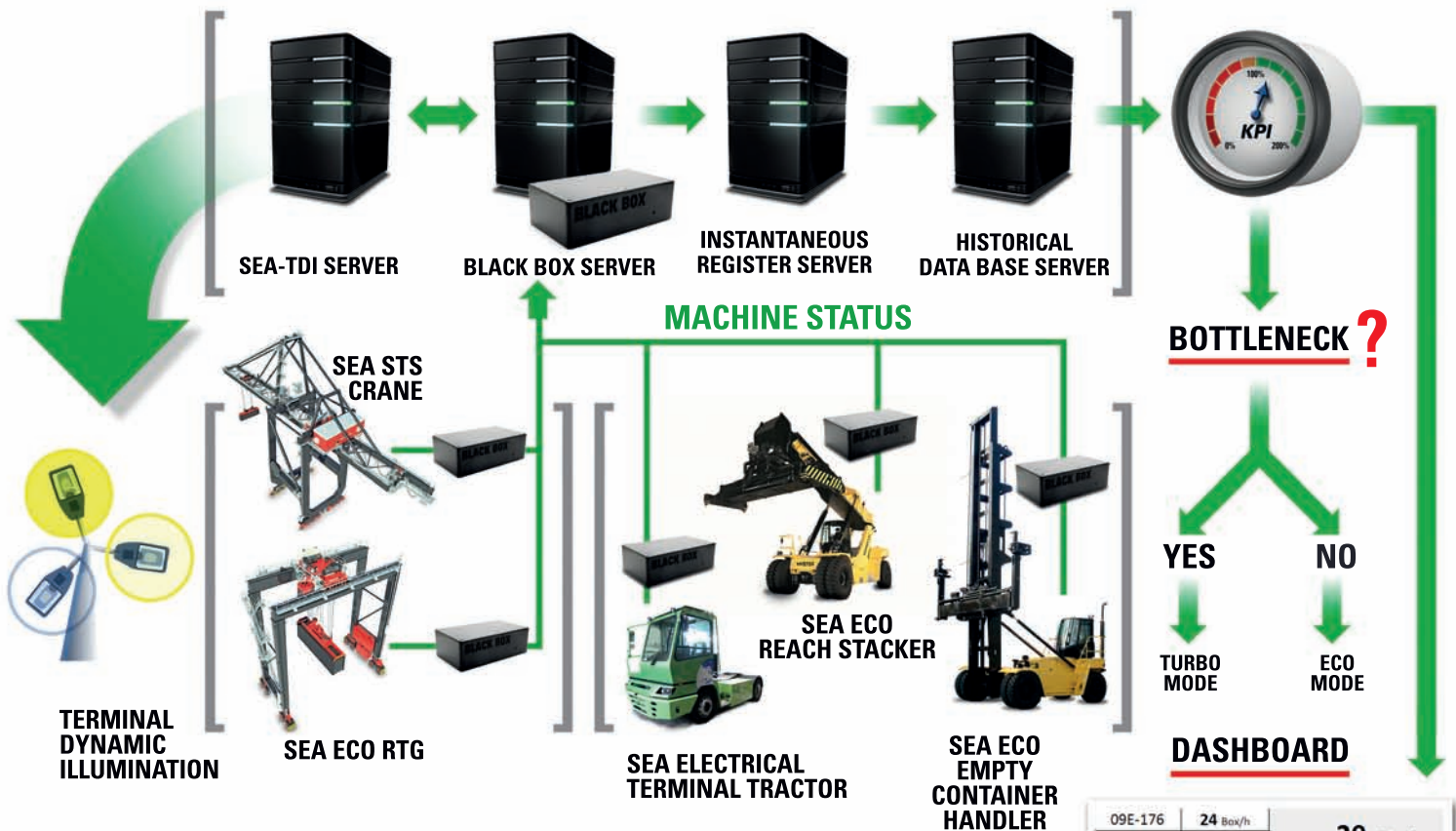




SEAMS Platform

(Smart Energy Efficient and Adaptive Management System)



PROTOTYPE DESCRIPTION

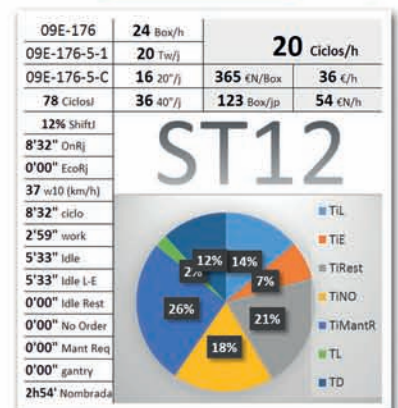
The Smart Energy Efficient and Adaptive Management system is a state-of-the-art prototype monitoring tool developed and implemented within the framework of the European project SEA TERMINALS at Noatum Container Terminal Valencia. The SEAMS platform prototype is capable of monitoring the machines and equipment that are being used at a Port Container Terminal. In this case the SEAMS platform will monitor the entire Noatum Container Terminal Valencia

OBJECTIVES OF THE SEAMS PLATFORM PROTOTYPE

- To monitor the machines and equipment of the Port Container Terminal through an innovative Blackbox prototype.
- Better understanding and planning of the terminal operative through real time monitoring system.
- The SEAMS platform will generate Key Performance Indicators (KPIs) in real time for the terminal planning and execution of operations.
- Detect and analyse operative bottlenecks of the Port Container Terminal.
- Quantification of GHG emissions savings when the equipment is operating at ON mode or ECO mode.

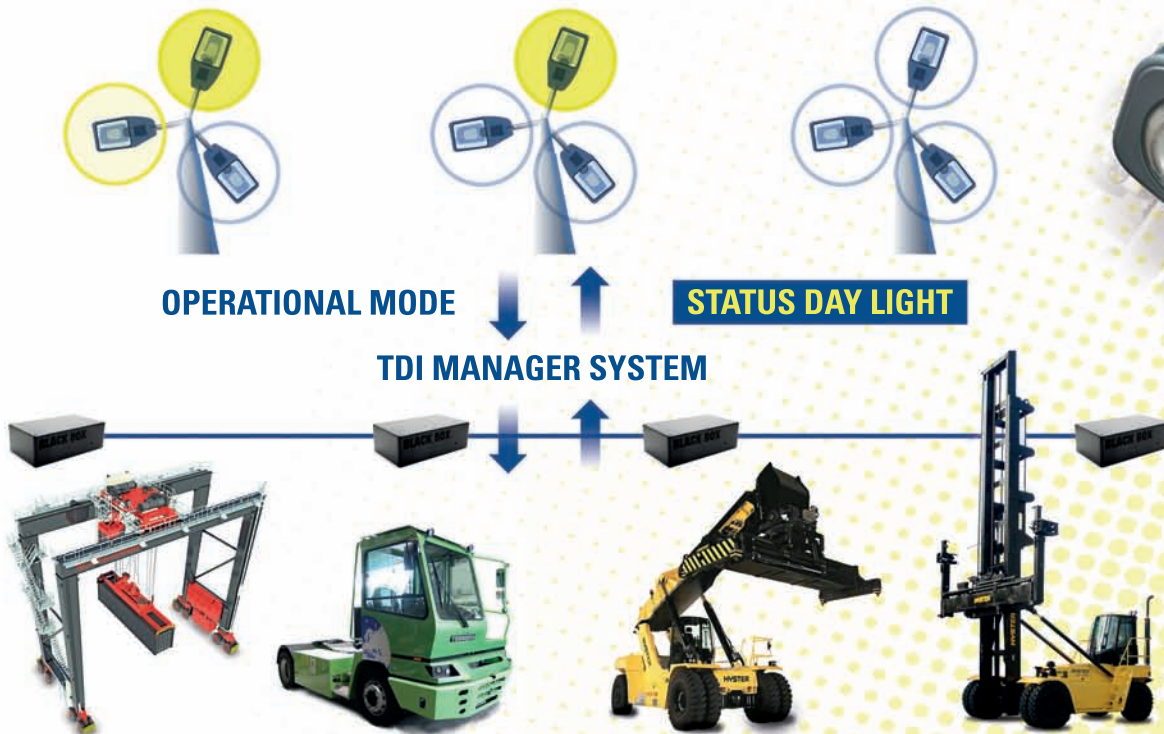
POTENTIAL BENEFITS

- Analysis and optimization of the operational performance at the Port Container Terminal.
- The SEAMS platform will allow terminal operators to forecast and plan the Port Container Terminal performance and the required equipment needed.
- Knowledge in real time of the machines and equipment positioning through the SEAMS platform dashboard.
- Increase safety by reducing human errors due to better planning.
- Improvement of the energy efficiency container terminal and reduction in fuel and energy consumption due to the identification of bottlenecks.



The SEAMS Platform will provide an advance Dashboard for the operations staff of the terminal. The Dashboard will display the relevant Key Performance Indicators in real time that will facilitate planning and operations as well as improving energy efficiency at the terminal.

Terminal Dynamic Illumination (TDI)



The estimation of the savings for a Port Container Terminal such as Noatum Container Terminal Valencia installing LED luminaire and the dynamic illumination is 8 times the actual lighting energy consumption.

PROTOTYPE DESCRIPTION

The Terminal Dynamic Illumination (TDI) is a prototype system implemented at Noatum Container Terminal Valencia that allows to managing and reducing the terminal illumination in a smart and efficient way. The system will maintain a minimum of illumination conditions in order to guarantee safe and efficient operations at Noatum Container Terminal Valencia.

The Terminal Dynamic Illumination comprises LED luminaires and a software that reduces to a third the lighting levels whenever there are no operations nearby the illumination tower. In addition the Terminal Dynamic Illumination system adapts automatically the lighting conditions at sunrise and sunset hours so there are not sharp changes of lighting conditions at the Port Container Terminal.

OBJECTIVES OF THE TERMINAL DYNAMIC ILLUMINATION PROTOTYPE

- Achieve a better energy management of the terminal illumination system.
- Reduce the terminal lighting energy consumption and GHG emissions as a consequence.
- Operate remotely the lighting needs in collaboration with a user friendly, dynamic and clear interface without the necessity of displacement.

POTENTIAL BENEFITS

- Better quality of light during night operations at the Port Container Terminal.
- Maintain minimum energy consumption conditions due to terminal illumination and only increase the lighting conditions at the high density operation zones.
- Energy savings due to reduction of lighting levels at the sunrise and sunset conditions.
- Working knowledge of each luminaire in real time, determining operation and maintenance alarms in real time.

SEA TERMINALS PARTNERS:



BPO
BALTIC PORTS
ORGANIZATION

OLT

PAI

Global Service Srl

Scuola Superiore Sant'Anna

NACCO MATERIALS HANDLING GROUP

edae

ITE

amplia)))

IMPLEMENTING BODIES: