



## 港航业的发展趋势以及对港口运营商的影响

### **Trends in the Shipping and Ports Industries and the Implications for Port Operators**

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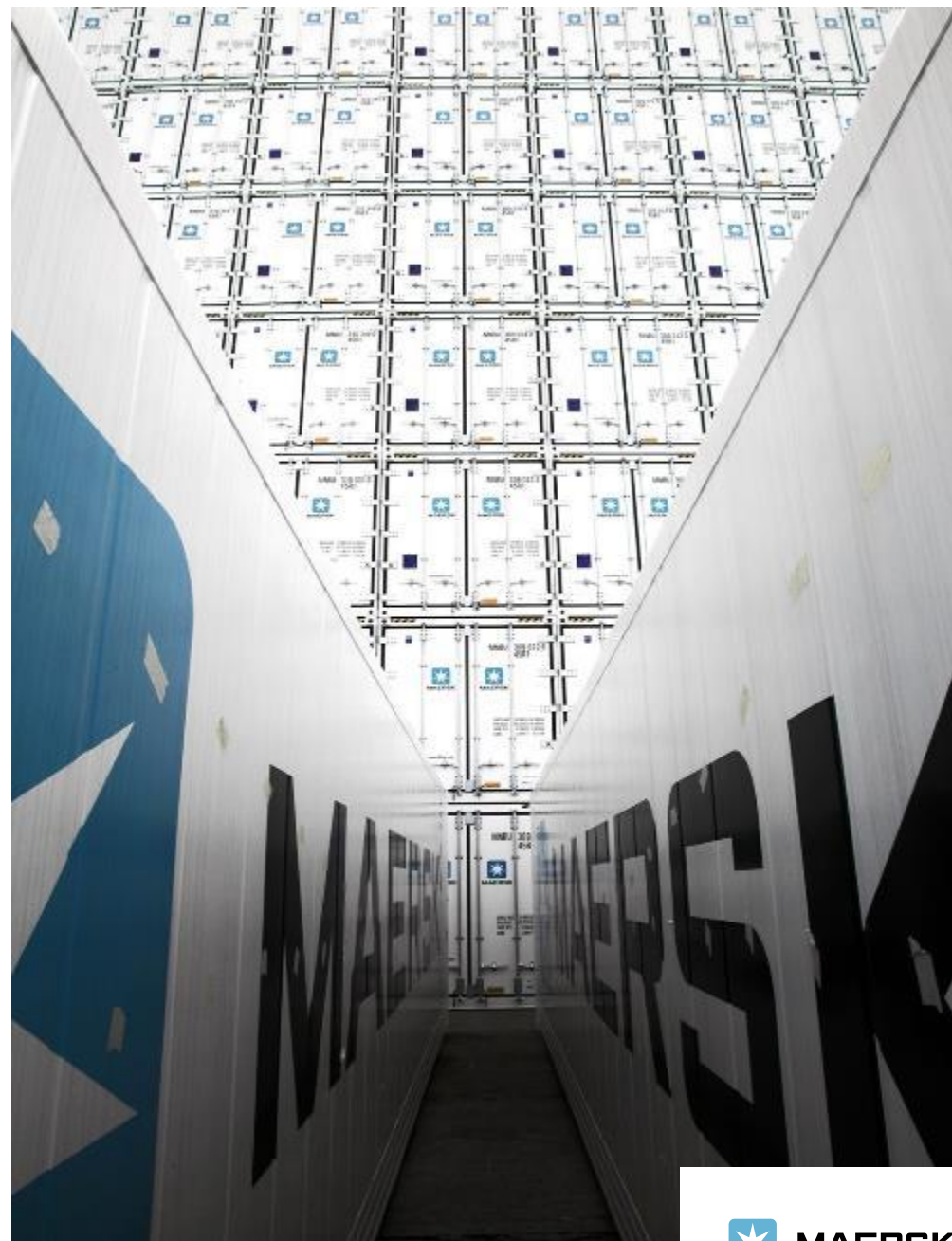
### Trends in the International Shipping Industry

- 市场展望 Market outlook
- 班轮公司整合/联盟 Liner consolidation / alliances
- 价值链扩展 Value-chain expansion

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### Trends in the International Port Industry

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- 对港口运营商的影响和启示  
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- 对于自动化的一些想法  
Some thoughts on automation



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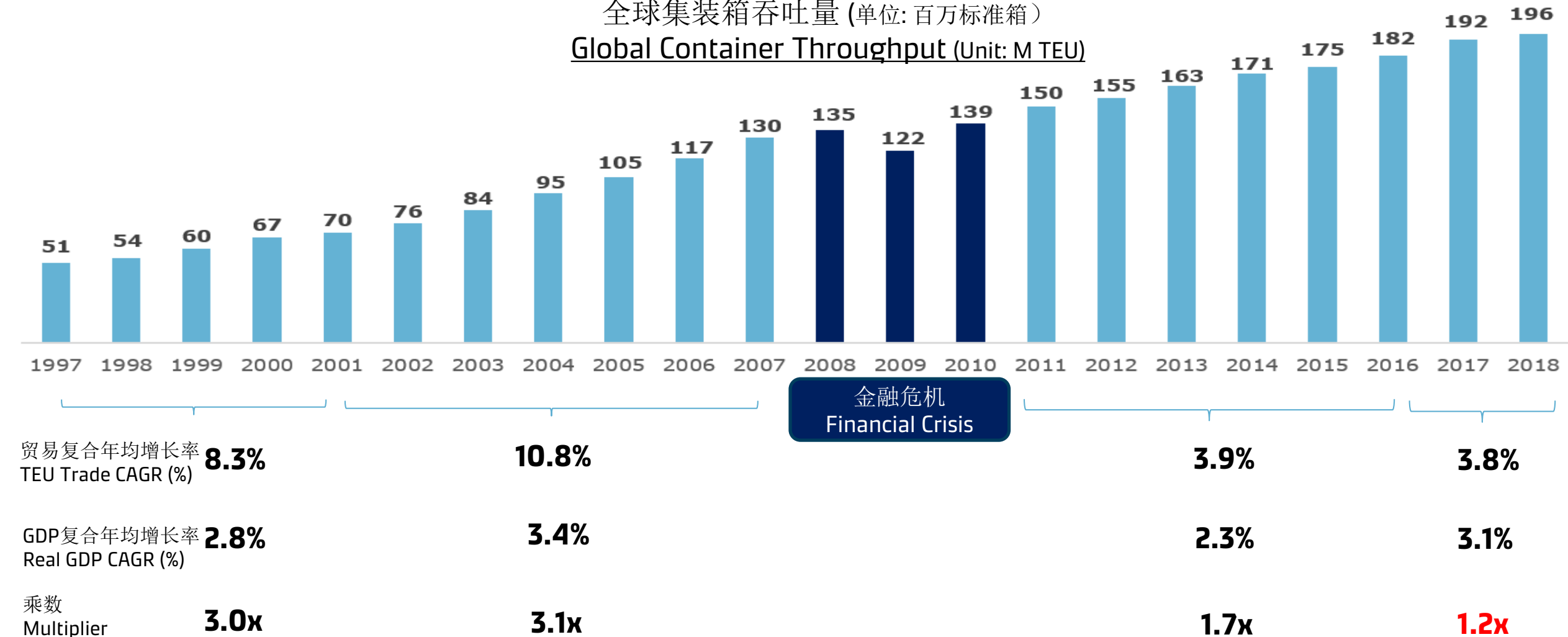
# 1. 国际航运业的发展趋势

## Trends in the International Shipping Industry

由于全球化放缓导致国内生产总值和集装箱增长倍增效应减弱

## Diminishing GDP-container growth multiplier effect due to slowdown of globalization

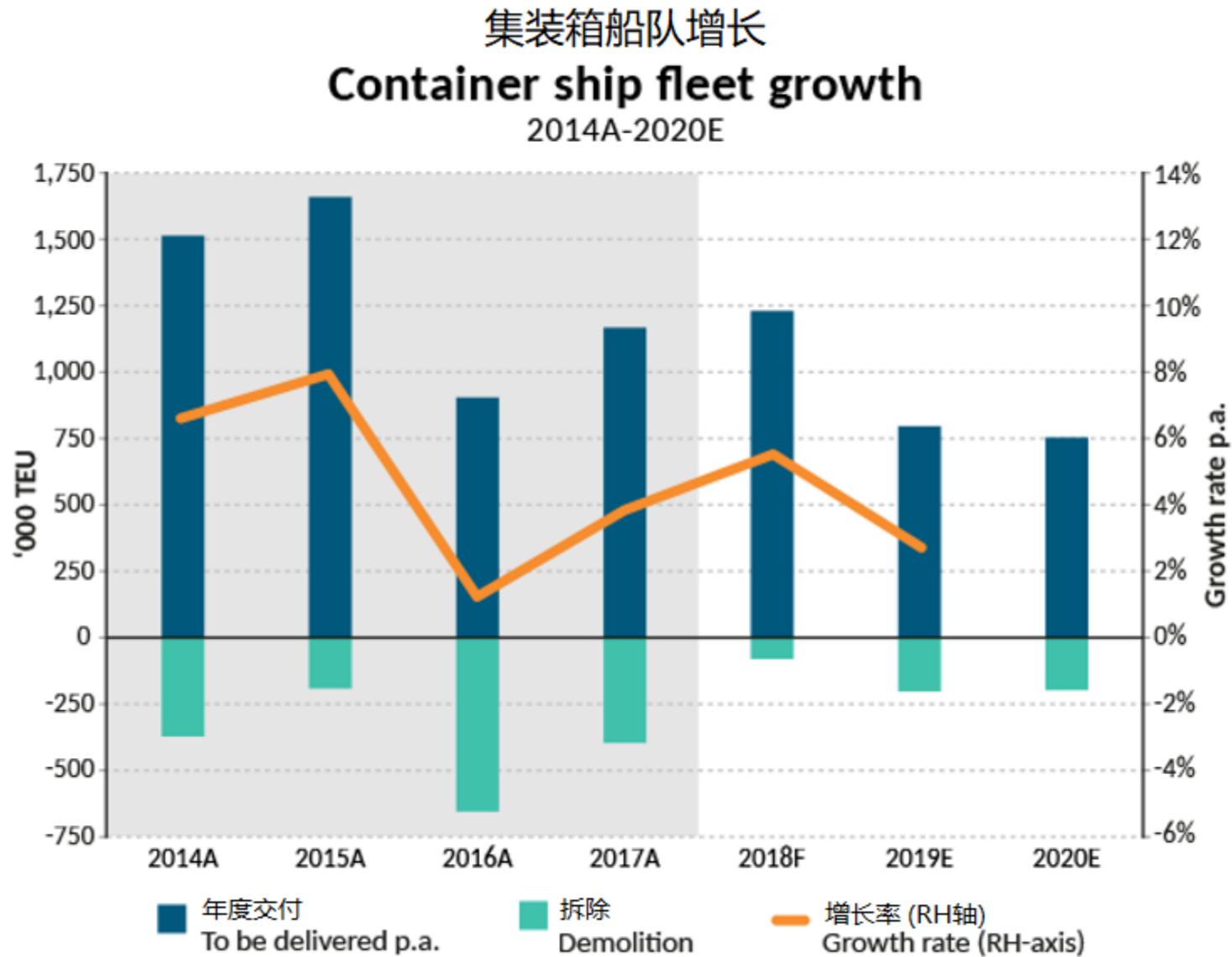
全球集装箱吞吐量 (单位: 百万标准箱)  
Global Container Throughput (Unit: M TEU)



(来源Source: Alphaliner / World Bank)

除需求疲软外，供大于求仍是集装箱航运业面临的挑战

**Besides weak demand, oversupply remains a challenge for container shipping industry**



(来源Source: JOC.com and BIMCO Research)

因此，尽管2018 - 2019年间全球运费有所稳定，但总体仍呈下降趋势

**As a result, global freight rates have trended down although they have stabilised somewhat in 2018-19**




















中国集装箱运价指数  
*China Containerized Freight Index*














(来源Source: Shanghai Shipping Exchange)

由于合并、收购和破产等原因，过去几年班轮公司的数量减少近半，未来可能还会有进一步整合空间  
**At the same time, the number of container carriers has halved during past several years due to mergers, acquisitions and bankruptcies... with potentially more to come**

2012 - 全球班轮公司列表  
 Global Carriers League Table

#	Flag	Carrier	MS (%)	EBIT-Margin
1		Maersk	17%	2.7%
2		MSC	14%	-
3		CMA CGM	9%	6.1%
4		Hapag-Lloyd	4%	-3.3%
5		APL	4%	-3.1%
6		COSCO	4%	-3.3%
7		Evergreen	4%	-0.8%
8		CSCL	4%	-2.7%
9		Hanjin	3%	-1.9%
10		MOL	3%	-3.4%
11		Hamburg Süd	3%	-
12		NYK Line	3%	-2.6%
13		OOCL	3%	3.6%
14		CSAV Group	2%	-6.1%
15		K Line	2%	-1.4%
16		Yang Ming	2%	-1.5%
17		Zim	2%	-2.6%
18		HMM	2%	-4.3%
19		PIL	2%	2.9%
20		UASC	2%	-3.8%

2018 1H - 全球班轮公司列表  
 Global Carriers League Table

#	Flag	Carrier	MS (%)	EBIT-Margin
1		Maersk	19%	0.4%
2		MSC	15%	-
3		CMA CGM	12%	1.4%
4		COSCO	12%	0.5%
5		Hapag-Lloyd	7%	1.3%
6		ONE	7%	-5.8%
7		Evergreen	5%	-2.7%
8		Yang Ming	3%	-8.6%
9		HMM	2%	-16.0%
10		PIL	2%	-
11		Zim	2%	0.9%

(来源Source: Public Reports, Maersk Research)

每个班轮联盟的规模和市场覆盖范围也增加了不止一倍

The size and market coverage of each liner alliance has more than doubled as well

2012 | 联盟概览  
Summary of Alliances

Company	Asia-Europe	Trans-Pacific	Trans-Atlantic
Maersk			
MSC			
CMA CGM			
CSCL			
Hamburg SUD			
CSAV			
ZIM			
PIL			
UASC			
APL	G6 Alliance	New World	
MOL			
HMM		Grand Alliance	
Hapag-Lloyd			
NYK			
OOCL			
COSCO	CKYHE		
K Line			
Yang Ming			
Hanjin			
Evergreen			



2019 | 联盟概览  
Summary of Alliances

Company	Asia-Europe	Trans-Pacific	Trans-Atlantic
Maersk	2M Alliance		
MSC			
CMA CGM	OCEAN Alliance		
COSCO			
Evergreen			
Hapag-Lloyd	THE Alliance		
ONE			
Yang Ming			
HMM			
PIL	No		

(来源Source: Public Reports, Maersk Research)



除了整合，航运公司还专注于航运和物流的价值链扩展

**Besides consolidation, liners also focus on value chain expansion in shipping & logistics**



1. 专注于端到端物流解决方案，旨在成为全球综合的集装箱航运物流公司  
**Focuses on end-to-end logistic solutions and aims to be the global integrator of container logistics**
2. 出售马士基石油业务（75亿美金）以专注于核心业务 Sold Maersk Oil for US\$7.5B - concentrate on core business
3. 2018年和IBM合作共同开发区块链平台 (TradeLens) Partnered with IBM to develop blockchain platform (TradeLens)
4. 2019年 投资数字物流平台 (Loadsmart) 和领先的海关经纪公司 (Vandegrift) Invested in digital logistics platform (Loadsmart) and leading customs brokerage house (Vandegrift)

1. 目标是成为世界第一的航运和物流集团 **Aspires to be World's no.1 shipping and logistics group**
2. 积极发展“一带一路”沿线国内外港口的投资机会（如青岛/上海/阿布扎比/秘鲁） Actively developing domestic and overseas port investment opportunities along Belt and Road markets (e.g. Qingdao / Shanghai / Abu Dhabi / Peru)
3. 开发码头物流园区项目（如南沙） Developing terminal logistics park projecte (e.g. Nansha)
4. 2019年 投资6亿美金收购盛狮货柜 (Singamas)在中国的5个集装箱工厂 2019 - US0.6B acquisition of Singamas' 5 container factories in China

1. 陆路运输和供应链解决方案成为增长的核心驱动力 **Land route and supply chain as key growth drivers**
2. 2018年 完成对欧洲区域集装箱班轮公司的收购，为短途海运，卡车，铁路和驳船的集装箱运输提供广泛的服务 2018 - completed acquisition of intra-Europe carrier Containerships, which brings a wide range of services for container transport by short sea, truck, rail and barge
3. 2018年 在伦敦投资达飞品牌冷链仓库 Invested in CMA-branded cold chain warehouse in London
4. 2019年 投资17亿美金收购全球货运代理商基华物流（CEVA Logistics） Invested US1.7B in global freight forwarder CEVA Logistics

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## 2. 国际港口业的发展趋势

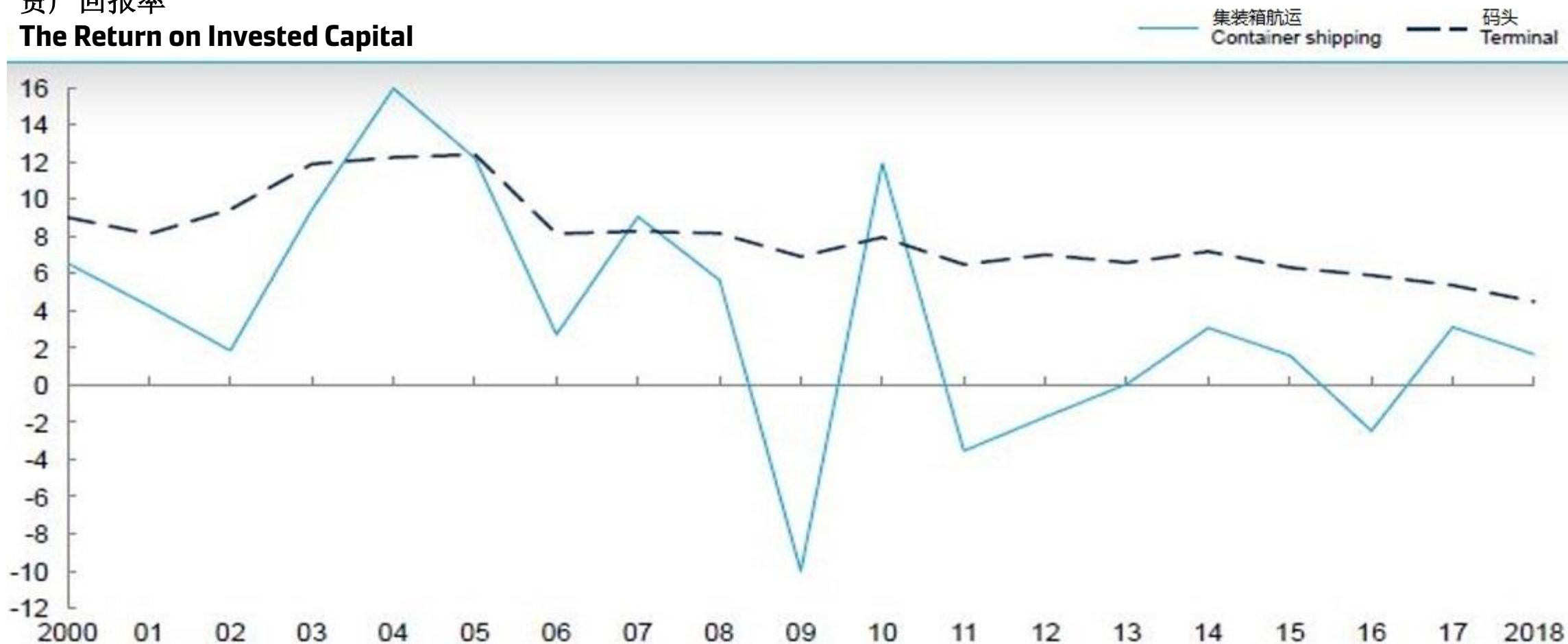
### Trends in the International Port Industry

好消息：即使集装箱贸易增长和航运费率疲软，大部分港口企业仍然盈利

**GOOD NEWS: the port industry is still largely profitable even as container trade growth and shipping freight rates weaken**

资产回报率

The Return on Invested Capital



(来源Source: Capital IQ / McKinsey Research)

# 坏消息: 港口业的发展和盈利能力将面临进一步挑战...

## BAD NEWS: stronger head winds affect the growth and profitability of port industry...

### 曾经的黄金年代 The Good Old Days (Prior to 2009)

需求增长放缓  
**Lower demand growth**

客户整合  
**Customer consolidation**

竞争激烈  
**Intensified competition**

收益递减  
**Diminishing returns**

和工会的关系  
**Union relations**

政府的角色  
**Role of Government**

年度增长率 8% growth p.a.

多家班轮公司竞争相同的码头靠泊窗口  
Multiple carriers compete for the same berthing window

与传统的营运商适度竞争  
Moderate competition with traditional players

2016年资产回报率达到峰值: 14%  
peak ROIC in 2016

以地方为重点的工会  
Locally focused unions

鼓励私人公司投资以支持经济发展  
Encouraged concessions to support economic growth

### 现在 Now

年度增长率 2 - 3% growth p.a.

3家超大联盟有很强的谈判能力  
3 mega alliances with significant negotiation leverage

成熟的市场产能过剩、竞争加剧;  
新的运营商比较活跃  
High competition with over-capacity in mature markets; New players active in the industry

新常态: 资产回报率7 - 8% as the new norm

国际工会网络; 对自动化和最优化的不配合  
International union networks; Push back on automation/optimization

对新的/续约项目要求有更高的回报  
Looking for greater returns from new / extended concessions

# 港口运营商如何应对外部挑战

## How are port operators responding to the external challenge ?

### 事例 Examples

#### 1.合并/运营整合

Mergers / operations consolidation

- 香港海港联盟 **Hong Kong Seaport Alliance**
- 跨区域或跨城市整合 **Cross-region or cross-city integration**  
(例如: 宁波舟山港整合, 浙江省海港集团成立  
(e.g. Ningbo-Zhoushan port merger, Zhejiang Province Port Group))

#### 2.和班轮公司垂直化整合

Vertical Integration with carriers

- 迪拜环球并购 **Unifeeder DP World's acquisition of Unifeeder**
- 和记港口和上海港持股东方海外 **Hutchison Ports and SIPG's minority investments in OOCL**

#### 3.集团内协同效应

Intra-group synergy extraction

- 马士基海运和马士基码头 **Maersk Line + APM Terminals**
- 中远海运航运 和 中远海运港口 **COSCO Shipping + COSCO Ports**

#### 4.港口和内陆服务一体化

Port and inland service integration

- 迪拜环球在印度内陆物流服务方面投资**30亿美金**  
**DPW's USD 3B initiative to invest in India inland logistics service**
- 上海港和宁波舟山港在长江网络港口整合战略  
**SIPG and NZPG in Yangtze River port network integration strategy**

#### 5.精益运营/优化

Lean operation / optimization

- 马士基码头公司在**30多个**控股码头推行操作标准化  
**APM Terminals' push to standardize operations at 30+ controlled terminals**

#### 6.数字化和自动化

Digitalization and automation

- 马士基码头公司在荷兰、墨西哥、摩洛哥、意大利和美国的自动化项目  
**APM Terminals port automation projects in Netherlands, Mexico, Morocco, Italy and USA**
- 内陆业务客户的数字化平台开发 **Digital platform development for landside customers**

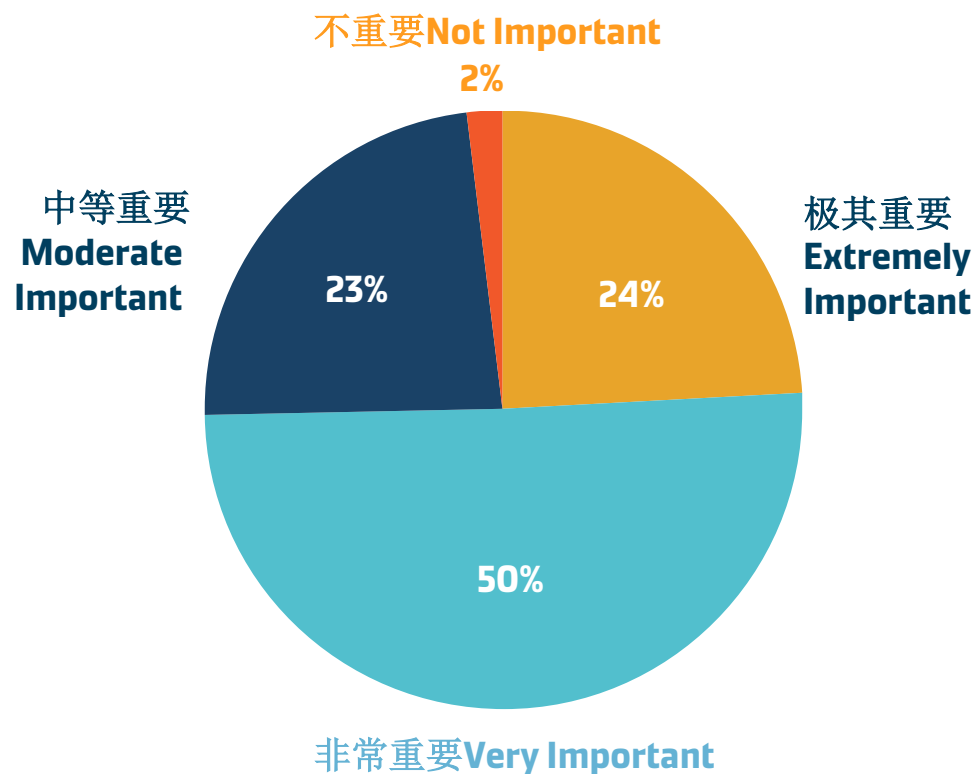


对于港口行业而言自动化至关重要且期望高，截至目前效益如何尚不明确

## For the ports industry automation is critical and expectations are high, but so far benefits are elusive

自动化对保持竞争力的重要性

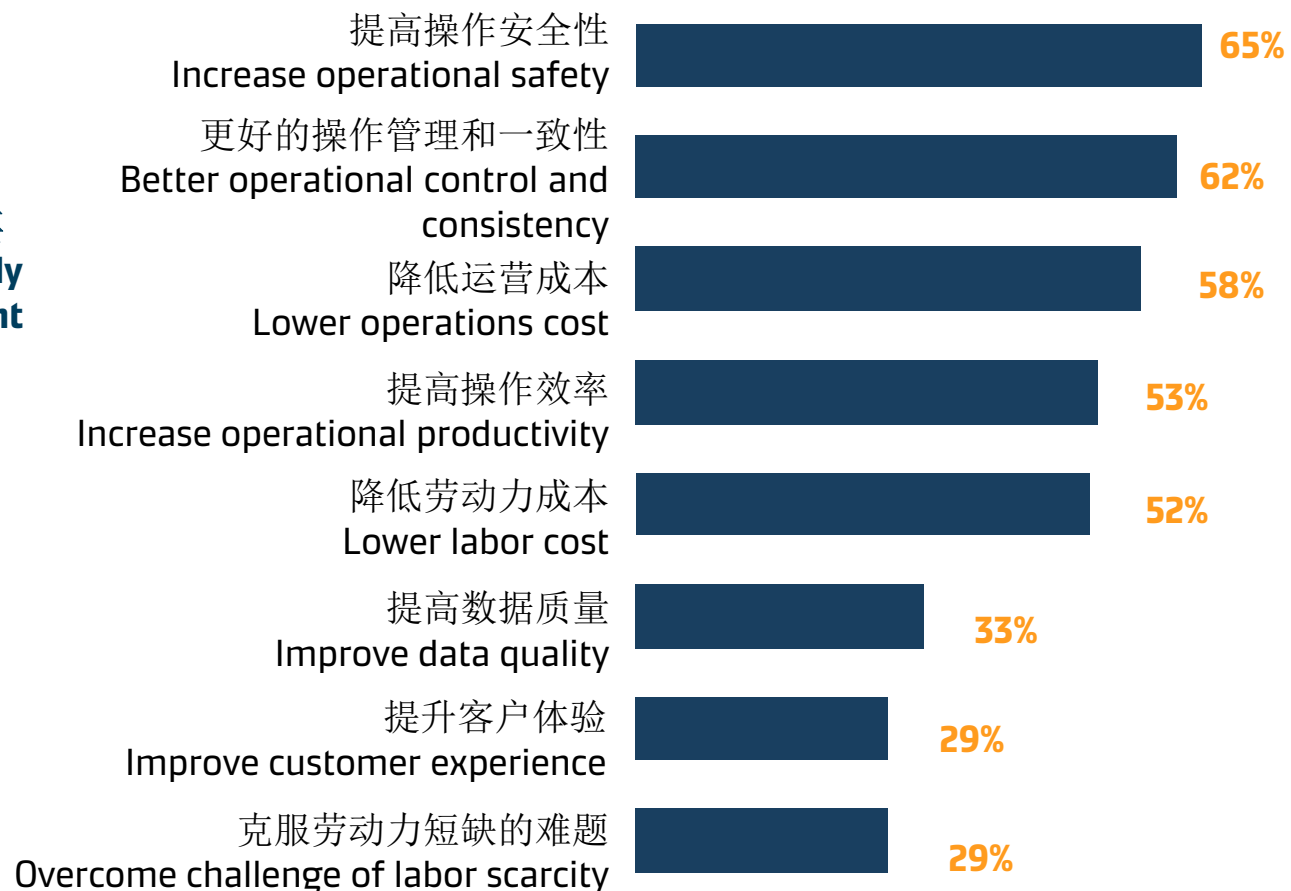
### Importance of Automation to stay competitive



(来源 Resource: \*Techvalidate survey across 78 Navis users)

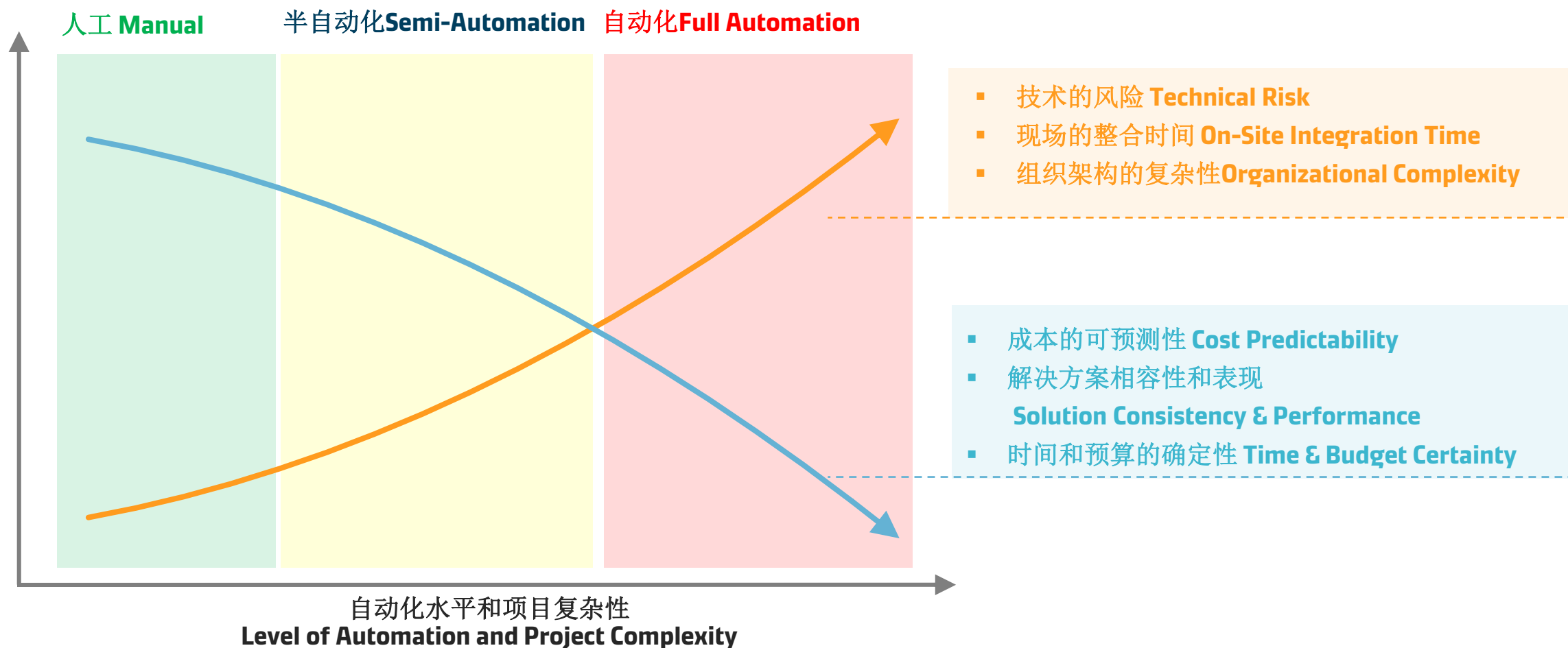
自动化所能带来的最重要效益是什么？

### What are viewed as the most important benefits of automation



然而，实现自动化的效益存在巨大的挑战

However, there are significant challenges realising the benefits of automation



标准化有助于克服自动化所面临的挑战，也使客户能够更快地受益！

Standardization can help to overcome automation challenges, also enabling customers to reap the benefits quicker!

因此，要取得切实进展，码头运营商需要在标准化方面发挥积极作用

**So to achieve tangible progress terminal operators need to take a proactive role towards standardization**



目前的标准化工作主要是供应商驱动，不太可能很快产生重大的突破性成果

**Current standardization efforts are mostly supplier driven and unlikely to yield significant breakthrough results anytime soon**



# 几年前马士基码头公司就已开始标准化之旅，并准备加强在这方面的努力 APM Terminals started its standardization journey several years ago and is ready to enhance its efforts



桥吊自动化  
Crane Automation



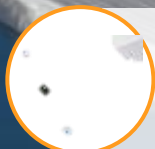
堆场智能化  
Intelligent Yard Block



水平运输  
Horizontal Transport



闸口自动化  
Gate Automation



冷藏箱监控  
Reefer Control



资源和设施  
Resources & Utilities

## 可以做什么 What can be done?

- 定义主要流程和码头模块的操作界面  
Define main processes and operation interface of the terminal modules
- 绩效可量化  
Make performance measurable

## 从哪里开始 Where to start?

马士基码头公司目前的主要重点是改善当前操作中水平运输以及码头模块之间的切换。

APMT current main focus is on improving horizontal transport and the hand-off between the terminal modules in our current operations.





**谢谢 Thank You!**

