NEW DIGITAL REVOLUTION IN PORTS-CITIES

seatropolis
“seatropolis

A self-sustaining sea community powered by renewable energy systems
REVOLUTION
SOMETHING IS HAPPENING
the number of connected things exceeded world population in 2005
INTERNET OF THINGS

1. SENSORS & ACTUATORS
2. CONNECTIVITY
3. PEOPLE & PROCESSES
SMARTPORTS
NEW DIGITAL REVOLUTION IN PORTS
THE THREE PILLARS OF A SMART PORT

1. INFRASTRUCTURE
2. TRAFFIC FLOWS
3. TRADE FLOWS
INFRASSTRUCTURE

Establishing intelligent infrastructure is imperative to ensure smooth and efficient traffic and trade flows in ports.
TRAFFIC FLOWS

An intermodal Port Traffic Centre to interlink the various modes of transport and make traffic flows on water, rail and road more efficient.
TRADE FLOWS

Having at one’s disposal the relevant information where and when required will ensure optimum trade flows. Logistics services providers, hauliers and agents may choose the most efficient mode of transport for their goods.
Speed at which cargo in hinterland are moved to foreland and vice versa depends on the performance of cranes, trucks, barges, trains,...
PORT’S EFFICIENCY FACTS

1. TURNAROUND
2. UNLOAD
3. LOAD
PLANNING SYSTEM
MOVING FAST WITH LESS ENERGY
PLANNING
YARD -> CREW -> GATE
PLANNING
HINTERLAND TRANSPORT
ENERGY SYSTEMS

YOU CANNOT MANAGE WHAT YOU CANNOT MEASURE!
ENERGY SYSTEMS
SMART DRILL DOWN
# Energy Systems

## Real Time KPI's

<table>
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<tr>
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<th>Tempo Real</th>
<th>Pesquise Aqui</th>
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**Phase Sequence 1**

![Phase Sequence 1 Graph]

**Phase Sequence 2**

![Phase Sequence 2 Graph]

**Phase Sequence 3**

![Phase Sequence 3 Graph]

**Phase Sequence 4**

![Phase Sequence 4 Graph]
## Regras de Automação

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THANK YOU!

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