



村の精米所ビジネス事業化検証

2023年1月

商船三井ケニア国代表／KiliMOL代表 大山 幹雄



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<参考> 商船三井・アフリカビジネス

1. KiliMOL概要

自己紹介（大山 幹雄）

2004年4月に新卒で商船三井に入社。



人事方針は「ジョブローテーション」（＝様々な部署に配属される）

- ・営業部：ばら積み船、原油タンカーの運航・営業・引き合い
- ・財務部：船舶の資金調達（プロジェクトファイナンス等）
- ・経営企画部：決裁の審査、採算評価制度立案、働き方改革
- ・外地駐在：ロンドン・シンガポール（合計4年）



2019年秋に「新規事業提案制度」が新設。応募して審査を通過後、2020年4月から1年間の事業化検証（ケニア出張2回）



2021年4月「越境ECサイトを活用したアフリカへの農機輸出事業」として事業化し、社内ベンチャーとして、KiliMOL(株)を5月に設立。



2022年10月より商船三井ケニア国代表としてケニアに正式赴任。ケニアに現地法人MOL Shipping (Kenya) Ltd.を設立。KiliMOL事業と商船三井グループの事業開発に取り組んでいる。



KiliMOL・唐沢農機サービスの概要



Kilimo = スワヒリ語で「農業」の意味

会社名	KiliMOL株式会社（読み：キリモル）
所在地	〒105-8688 東京都港区虎ノ門2-1-1
代表者	大山 幹雄 https://8card.net/virtual_cards/1cz5OvYV1TdX_2xhCP7ONQ
ケニア拠点	ナイロビ・ムエア・アヘロ （商船三井現地法人MOL Shipping (Kenya) Ltdが業務受託）
設立	2021年5月
事業内容	越境ECサイトを活用した農機の販売・輸送事業
株主	商船三井100%
ホームページ	https://www.kilimol.net

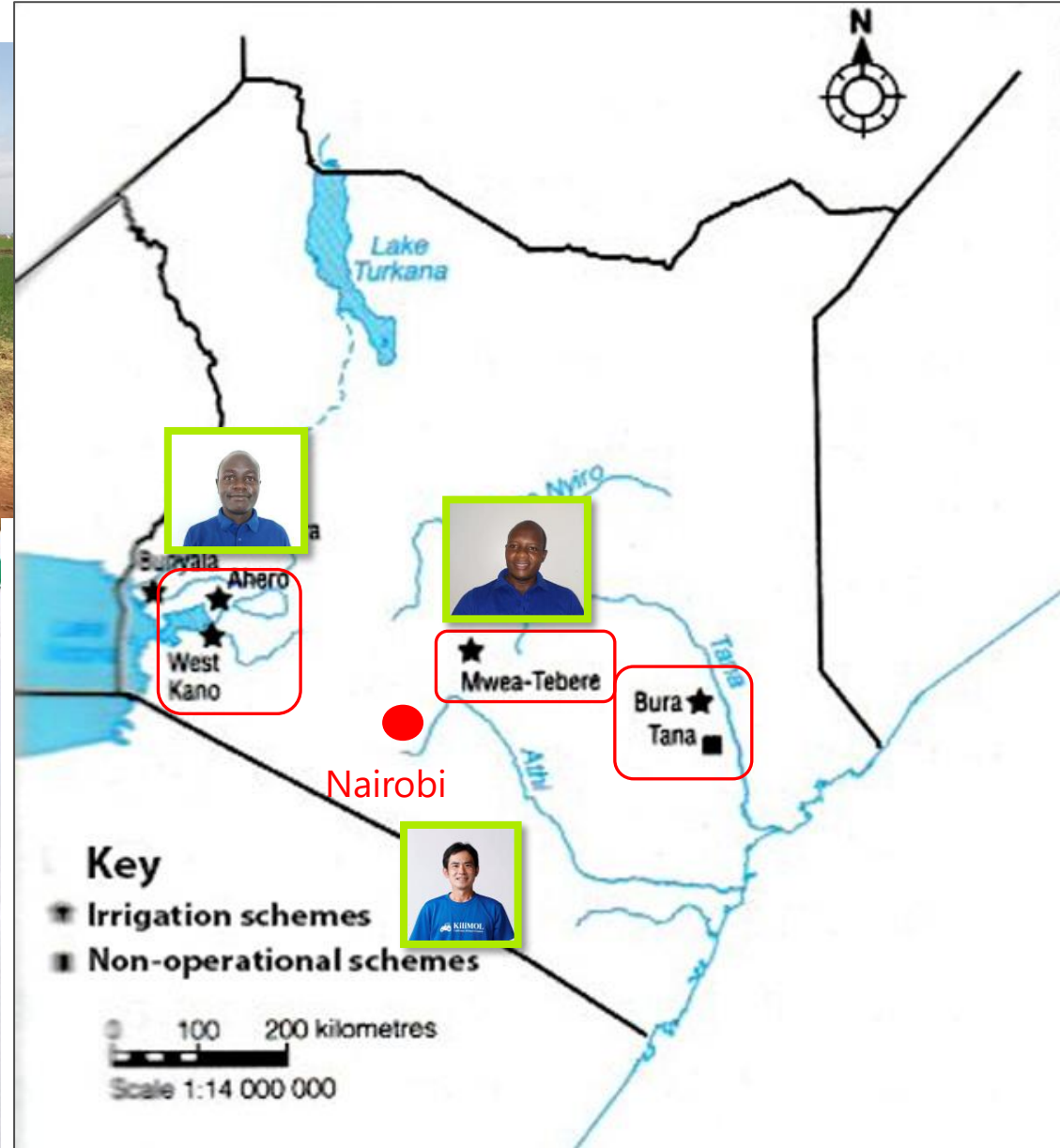


会社名	株式会社唐沢農機サービス
所在地	〒389-0518 長野県東御市本海野1642
代表者	唐澤 健之
設立	2007年
事業内容	農業機械販売・農業機械修理・農業機械再生・コイン精米機運営・インターネット事業（WEBコンサルティング・マーケティング支援・農機流通支援サイト・ECサイト・情報メディア運営）
ホームページ	https://www.karasawanouki.co.jp/
販売サイト	https://www.noukinavi.com/

KiliMOL ムエア拠点



現地での活動の様子

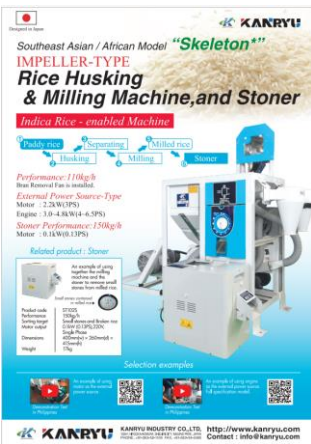


2. プロジェクト概要

プロジェクト概要

農林水産省の補助事業プログラム名	アフリカ等の企業コンソーシアムによるフードバリューチェーン構築実証事業
提案プロジェクト名 (通称)	ケニアでの小規模精米所ビジネスの事業化検証プロジェクト (村の精米所ビジネス事業化検証)
現地の課題	精米分野において、路上での天日干しによる石や塵の混入、水分量の偏りによる碎米の発生、海外（主に中国）から大型の精米機が導入されているものの、施設の老朽化による品質の低下や精米施設数が少なく偏在しているために、生産された米が他国へ流出しているケースや、小規模農家自らが自家消費分の米を十分に確保できていない（米の自給率20%以下）
対象地域	・ムエア：ケニア最大の灌漑地域（ケニアの米の生産量の約60%を生産） ・アヘロ：ビクトリア湖周辺のケニア第2の灌漑地域
企業コンソ（日本側）	唐沢農機・商船三井
現地パートナー (ケニア側)	KAI GLOBAL LTD.（ナイロビで日本食レストラン経営、コシヒカリ生産） KiliMOL LTD.
取り扱い製品	カンリウ（KANRYU）製 小型精米機・石抜き機

小型精米機 (SKELTON A-1) & 石抜き機 (ST102S)



Performance: 110kg/h

Bran Removal Fan is installed.

External Power Source-Type

Motor : 2.2kW(3PS)

Engine : 3.0~4.8kW(4~6.5PS)



An example of using together the milling machine and the stoner to remove small stones from milled rice.

Small stones contained in milled rice ▶



Product code
Performance
Sorting target
Motor output

ST102S
150kg/h
Small stones and Broken rice
0.1kW (0.13PS), 220V,
Single Phase

Dimensions

400mm(w) × 260mm(d) ×
415mm(h)

Weight

17kg

3. 現地での様子



現地での組み立て

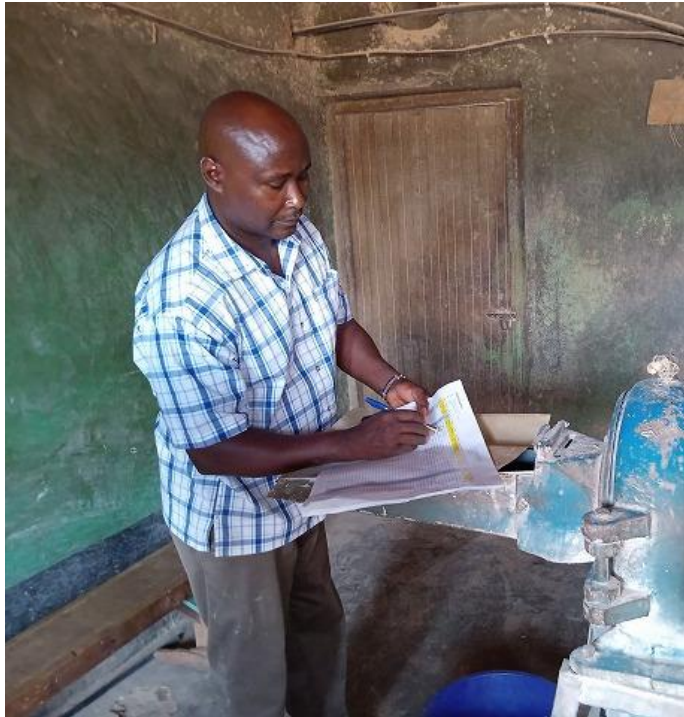


実証場所での据え付け・使用方法説明



パフォーマンス確認





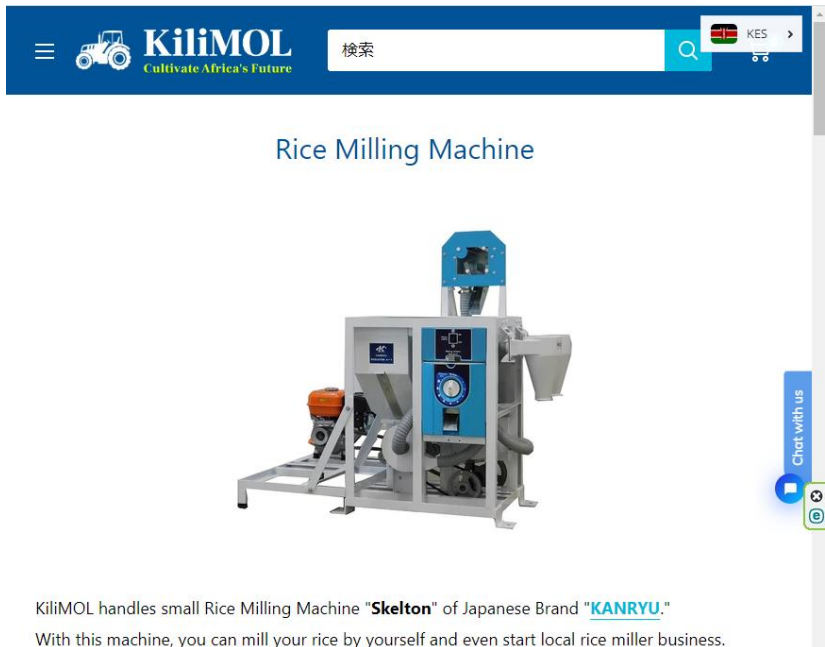
Milling Machine Usage Record

Name: John Mwezi
Address: MUSKELIWA DISTRICT
Month: Oct. 2022

Fill in the details of the mill for each use and fill in the amount of flour produced. The mill will be used for the following purposes:

For the purpose of the mill, the flour will be used for:

Date	From (kg)	To (kg)	Batches	For Type of Customer	Customer Name	Address to Mill	Distance from Mill	Milling Time (min)	Milling Rate (kg/hr)	Milling Cost (TZS)	Milling Fee (TZS)	Milling Total (TZS)	Total Flour (kg)	Customer Name
10/01/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/02/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/03/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/04/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/05/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/06/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/07/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/08/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/09/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/10/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/11/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/12/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/13/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/14/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/15/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/16/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/17/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/18/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/19/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/20/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/21/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/22/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/23/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/24/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/25/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/26/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/27/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/28/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/29/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/30/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi
10/31/2022	1000	800	1	For Sale	John Mwezi	1000	10	100	1000	1000	1000	1000	800	John Mwezi



Kilimol handles small Rice Milling Machine "Skelton" of Japanese Brand "KANRYU."
With this machine, you can mill your rice by yourself and even start local rice miller business.



<Specification>

- Model : SKELTON A-1
- Capacity : 110kg/hour
- Function : Husking from Paddy Rice & Rice Milling from Brown Rice
- Husking : Impact method by impeller
- Milling : Friction method
- Bran removal : Suction fan system
- Engine Output : 3.0 - 4.8 kW (4.0 - 6.5 HP)



<参考>

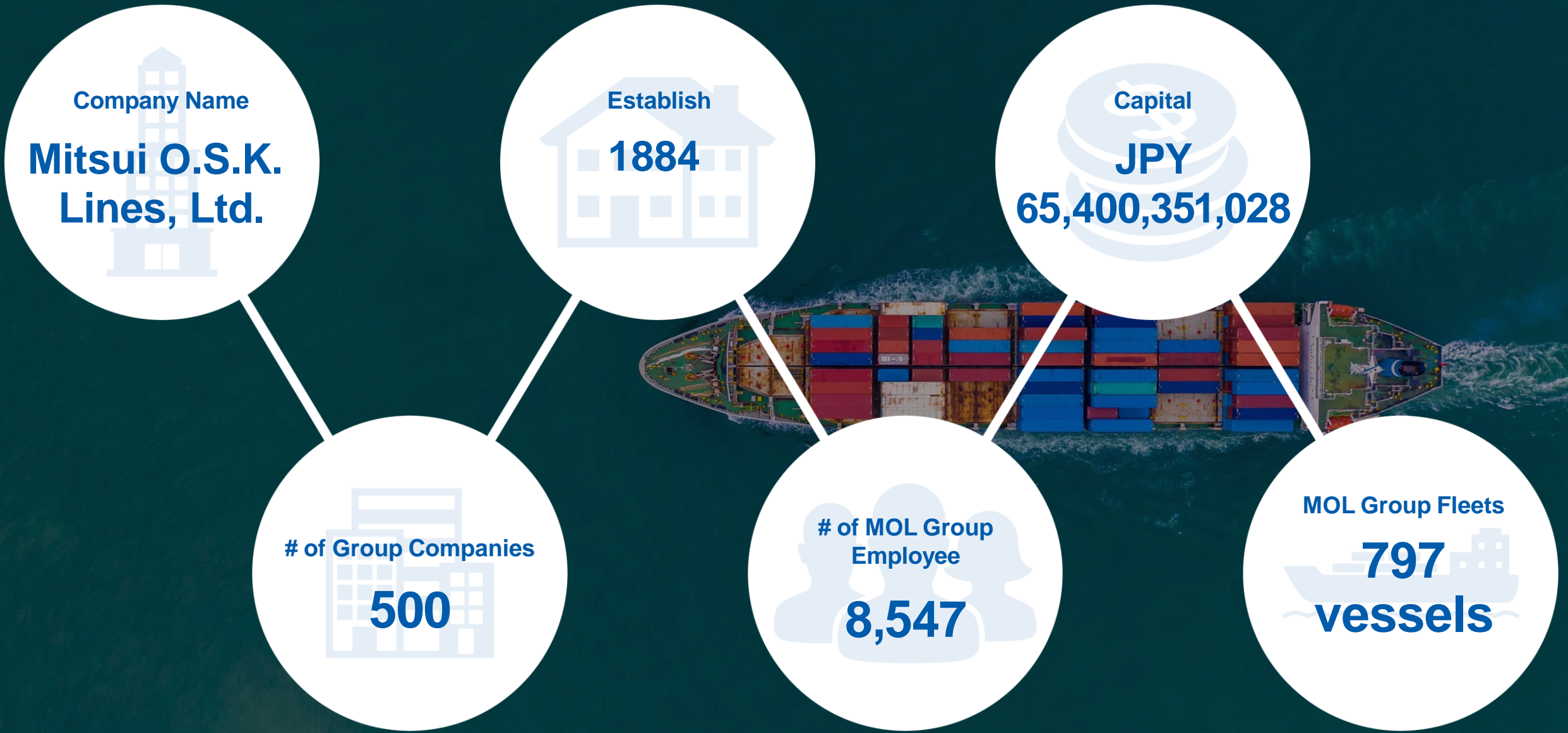
商船三井・アフリカビジネス

Mitsui O.S.K. Lines Corporate Video "Voyage to the Future"



<https://www.youtube.com/watch?v=at4aVsP1FcU&t=9s>

1. MOL Overview



1. MOL Overview

Dry Bulker



Tanker



LNG Carrier



Offshore Biz



Car Carrier



Containership (by ONE)



Terminal



Logistics



Cruise Ship



Ferry & Costal RoRo



Associated Biz

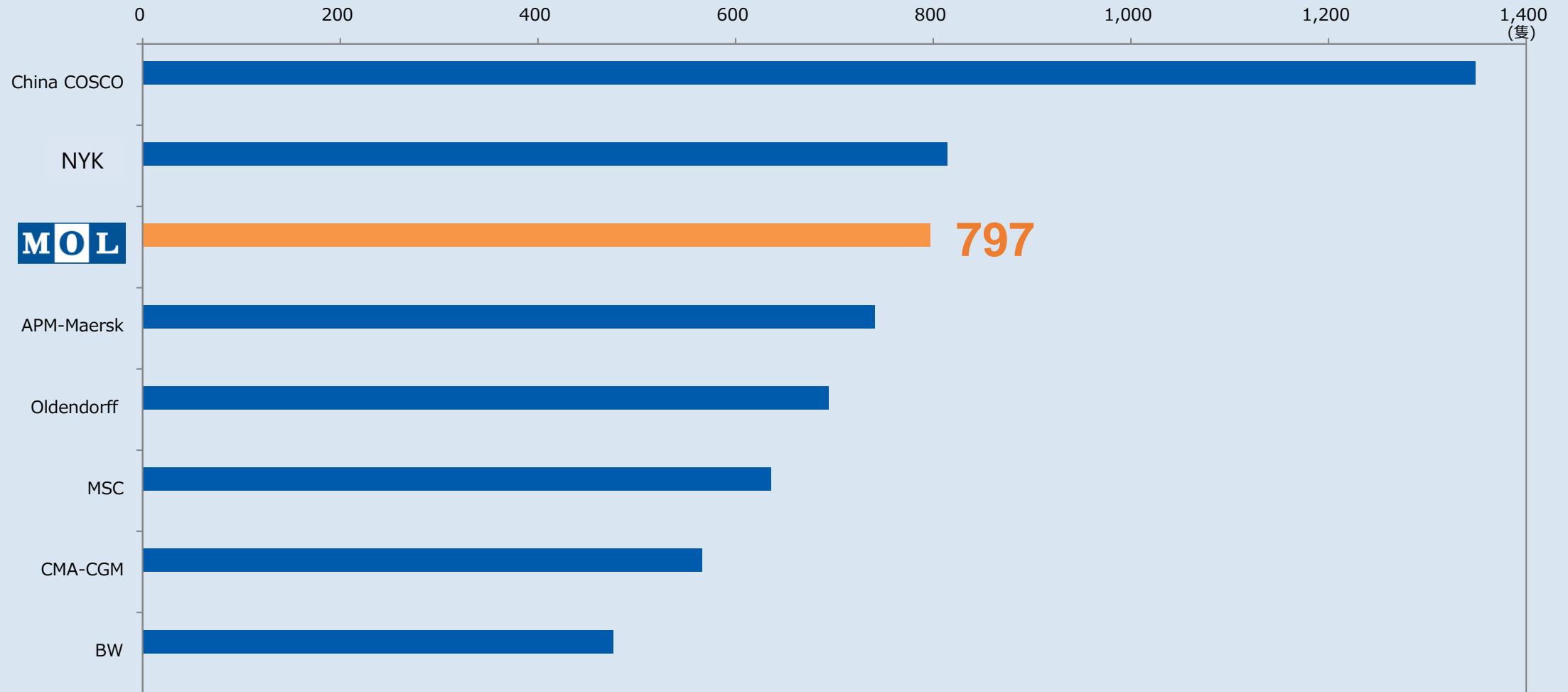


Technology

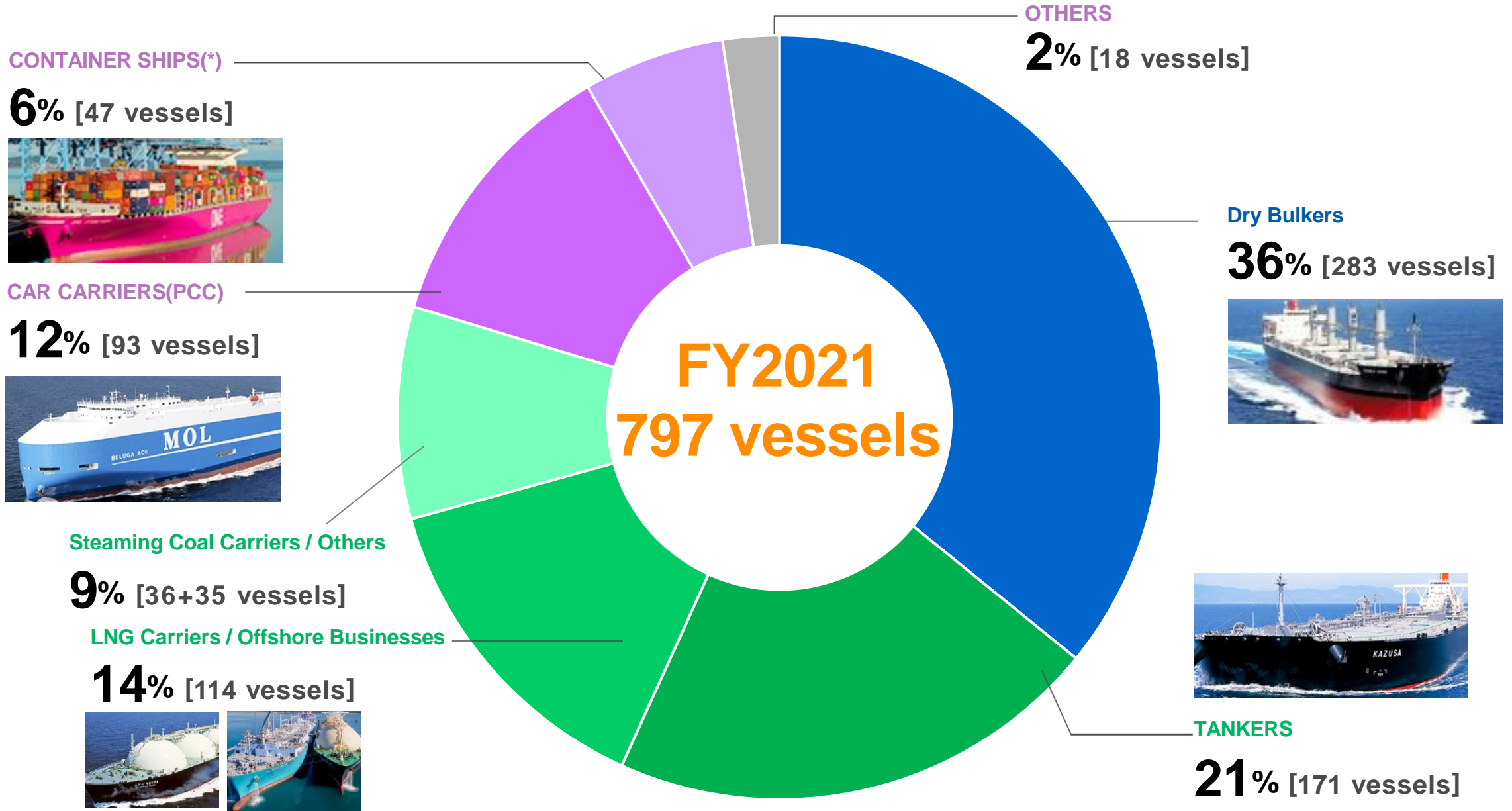


1. MOL Overview (Market Position in the Industry)

MOL ranks among the world's top class shipping companies



1. MOL Overview (Fleet Breakdown by Vessel Type)



(*)Japanese three shipping companies including MOL integrated their container service under Ocean Network Express(ONE) brand after Apr, 2018. (as of March, 2022)

1. MOL Overview (Global Network)

MOL set “Chief Country Representative” in major countries & regions



1. MOL Overview (Group companies)

More than 40 countries, MOL group companies support your business.



1. MOL Overview (Various MOL Group Services)



Containership (by ONE)



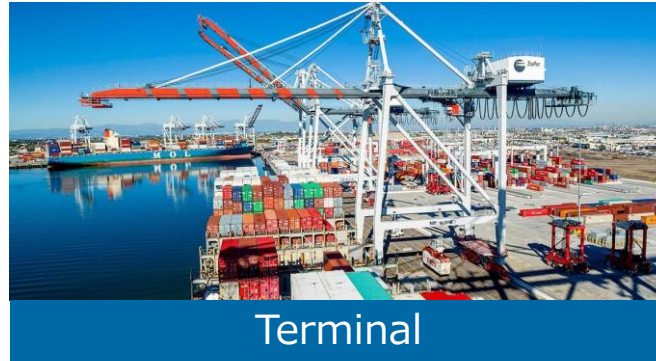
Cruise Ship



Ferry & Costal RORO



Tugboat



Terminal



Logistics



Real Estate



Mission Vision

Mission

**From the blue oceans,
we sustain people's lives and ensure a prosperous future.**

Vision

We will develop a variety of social infrastructure businesses in addition to traditional shipping businesses, and will meet the evolving social needs including environmental conservation, with innovative technology and services.

MOL group aims to be a strong and resilient corporate group that provides new value to all stakeholders and grows globally.



MOL Our Values CHARTS

C

hallenge / Innovate through insight

H

onesty / Do the right thing

A

ccountability / Commit to acting with a sense of ownership

R

eliability / Gain the trust of customers



T

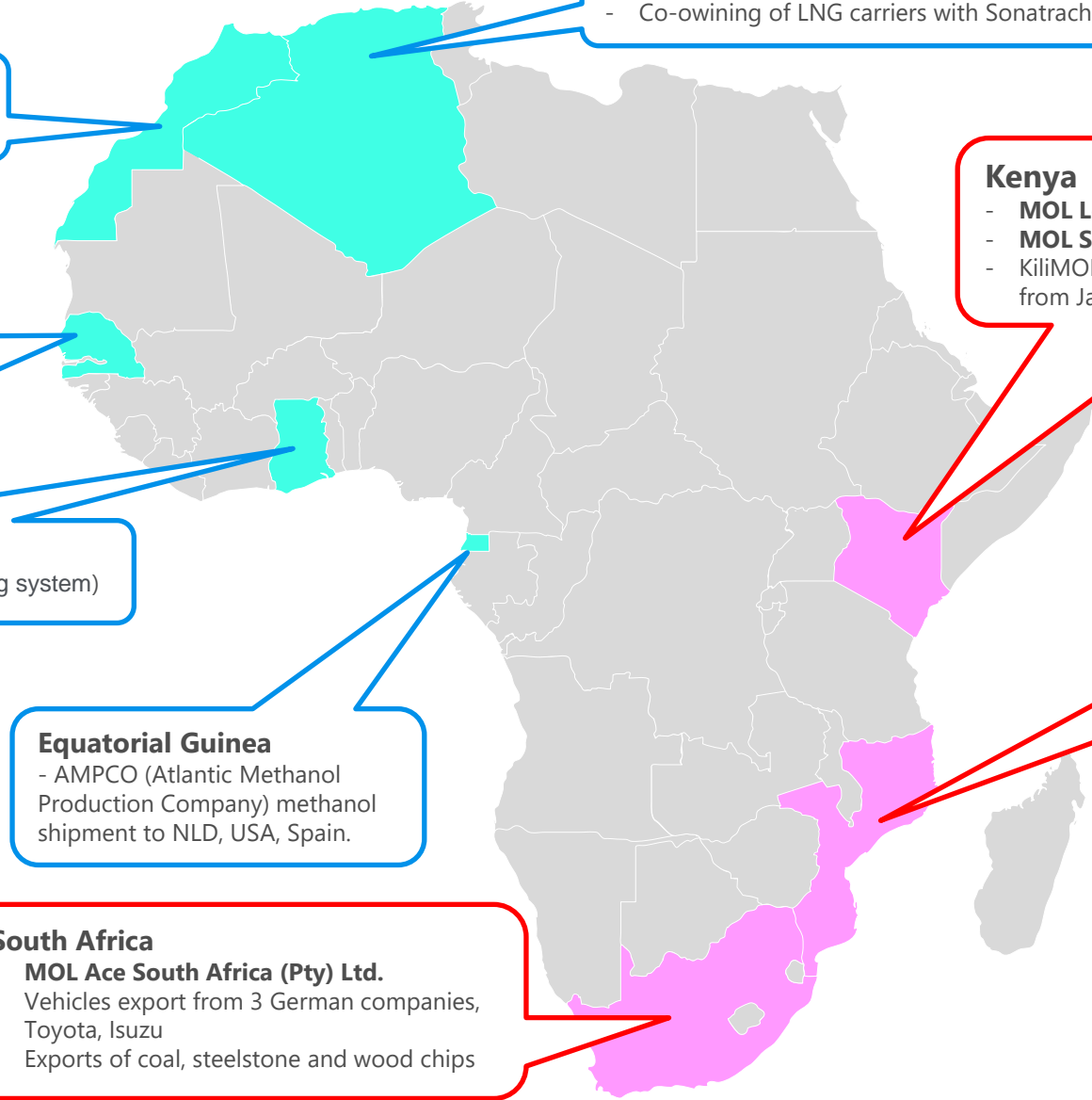
eamwork / Build a strong team

S

afety / Pursue the world's highest level of safety culture

Activity Map of Africa

-  Home of the MOL Group
-  No MOL Group offices



Morocco
- Renault : Vehicle Export

Algeria
- Co-owning of LNG carriers with Sonatrach

Senegal
KARMOL: LNG-to-Powership project by FSRU & Powership
(FSRU: Floating Storage and Regasification Unit)

Kenya
- MOL Logistics Nairobi Branch
- MOL Shipping (Kenya) Ltd.
- KiliMOL: Import of Agricultural Equipment from Japan

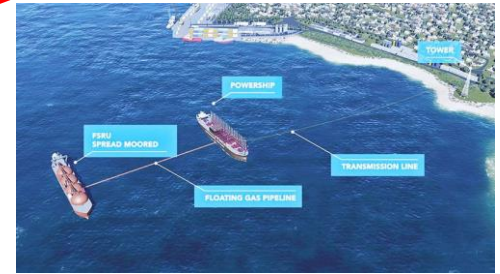
Ghana
- FPSO (Floating Production, Storage and Offloading system)

Mozambique
- MOL (Europe Africa) Ltd. Mozambique Representative Office
- Mozambique LNG: LNG carrier
- KARMOL: LNG-to-Powership project by FSRU & Powership (FSRU: Floating Storage and Regasification Unit)

Equatorial Guinea
- AMPCO (Atlantic Methanol Production Company) methanol shipment to NLD, USA, Spain.

South Africa
- MOL Ace South Africa (Pty) Ltd.
- Vehicles export from 3 German companies, Toyota, Isuzu
- Exports of coal, steelstone and wood chips

Mauritius
- MOL (Mauritius) Ltd.
- "MOL Charitable Trust" in Mauritius Providing support to local environment and communities in Mauritius
- Bombora wave power generation survey



Transport of Vehicles from Far East / India / UAE to Tanzania



**MOL is World No.1
Vehicle Transporter to Tanzania**



MOL is World No.1 carrier of vehicles to Tanzania

- **From Far East :** In 2022, we have transported 70,000 units of passenger cars, buses and construction machinery to Tanzania till Nov 2022 (about 6,000 vehicles per month) with our 3.3 ships calling per month. About 6,000 vehicles per month from Far East are discharged at Dar es Salaam Port. Most of them are used cars (98%).
- **From UAE / India :** In 2022, we transport about 6,000 units / year of passenger cars, trucks, busses and construction machinery with 1 shipment from UAE, 1-2 shipments from India per month.

Shipping & Marine Business in Africa

RORO

Overview	① Transport of vehicles from Japan, China, India, etc. ② Transport of vehicles from South Africa and Morocco
Country	all of Africa



FSRU

Overview	Floating Storage and Regasification Unit
Country	Senegal, Mozambique



Power Generation Ship

Overview	LNG transport
Country	Senegal, Mozambique



LNG carrier

Overview	LNG transport
Country	Algeria, Mozambique



FPSO

Overview	Floating Production, Storage and Offloading system
Country	Ghana



Bulker

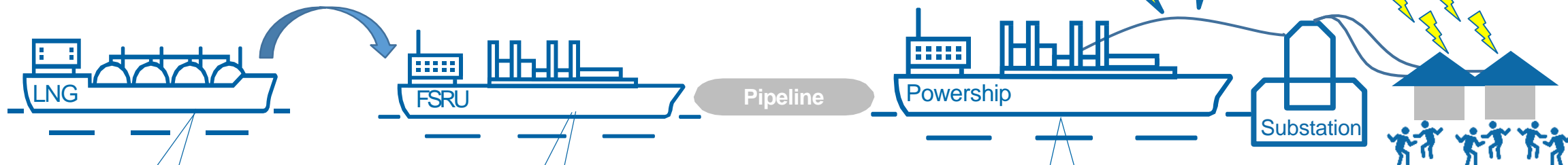
Overview	Transport of steel products from Japan
Country	East Africa



LNG to Powership Solution



LNG Ship-to-Ship Operation



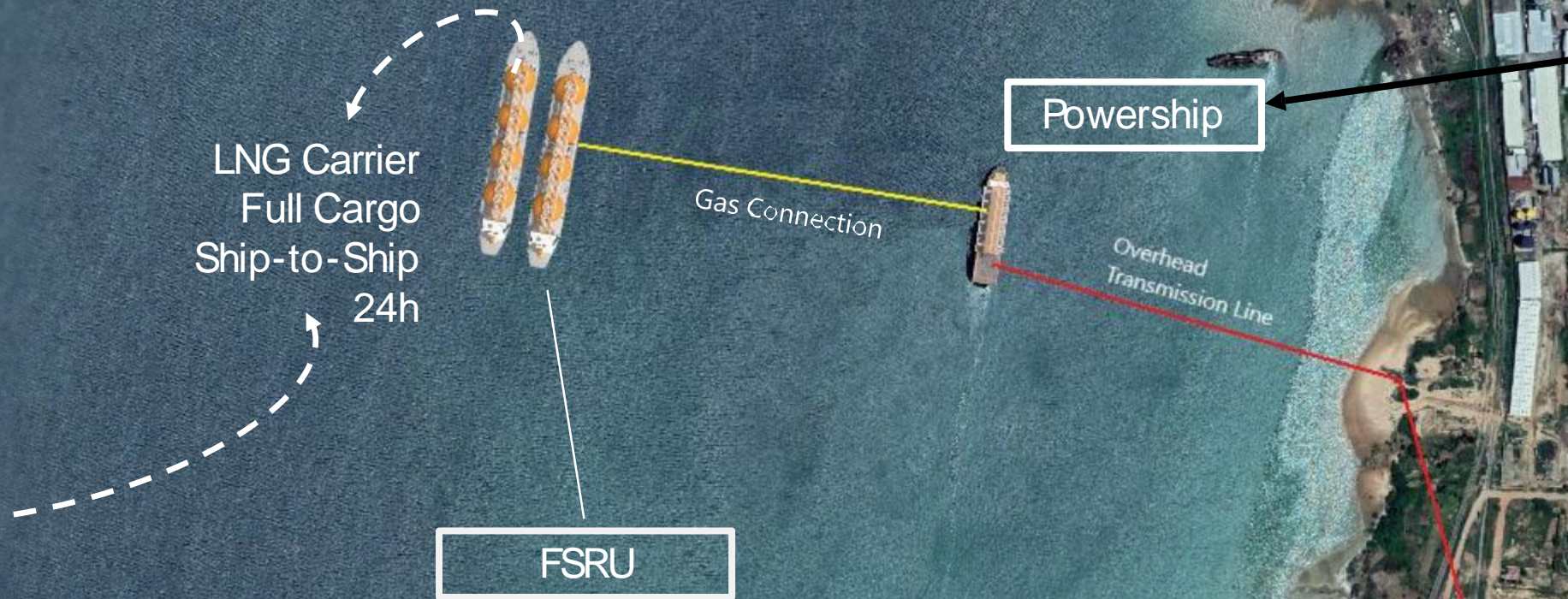
Deliver LNG to FSRU

Regasify LNG on FSRU

Generate electricity on Powership

Off-taker
Provide electricity to households

Mozambique Project Layout



- LNG Storage Capacity - 125,000 m³
- Moss type cargo containment system
- LNG Carrier for supply in every 4-6 months
- Cargo transfer: flexible hoses, Ship-to-ship basis

Network Middle East & Africa



✓ Kenya office handles rest of Africa through wide range of network across Africa.

- ✓ Highly compliant
- ✓ Reliable partner in Africa
- ✓ Regional expertise
- ✓ Japanese company