

**Presented by**

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- **What is a Green Terminal?**
- **What is Automation?**
- **What are the Benefits?**
- **Is it really Practical?**
- **What are the Problems?**
- **What will it do for the Bottom Line?**

- **Minimum Impact on the local environment**
  - Reduced Air Pollution
  - Reduced Noise
  - Reduced Light
  - Reduced contaminated run off



- **Minimum Impact on the total environment**
  - **Minimise energy use**
  - **Minimise land take**
  - **Minimum water contamination**



- **Full Automation**
  - Used on very few terminals
  - AGVs or automated straddle carriers
  - Usually uses RMGs
  
- **Partial Automation (Driver Aids)**
  - Very common on new equipment
  - Offers some of the benefits
  - Part of a phased solution



- Reduced emissions
- Reduced wear and tear
- Reduced box damage
- Reduced fuel consumption
- Programme for low emissions
- Reduced noise
- Predictable performance
- Less weather dependent



- ECT and Thamesport operating since 1989
- Steel industry several years before
- CTA opened 2004
- PSA has problems
- Brisbane is up and running
- Use the technology you are comfortable with
- Allow for upgrades

- Labour Issues
- Lack of shipper confidence
- Higher technical support levels
- Partial automation can be difficult



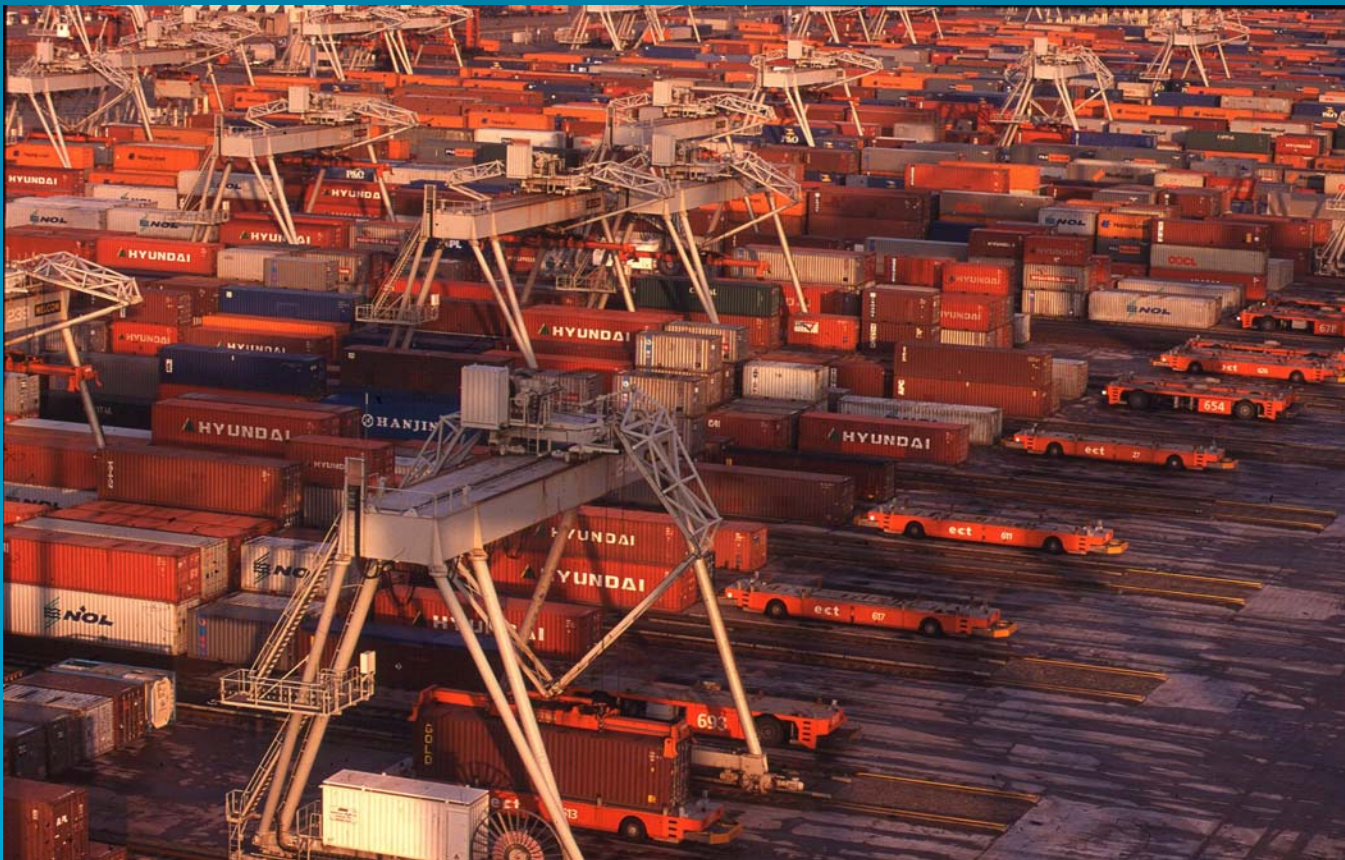


## What will it do for the bottom line?

- Higher capital costs
- Lower operating costs
- Not much financial difference
- Improved reliability
- Lower land take
- Better neighbours



***Ask not what automation can do for your costs, ask rather what it can do for service quality and quality of life.***





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