

Jakarta 24 June 2015

GAUSSIN MANUGISTIQUE®

Creator of global handling solutions

Manufacturer of handling and self-propelled systems

13th ASEAN PORTS & SHIPPING

2 0 1 5

Teluk Lamong: A case for semi-automatic container terminal
Elvio Simonetti, Sales and Marketing Director
Gaussin Manugistique
France



SCHEDULE

- **Gaussin Company and Port Equipment Introduction**
- **Gaussin Range of Products**
- **GAUSSIN Partners**
- **Biz cases Semi-Automatic & Full Automatic Terminals**
- **Testing platform of AIV in Gaussin Plant**
- **Recent Orders**



Introduction of GAUSSIN Company



Brief history of the Cy



1880 – Eugène GAUSSIN
Metal constructions



1961 – Henri GAUSSIN - Industrial trailers



1970 – Beginning of the containerization



1994 – AIRBUS (FULL ELEC vehicle)



2006 – IPO Listed on the Nyse Alternext





Transport

Energy

Raw
material

Product cycle from prototype to commercial launch



2007/08

2009/10

2011/12

2013

2014

Définition & 1st drafts

Prototype
Industrialisation
ATT V1

Commercialisation
Pré-séries V4 et prototype AIV

Série ATT V3
ATT Lift
Proto full Elec & Hybrid

Commercialisation
8 véhicules
5 POWERPACK



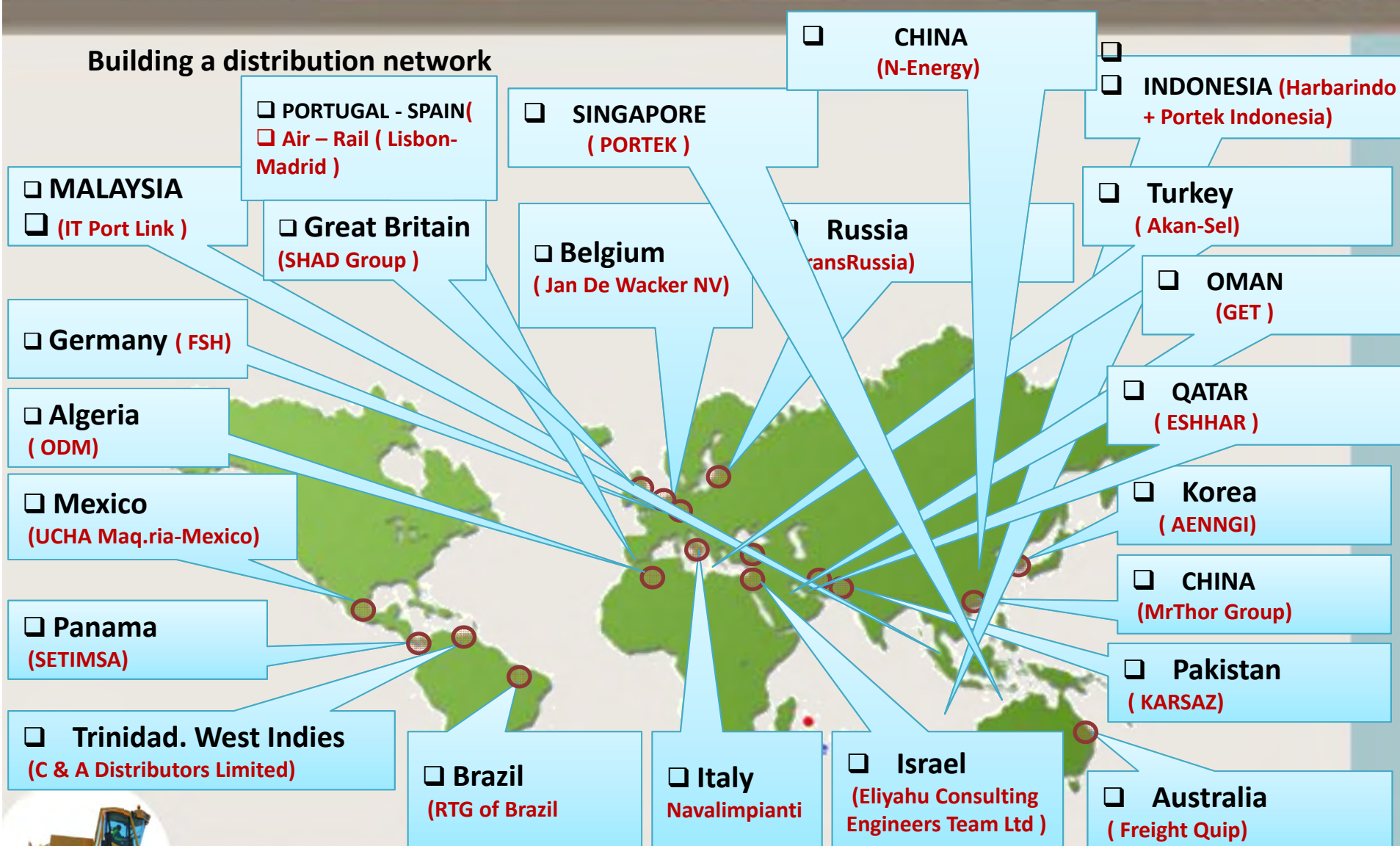
DOCKIT

PORT EQUIPMENT



A network of 21 distributors currently being implemented

Building a distribution network



Gaussin Range of Products for Terminal Operators





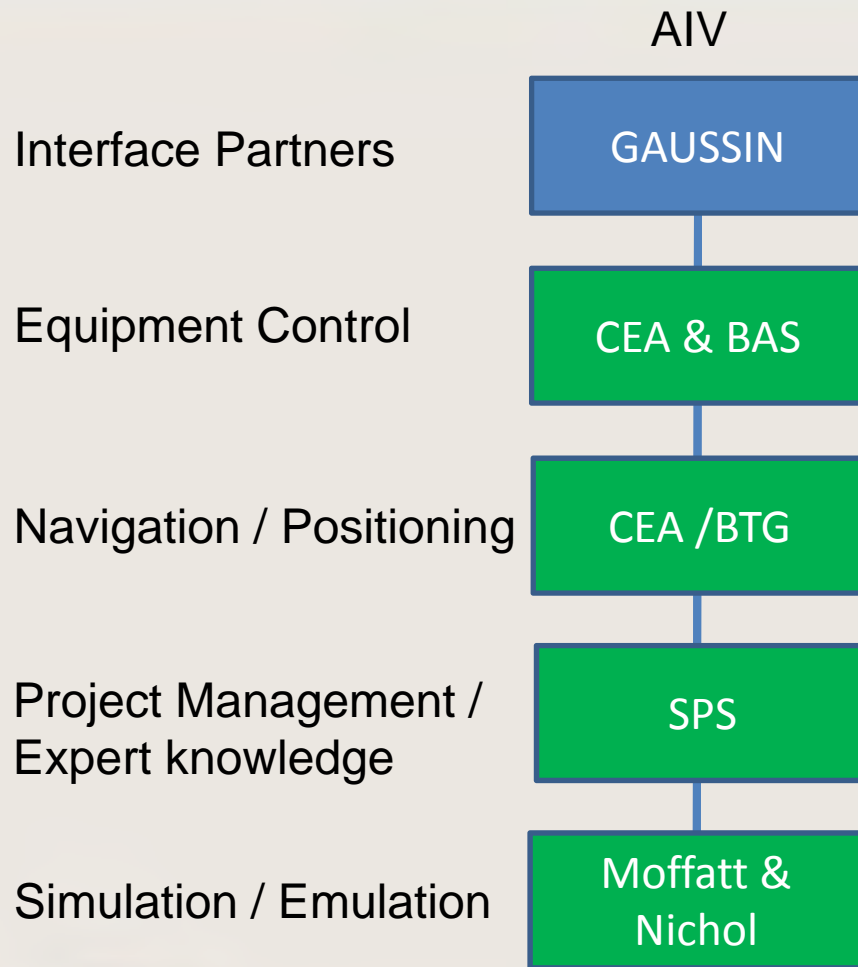
The Power of your dreams...



GAUSSIN Partners (flexibility)



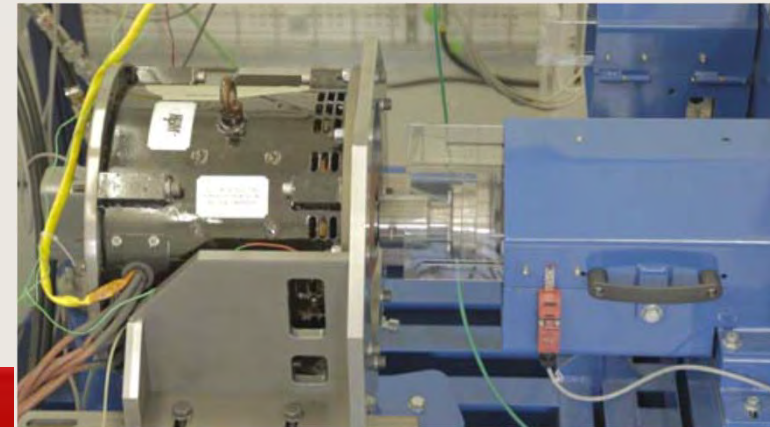
Partnership Org Chart FULL AUTOMATIC TERMINALS



CEA Liten (Grenoble/France)



Motor validation



Knowledge as a battery cell manufacturer

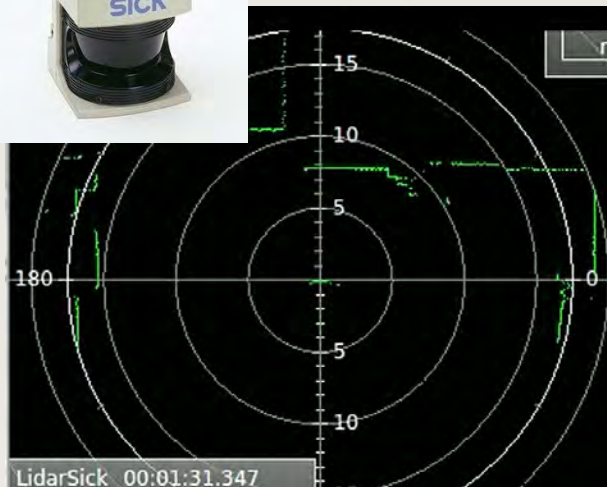


Battery assembly and management

CEA List (Paris/France)



Vehicle simulation with multi-body kinematics validation

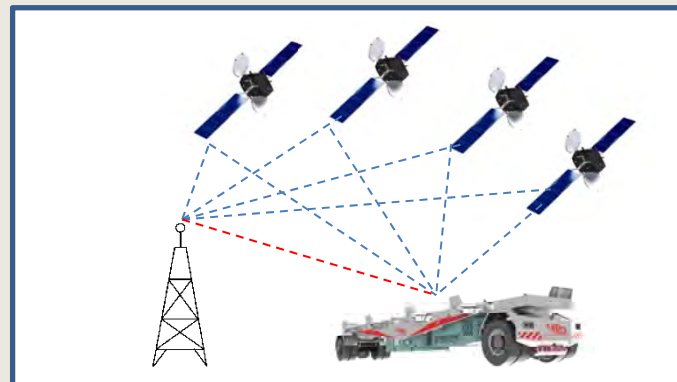
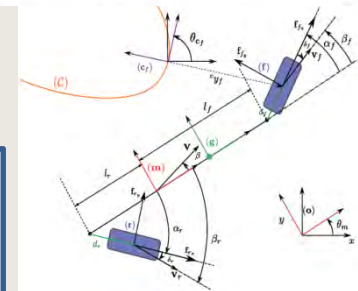


Laser for guidance and obstacle avoidance



Robotics Algorithms

$$V_f = \frac{1}{2} \left[y_f^2 + \frac{1}{\lambda_{y_f}} (\theta_m - \theta_{c_f} + \beta_f)^2 \right]$$



GPS-RTK = differential GPS for better position accuracy



In 2007, BA Systèmes launched its initial approaches to **RID** (Research Innovation and Development). The aim is to share BA Systèmes skills and expertise with other entities like the Gaussin AIV system.

This open innovation method creates real impetus in the **development of technologies** for industrial applications. A win-win proposition for BA Systèmes and its partners, but especially the users of automatically guided vehicles, which are the first to benefit from the latest technological developments.



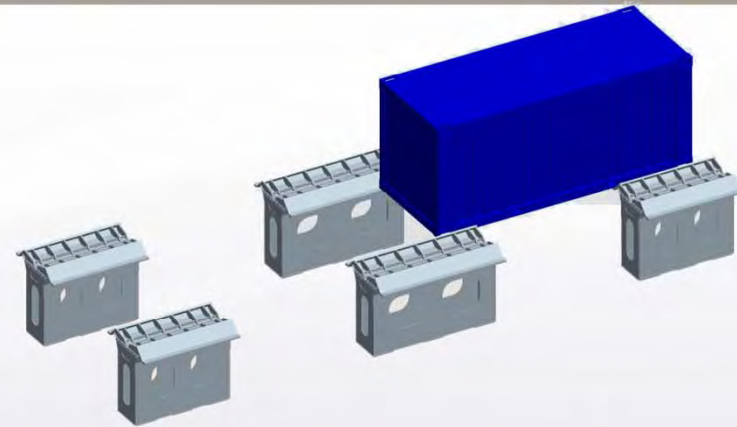


Leading global infrastructure advisor specializing in the planning and design of facilities that shape our coastlines, harbors and rivers as well as an innovator in the transportation complexities associated with the movement of freight.



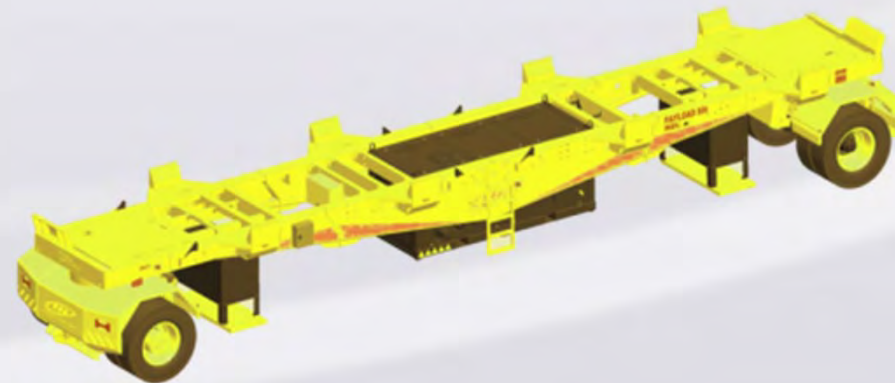
Business case Semi-Automatic and Full-Automatic Terminals





Automotive Intelligent Vehicle®

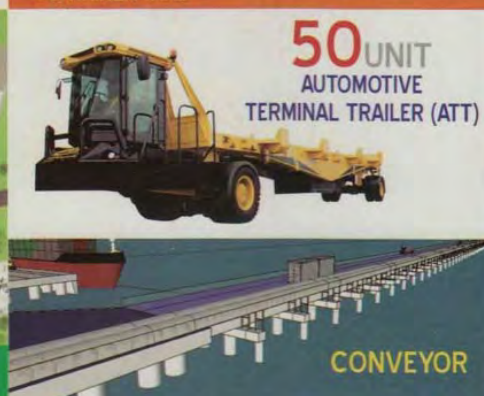
By GAUSSIN



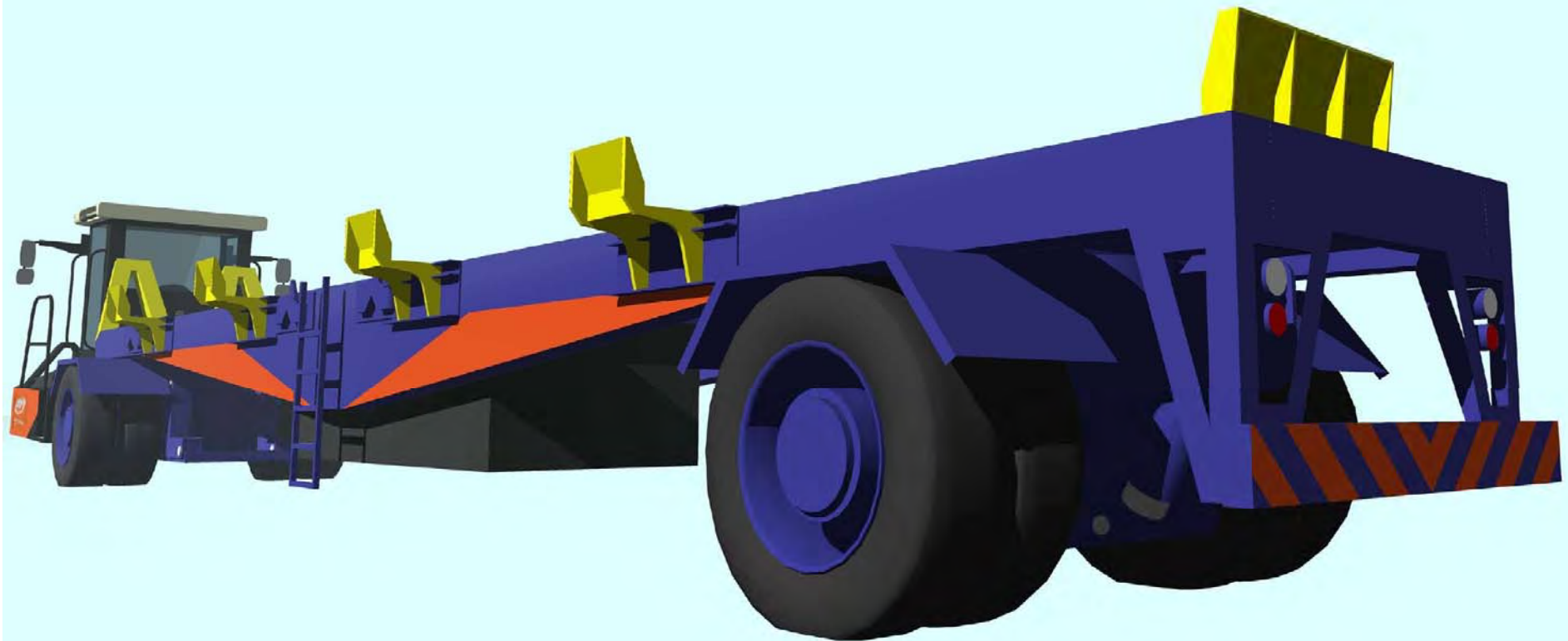
SEMI-AUTOMATIC TERMINAL Lamong Bay layout



Lamong Bay facilities



ATT LIFT OPERATION



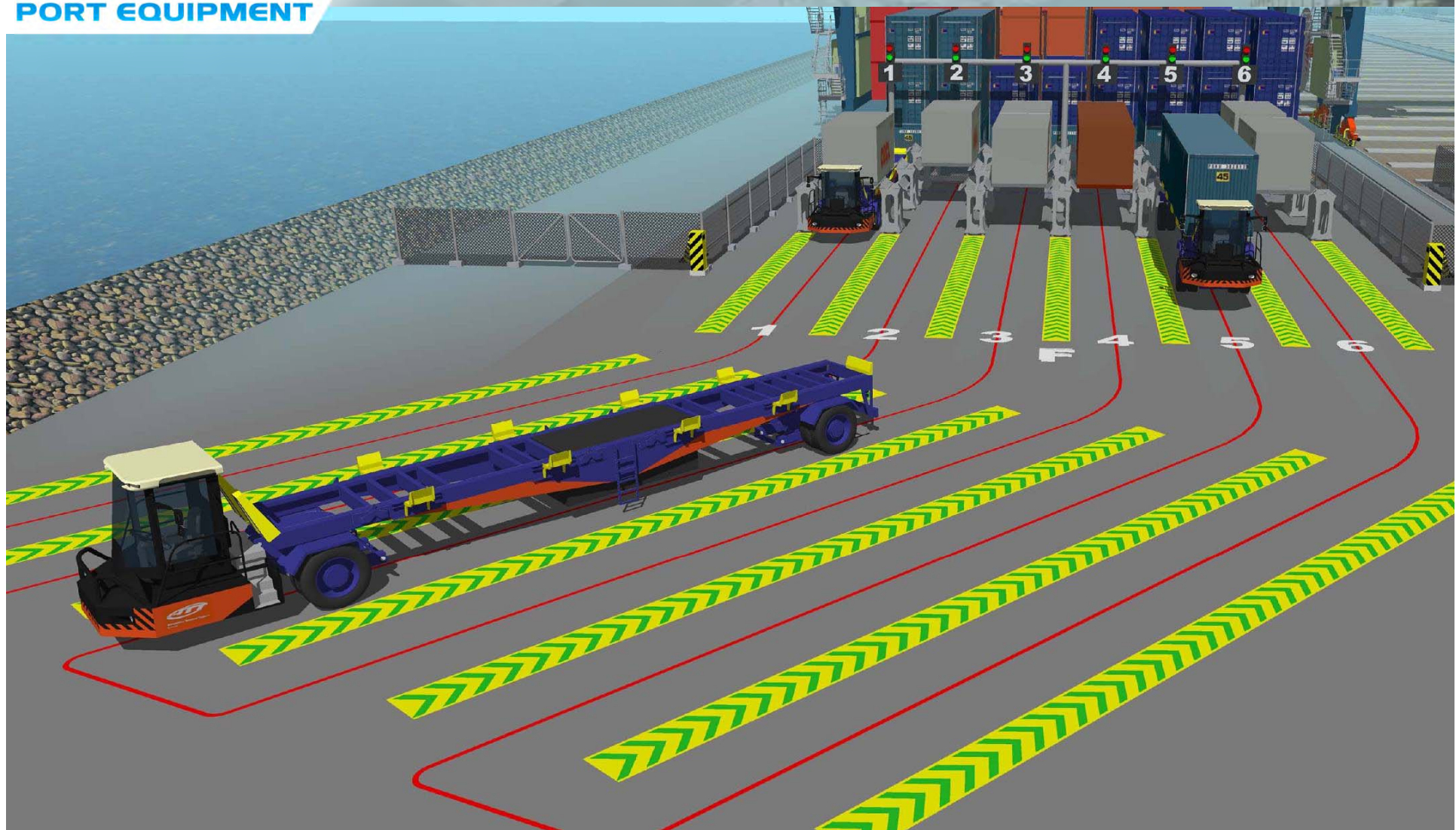
ATT LIFT OPERATION



50cm lift



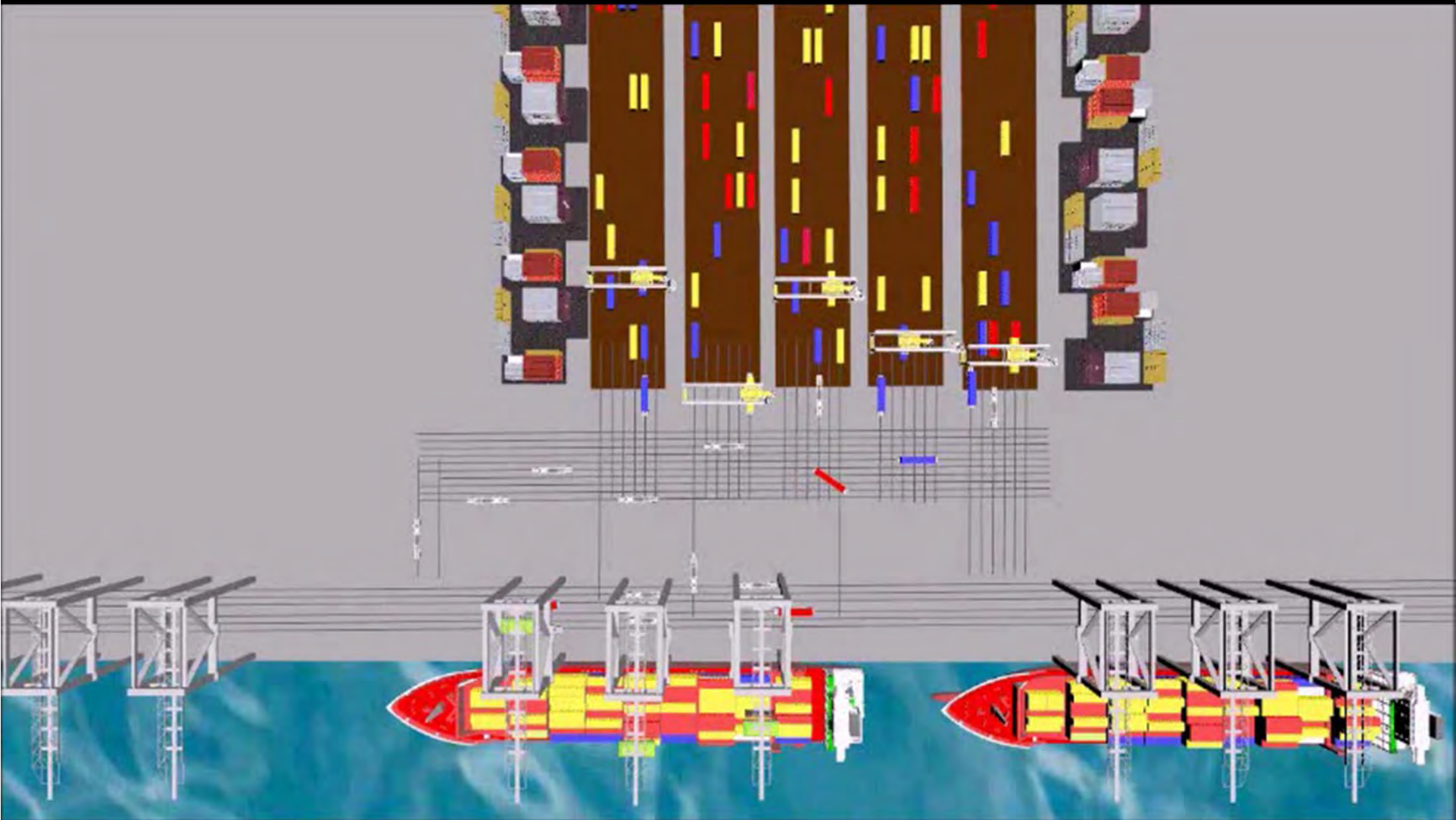
LAMONG BAY WATERSIDE TRANSFER AREA

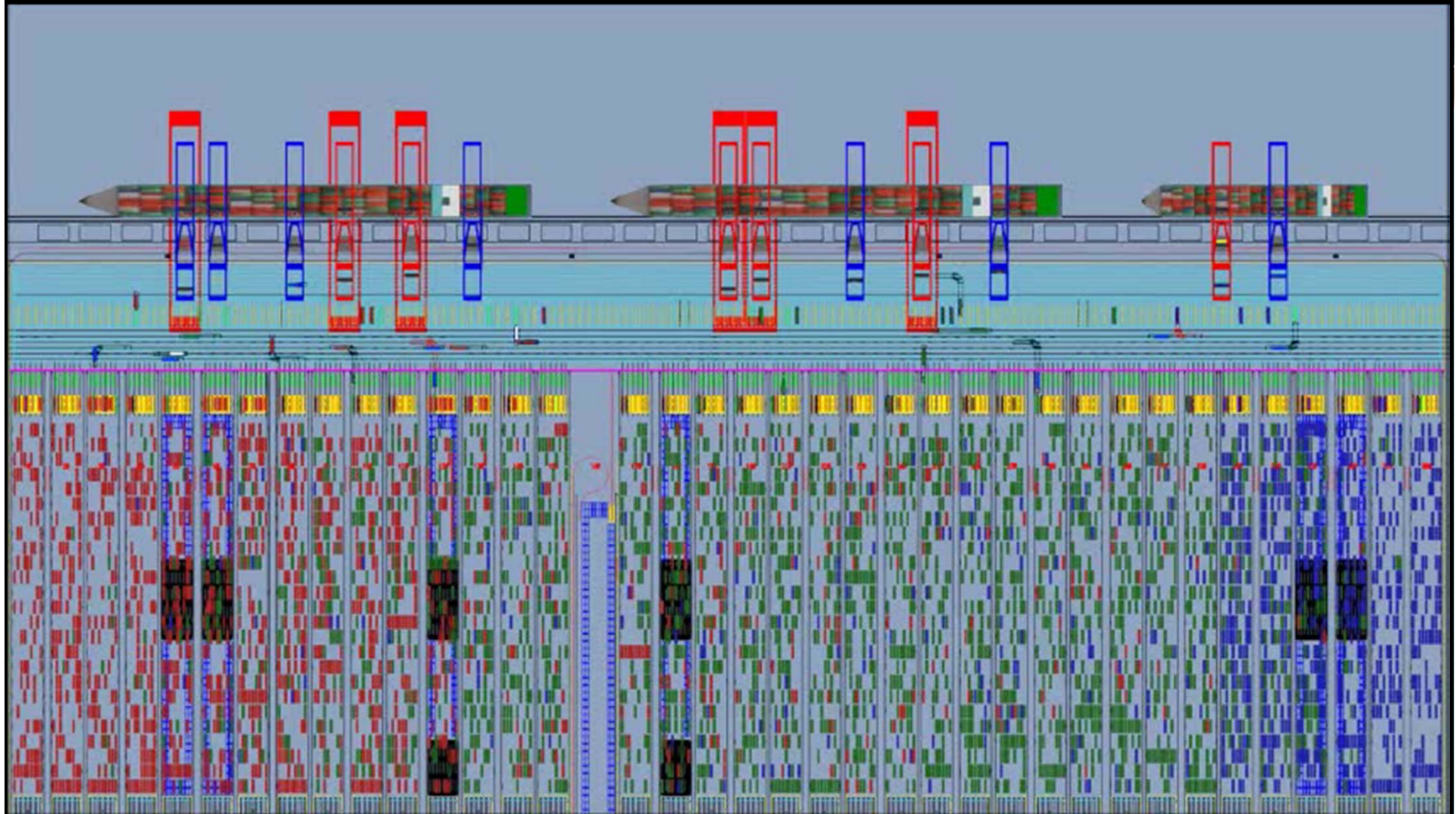


FULL-AUTOMATIC TERMINAL Lamong Bay Container Terminal

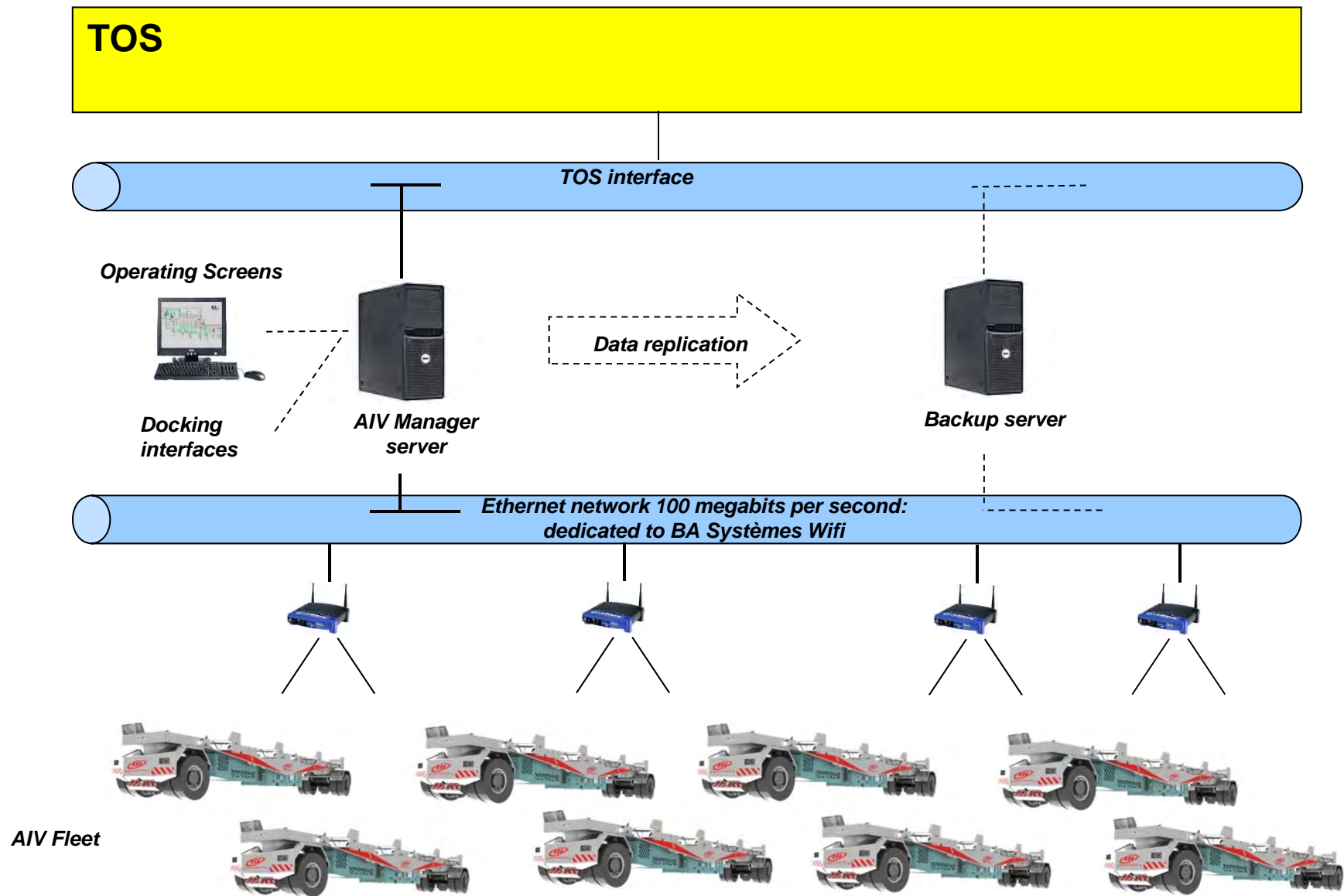








System architecture

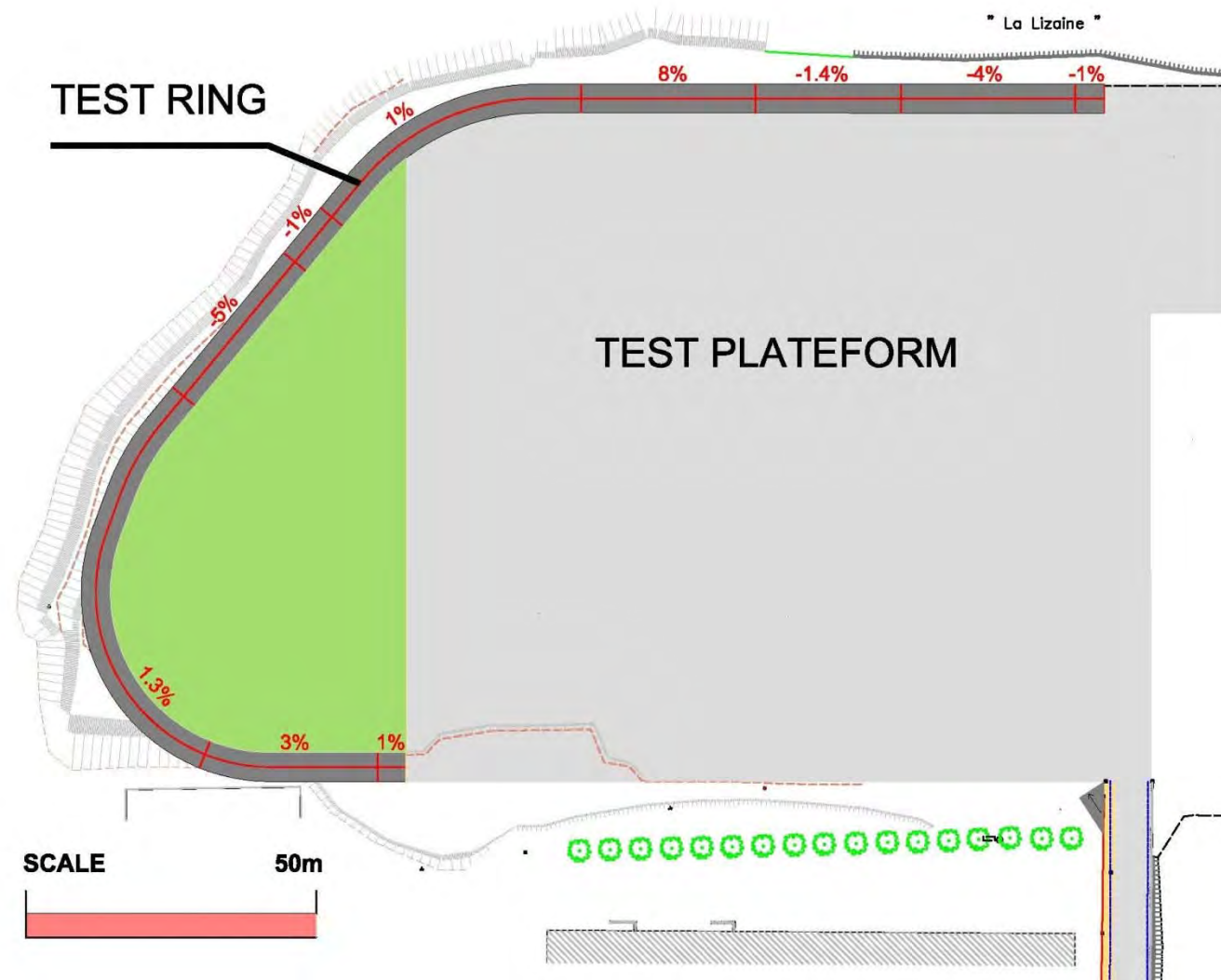


Testing Platform of AIV in Gaussin Plant





HERICOURT TEST RING



Automated Horizontal Transportation 3.0



Intro

The pioneers

Decoupling

The creative mind

The power of your dreams

Buffering

Controlling the fleet

Conclusion



Automotive Intelligent Vehicle®

By GAUSSIN




GAUSSIN recent orders



First firm order for complete ATT – V4 vehicles


- On 19 October 2012 – APM Terminals Tangier – leading operator of the Tanger Med port, confirmed the firm order for 48 ATT V3 vehicles and 51 POWERPACKS.
- After final tests by APM Terminals Tangier undertaken using 9 ATT V3 vehicles from October 2011 to June 2012.
- In addition to the 9 vehicles put at its disposal on the port to carry out the tests, the order included 39 additional ATT vehicles, with delivery planned for the first quarter 2013.
- 51 POWERPACK units, associated motorization systems, were also ordered.




Faster
Safer &
Cleaner®

ATT V3
Automotive Terminal Trailer®
By GAUSSIN

APM Terminals Tangier
move with ATT®



APM Terminals Tangier, opérateur majeur du port Tanger Med, choisit la technologie innovante ATT® pour ses opérations portuaires, en s'équipant de 48 véhicules ATT®s et du système de motorisation associé POWERPACK®.



GAUSSIN MANUGISTIQUE®

www.gaussin.com Valeur Nyse Alternext : FROO10342329 ALGAU

GAUSSIN MANUGISTIQUE® est spécialisée dans l'étude, les projets, la conception et la réalisation de systèmes sur mesure pour la mise en place et le transport de charges lourdes, volumineuses ou dangereuses. Avec plus de 60 000 véhicules de manutention à travers le monde, GAUSSIN Manugistique bénéficie d'une forte notoriété sur quatre marchés en pleine expansion : l'énergie, le transport, l'équipement et les matières premières. GAUSSIN MANUGISTIQUE® est cotée sur Nyse Alternext depuis le 16 juin 2010. Les actions GAUSSIN sont cotées, depuis le 20 juillet 2012, sur le groupe de cotation E2 (offre au public), depuis l'adoption du Visa AMF n°12-360 en date du 17/07/12 sur le Prospectus, disponible sans frais sur www.gaussin.com.



- A new order from AKANSEL for **40 ATT FULL ELEC** has been signed and the delivery of 20 units is planned in the second half of 2014 and 20 more units in the first half of 2015.
- After APMTT creating **reference zone on the Mediterranean and West Africa**, PELINDO opens the area of **South East Asia** where 63% of global volumes are processed and finally Akansel on the **the Middle East area**
- The Customer could add 60 units to this order by taking an option.



March 2014 : New order from an operator in Germany

- The GAUSSIN Group announced the signature on 10 March 2014 of a new order for 20 ATT V4s with the German company FSH.
- Specialised in mobility services for port operators, FSH is GAUSSIN Group's licensed distributor in Germany.
- The 20 ATT-V4s will be delivered during second-half 2014 and first-half 2015.
- They will equip the port of Hamburg, largest commercial port in Germany and third-largest European port.



FSH a port & logistics operator from Turkey, has chosen the innovative ATT® technology for its port operations and equips itself with 40 ATT® vehicles and with POWERPACK® FULL ELEC, their associated motor system.



GAUSSIN
MANUGISTIQUE®

www.gaussin.com

GAUSSIN MANUGISTIQUE® is specialized in the audit of handling processes, and the development of wheeled handling systems used to install and transport heavy, bulky or fragile loads. With more than 50,000 vehicles worldwide, GAUSSIN MANUGISTIQUE® boasts a strong reputation in four markets with strong potential: Energy, Transportation, Environment and Raw Materials. GAUSSIN MANUGISTIQUE® is listed on the NYSE Alternext since 16 June 2010; GAUSSIN shares are listed since 20 July 2012 on the E2 listing (public market) since obtaining AMP Visa n°12-360 on 17/07/12 for the Prospectus, available free of charge on www.gaussin.com.

11 rue du 47 RA
70400 HERICOURT FRANCE
Tél: +33 (0)3 84 46 13 45
Fax: +33 (0)3 84 56 78 88
infos@gaussin.com

New order for complete ATT – V4 vehicles

- March 2013: New order for 50 ATTV4 and 50 Powerpacks signed by a leading port operator in Indonesia:
PT PELABUHAN INDONESIA III (PERSERO)
- PELINDO III Surabaya requested driverless navigation tests on the testing grounds at Héricourt before deciding to equip its 50 ATTV4s with the LIFT and Docking Station options
<http://youtu.be/oVDCzpsPsRE>.
- This technology, developed in a partnership with the CEA, will be officially presented at the TOC fair in Rotterdam from 25 to 27 June 2013
<http://youtu.be/-xPHT1PDD7U>



ATT
Automotive Terminal Trailer®
By GAUSSIN

PELINDO III Indonesia moves with ATT®
Faster, Safer & Cleaner*

... PT Pelabuhan Indonesia III,
l'un des opérateurs portuaires leaders en Indonésie,
choisit la technologie innovante ATT®.
Il s'équipe de 50 véhicules ATT®
et du système de motorisation associé POWERPACK®.

GAUSSIN
MANUGISTIQUE®

PELINDO III

www.gaussin.com Valour Nysa Albernex : ALBAU

GAUSSIN MANUGISTIQUE® est spécialisée dans l'audit des processus de maintenance et la réalisation de systèmes sur mesure pour la mise en place et le transport de charges lourdes, volumineuses ou délicates. Avec plus de 50 000 véhicules de maintenance à travers le monde, GAUSSIN MANUGISTIQUE bénéficie d'une forte notoriété sur quatre continents : l'exemple, le Transport. L'entretien et les machines polyvalentes. GAUSSIN MANUGISTIQUE est coté sur NYSE Euronext depuis le 16 juin 2010. Les actions GAUSSIN sont cotées, depuis le 20 juillet 2012, sur le groupe de cotation E2 (Dfse au public), depuis l'abandon du Visa AMF n°12-360 en date du 17/07/12 sur le Prospectus, disponible sur le site www.gaussin.com.



THANK YOU ! SEE YOU SOON

Gaussin Team



GAUSSIN

MANUGISTIQUE®

Jakarta 25th June 2015

