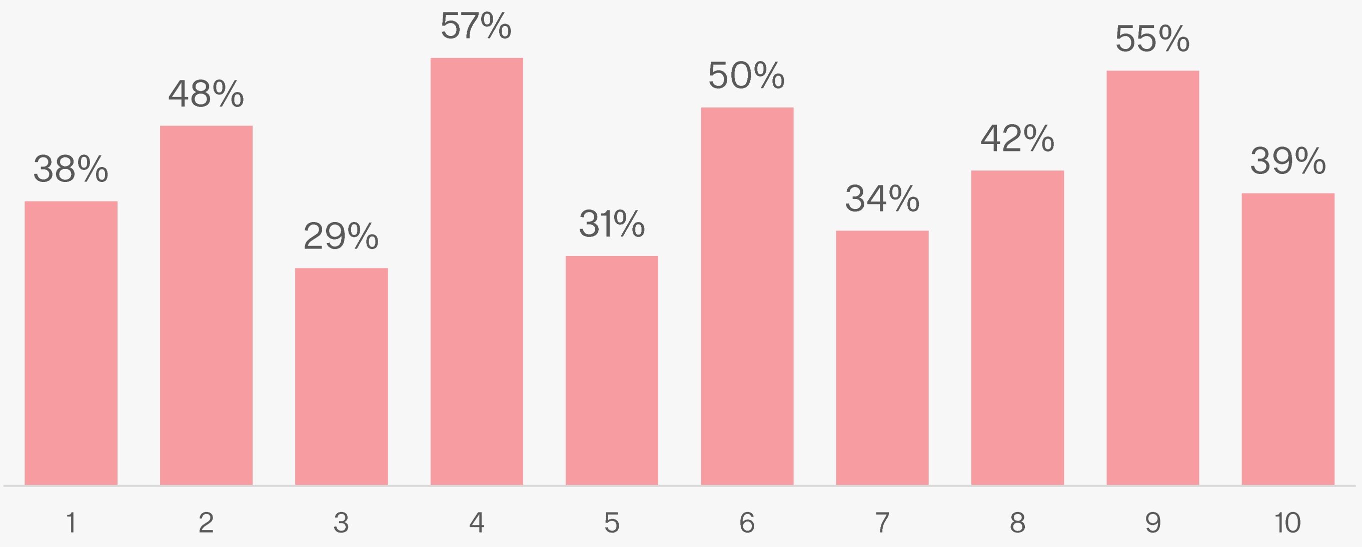
Flexibility: Tailored – Modular

IT and automation: Manual – Automated

Attractive EBITDA margins

	Service	EBITDA margin
3PL	Transportation	Very Low (~5%)
3PL	Warehousing	Low (10-15%)
3PL	Cross docking	High (20-30%)
3PL	Other 3PL added value services	High (20-30%)
TCL	TCL service	High (30-60%)

EBITDA margin – LatAm benchmark *(%)*



Source: Companies' financial statements

Main takeaways

1. TCL is still in an early stage in LatAm, where waste and informal logistics are responsible for a significant portion of the production
2. More and more, investments in TCL market are being carried out, either by funds, logistic operators or port operators among others, although there is large gap yet to be closed
3. The TCL market in LatAm shows solid and stable strong EBITDA margins of 30-60%, which increases the appetite of the private sector in this healthy growing market

LatAm exporters will benefit from the booming of the TCL sector, thanks to the increase of their competitiveness in a globalized market

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Ibai Erdozain
Ibai.erdozain@alhambraadvisors.com