



Mega Vessel Trends and the Impact on Container Terminal Operations

船舶大型化对集装箱码头操作的影响

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香港 现代货箱码头 — 柯礼贤







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Agenda议程

- Overview of Modern Terminals
现代货箱码头简介
- Mega Vessel Trends
船舶大型化趋势
- Impact on Terminal Operations
对码头操作的影响
- Solutions to Regain Lost Productivity
如何恢复生产力

Modern Terminals' Portfolio

现代货箱码头简介

Year of acquisition 获取股份年份	Container terminals 集装箱码头	Location 位置	
1972	 Modern Terminals	Hong Kong 香港	
1999	 Chiwan Container Terminal	Shenzhen 深圳	
2002	 Shekou Container Terminals	Shenzhen 深圳	
2004 (Phase I一期)	 Taicang International Gateway 太仓国际门户	Taicang 太仓	
2006 (Phase II二期)			
2007	 Da Chan Bay Terminal 大铲湾码头	Shenzhen 深圳	

Solid Foundation in Hong Kong

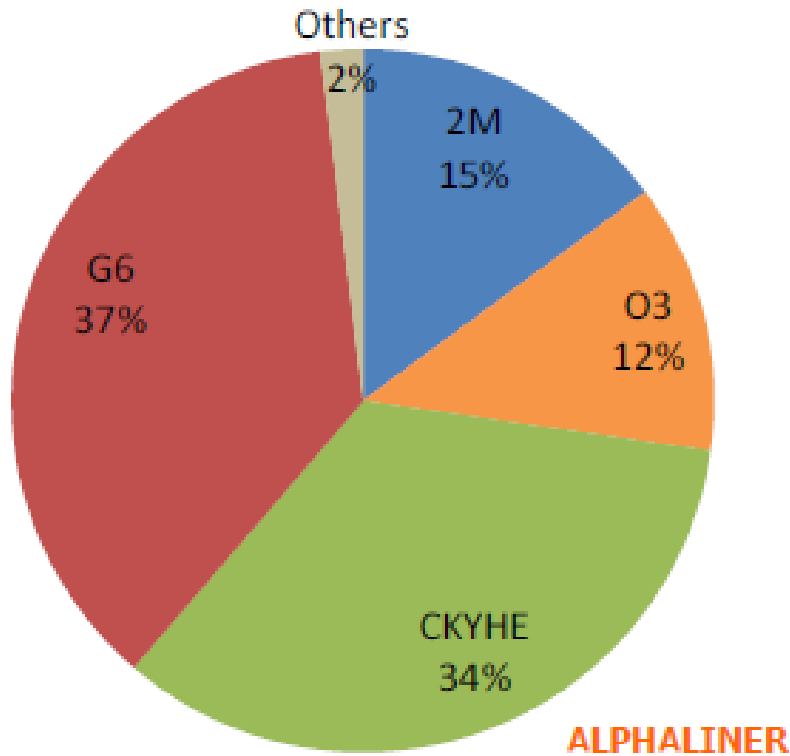
基础稳固 扎根香港



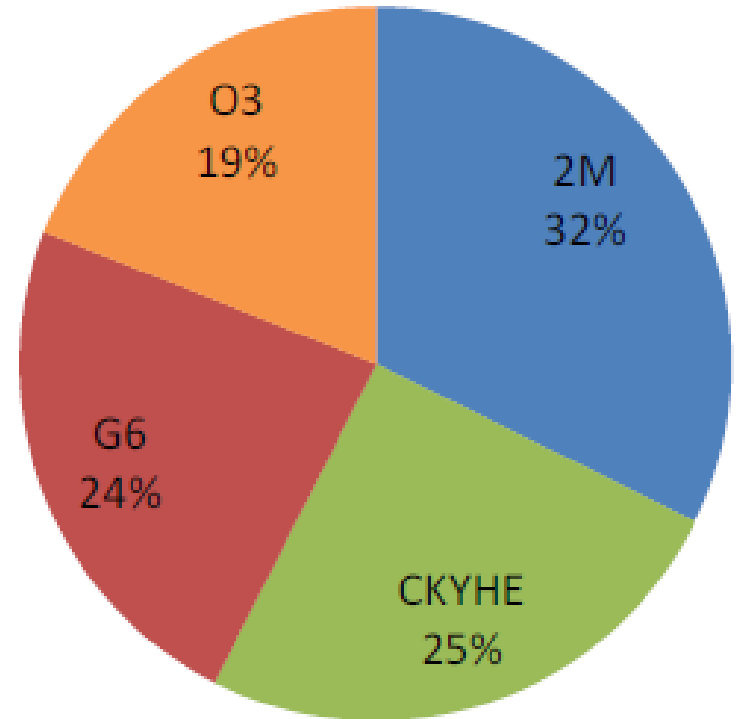
Shipping Line Alliance Trend

航运企业联盟趋势

Estimated capacity share by Alliance
FE-North America 估算北美联盟市场份额
(end 2014) (2014年底)



Estimated capacity share by alliance
FE-North Europe 估算北欧联盟市场份额
(end 2014) (2014年底)



The Trend of Increasing Vessel Size

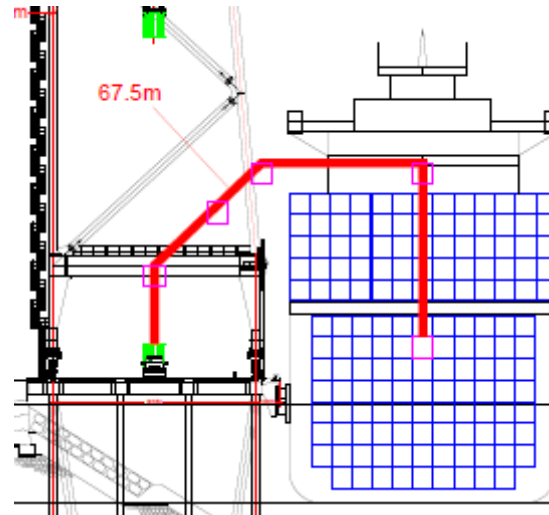
船舶大型化趨勢

Cellular Fleet Projections 船队估算								
Fleet as at: 船队规模 截至	Dec十二月 2013		Dec十二月 2014		Dec十二月 2015		Dec十二月 2016	
Nominal TEU 可载量	No. 数量	TEU 标箱	No. 数量	TEU 标箱	No. 数量	TEU 标箱	No. 数量	TEU 标箱
13,300-19,000	66	954,826	96	1,423,146	149	2,284,817	173	2,652,015
10,000-13,299	130	1,592,697	163	1,957,768	173	2,059,288	194	2,285,496
7,500-9,999	375	3,268,085	414	3,621,845	479	4,208,626	509	4,484,132
5,100-7,499	489	3,010,924	504	3,105,240	516	3,180,270	516	3,180,270
4,000-5,099	765	3,459,576	749	3,398,058	754	3,421,421	758	3,441,378
<4000	3,173	4,992,882	3,166	5,020,177	3,248	5,191,522	3,314	5,320,699
Total 合共	4,998	17,278,990	5,092	18,526,234	5,319	20,345,944	5,464	21,363,990
Annual Growth 年增长率	5.7%		7.2%		9.8%		5.0%	

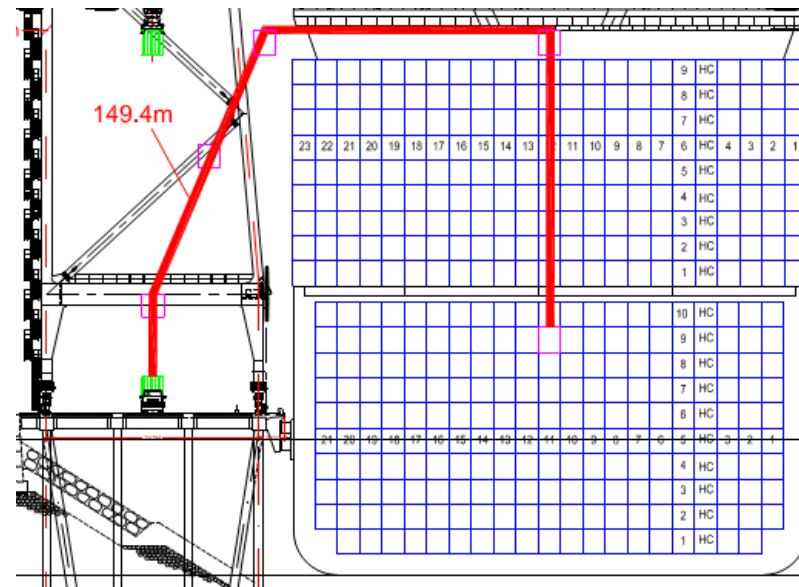
Operational Impact of Larger Vessels

超大型船舶对码头操作的影响

Panamax Vessel
13 across
5 containers above deck
巴拿马型船
甲板上可并列13个集装箱
可叠放5层



Triple E Vessel
23 across
9 containers above deck
3E级 超大型集装箱船
甲板上可并列23个集装箱
可叠放9层

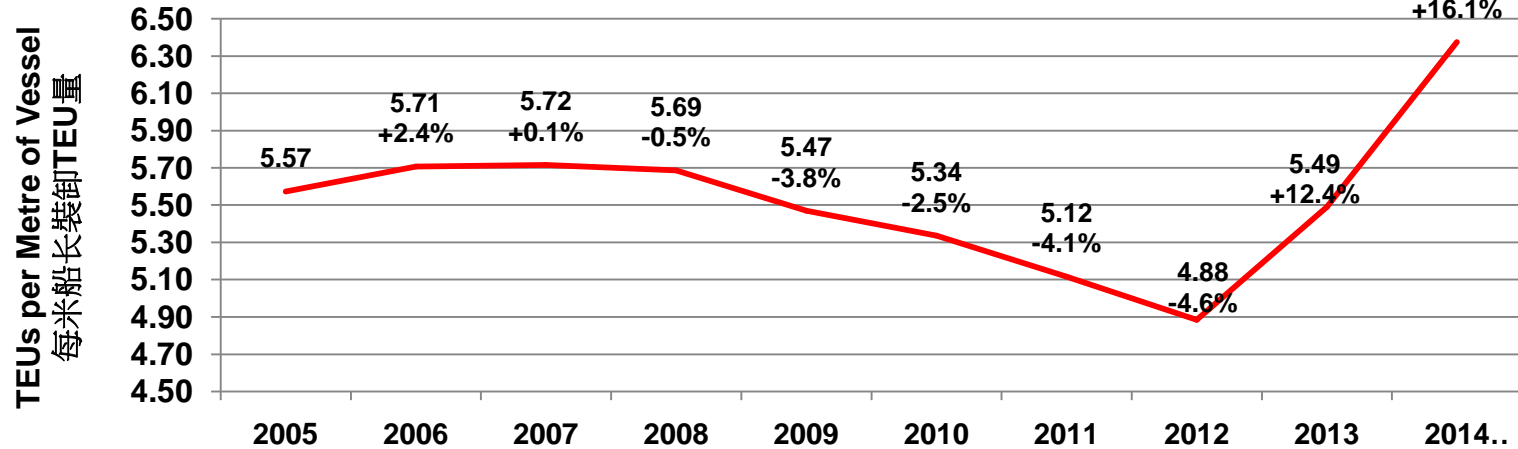


Deck level is 8m higher than Panamax
甲板高度比巴拿马型船高8米

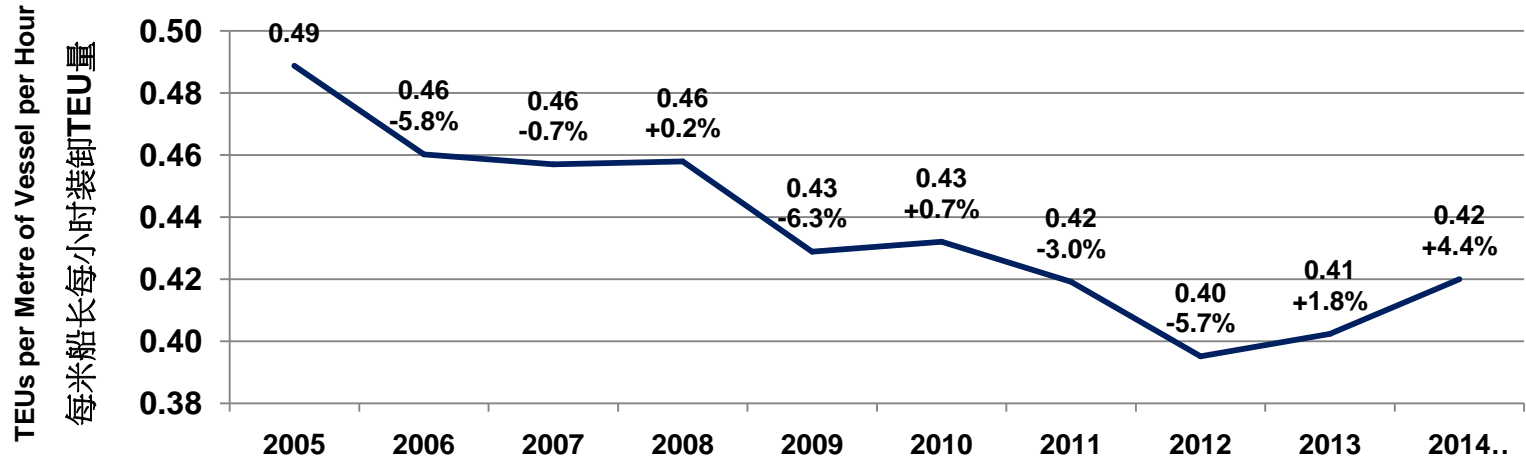
Operational Impact of Larger Vessels

大型船舶对码头操作的影响

Vessel TEU per LOA (M) 每米船长装卸TEU量



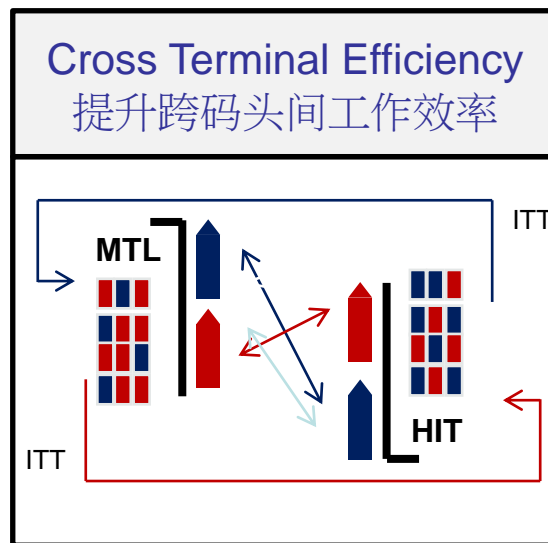
Vessel TEU per LOA (M) per Port Hour 每米船长、在港停留每小时装卸TEU量



As Alliances Consolidate, Terminals are Becoming More Fragmented

船公司抱团结盟，码头公司却变得分散

- There are 7 terminal sites in Hong Kong
目前香港港口共有座落于七处地点的码头
- As alliances consolidate, their operations span multiple sites
船公司结盟共享舱位，但同一船货物的装卸却分散在多个码头



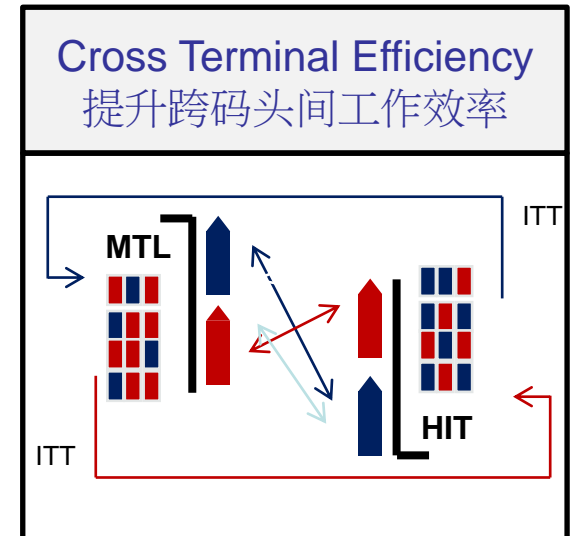
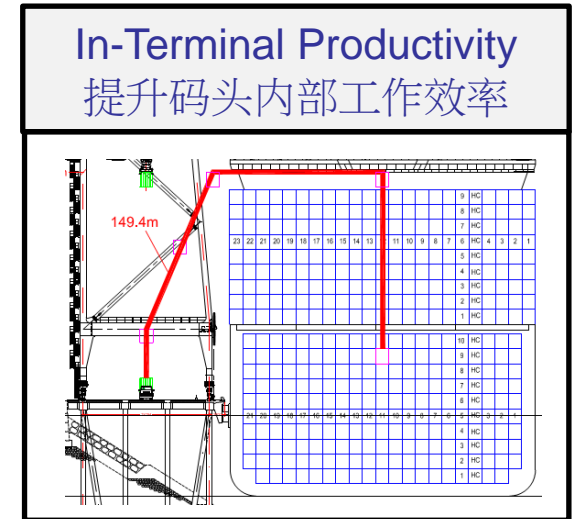
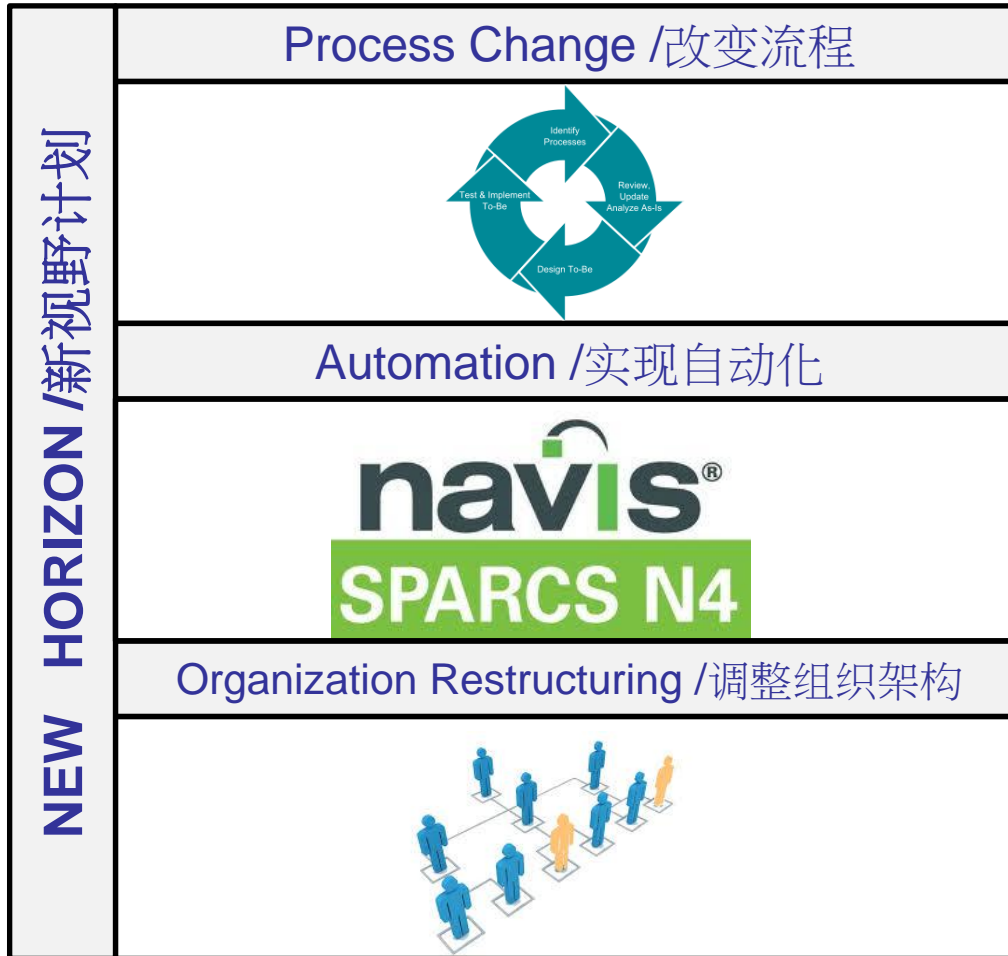
- Split calls and cross-terminal deployments reduce efficiency and drive up costs
一港多挂及跨码头操作影响装卸效率、增加成本
- Collaboration is needed to regain lost productivity
只有合作才能重新提升生产力

Solutions to Regain Lost Productivity

如何重新提升生产力

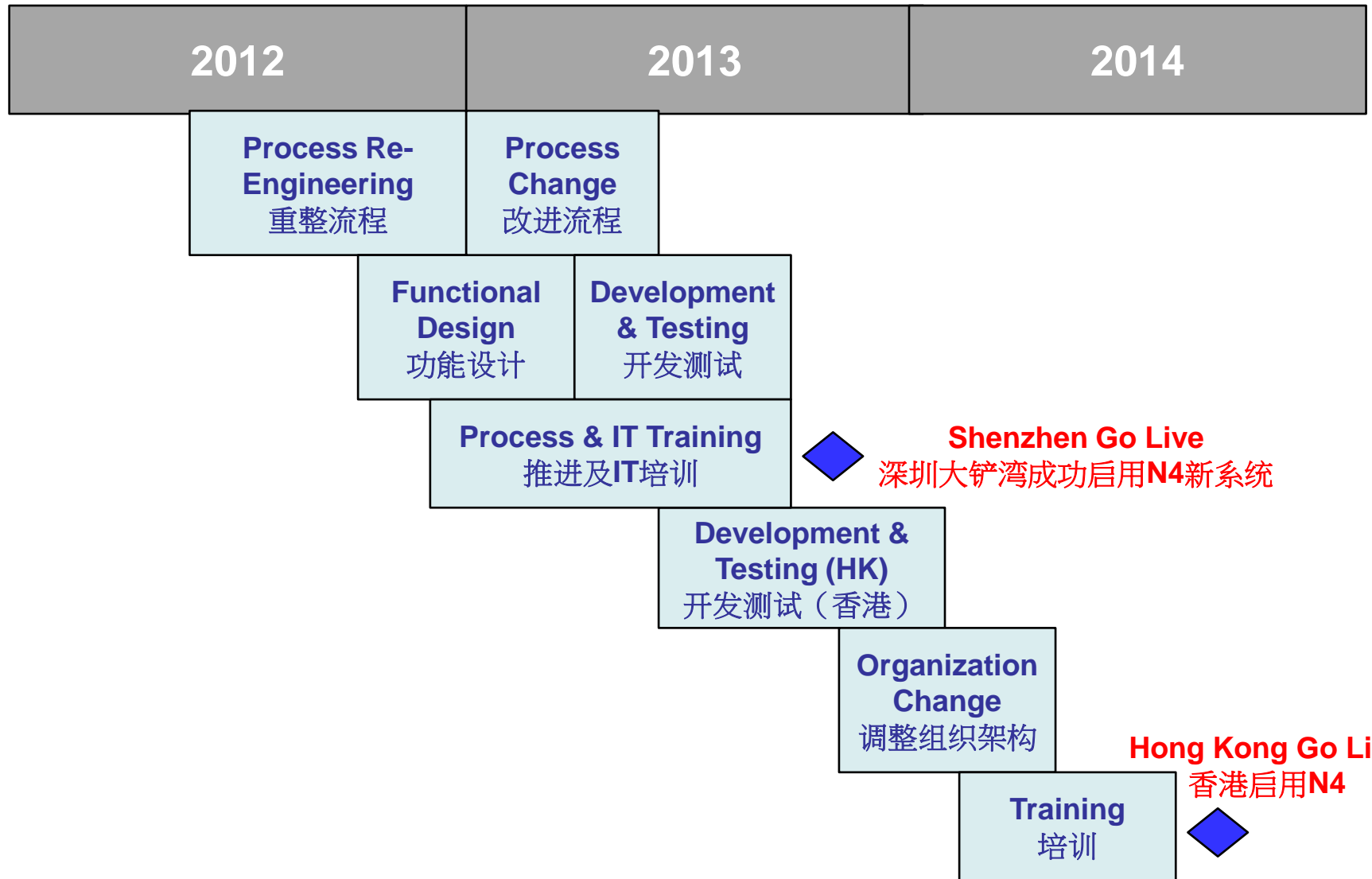
- **Advanced Terminal Operating Systems**
先进的码头操作系统
- **Reconfigured Terminal Infrastructure**
码头基础设施升级换代
- **Port Community Initiatives**
港口业界倡议
- **Improved Pattern Stowage**
改进配载模式
- **Changing the Dialogue with Shipping Lines**
与船公司改变对话

Advanced Terminal Operating Systems 先进的码头操作系统



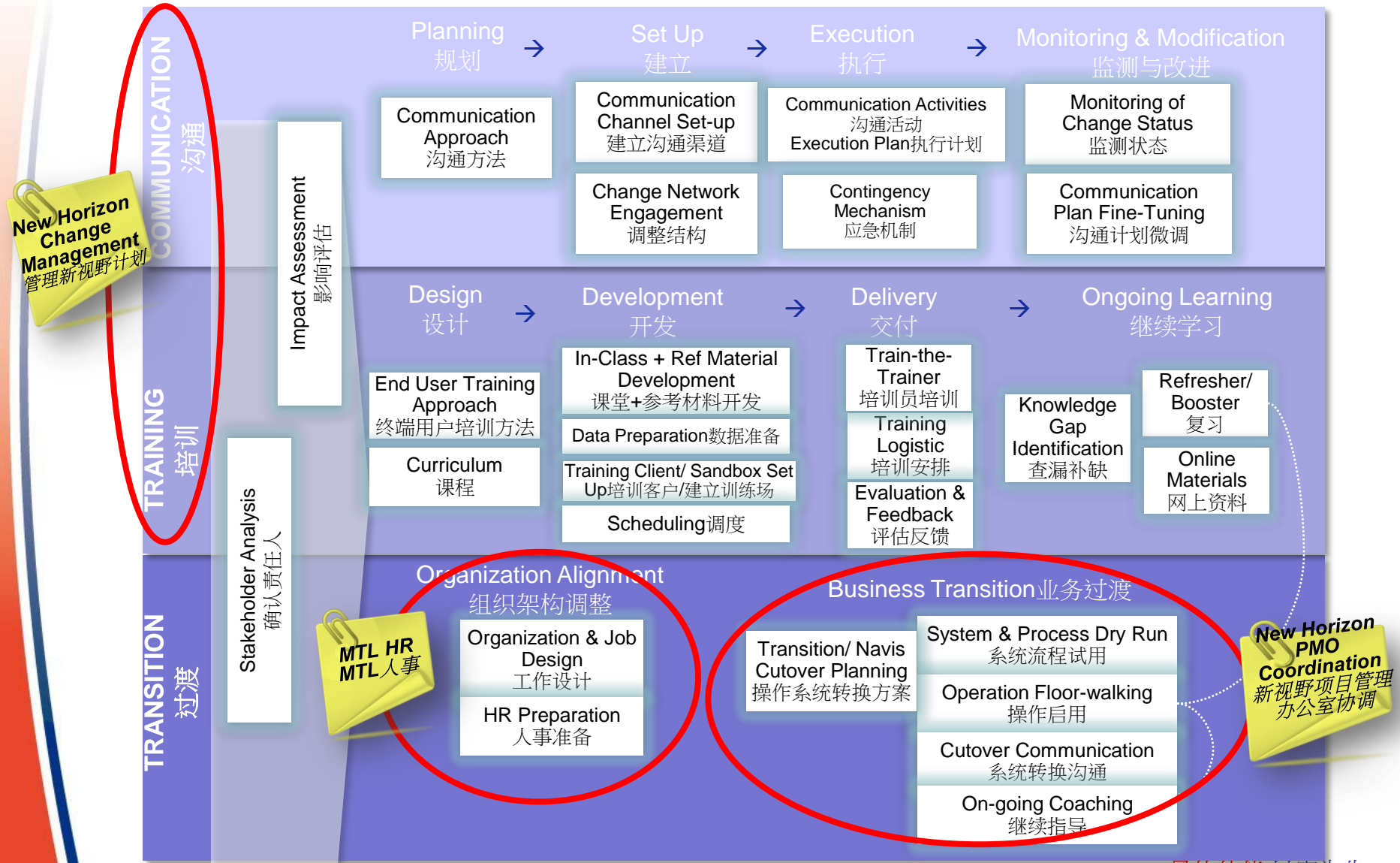
The 3 Year New Horizon Programme

新视野三年计划



New Horizon Investment in Change

不断完善的新视野计划



New Horizon Change Management
管理新视野计划

Impact Assessment
影响评估

Stakeholder Analysis
确认责任人

MTL HR
MTL 人事

New Horizon PMO
Coordination
新视野项目管理
办公室协调

A Prize Winning Approach 榮譽



**Navis 2015
激勵獎**

Reconfiguring Terminal Infrastructure

码头基础设施升级换代



Quay deck strengthening
for larger vessels
加固码头平台，
满足大型船舶挂靠需求

Crane rail replacement
for larger cranes
配合大型岸吊，
更换集装箱装卸桥轨



Quay crane and yard
crane automation
岸桥及场桥自动化

Port Community Initiatives

港口业界倡议

Enhance the Operating Model for Hong Kong Port 提升香港港口操作模式

Data flow / 数据流

Enforce standardized formats (EDI) and data cut-offs

实施标准化电子数据交换模式 (EDI)、统一数据截止点

Physical cargo flow / 实质性货流

2nd carrier info for vessel and inter-terminal transfers

承运商提供第二船舶资料，做好跨码头内渡工作

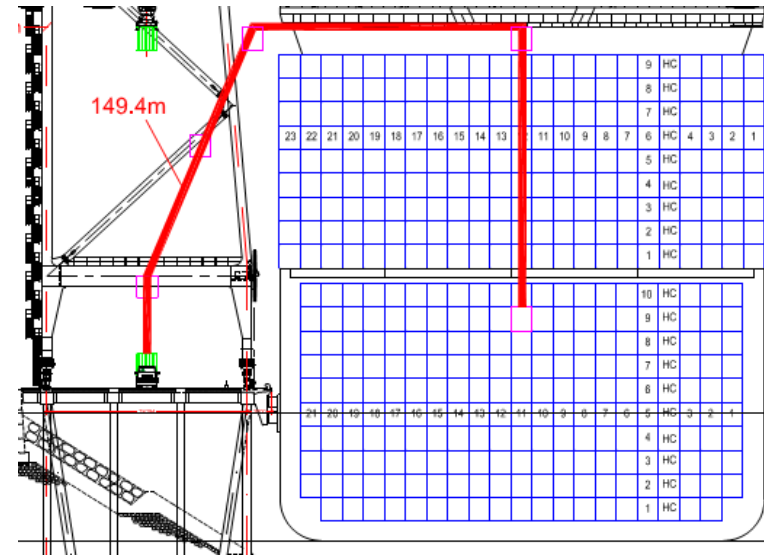
Future developments / 今后的发展

Create road map for entire port community and understand innovation from other industries

为整个港口群创建路线图，并加深了解其他行业的创新概念

Improving Pattern Stowage 改进配载模式

- Thoughtful design and disciplined implementation needed
需要巧妙的设计与严格执行的纪律
- Consistent stowage planning week to week
稳定的每周配载规划
- Better communication between stowage co-ordinators and terminal planners
加强配载协调员与码头船只策划员之间的沟通
- Visibility of stowage patterns earlier than last port of call
提前获知配载方案

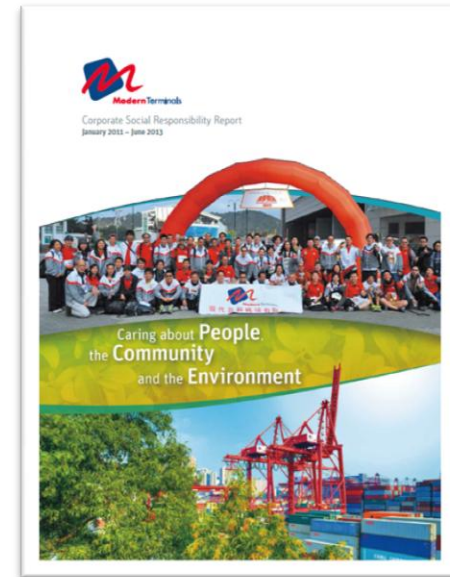


Changing the Dialogue with Shipping Lines 与船公司改变对话

- Move away from simple volume/price discussions
不再简单地讨论箱量/价格
- A partnership model to ensure industry alignment
合作模式确保行业间相互接轨
- Ensure incentives for crane and berth productivity
激励机制保证桥吊及泊位效率
- Share in pain of inefficiency and gain of efficiency
分享耕耘与收成的经验

Continued Focus on Sustainable Development 持续关注可持续发展

- Corporate Social Responsibility 企业社会责任
 - People 以人为本
 - Health & Safety 健康与安全
 - Community Involvement 社区参与
 - Environment 环境保护
- CSR Reporting 企业社会责任报告
- CSR Awards 企业社会责任奖





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