



Session 5

WMS – THE TRUE COST

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The Chartered Institute of
Logistics and Transport (UK)





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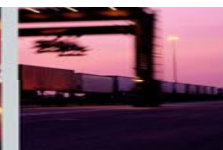
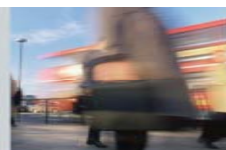
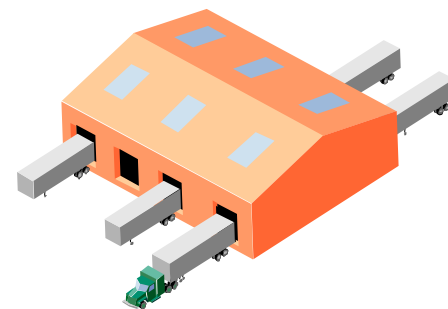


The True cost of a WMS
Steve Smith



Agenda

- WMS Evolution
- The obvious questions..
- Your obligations and requirements
- Vendor selection, their costs and how to control them
- Re-occurring costs
- Some common mistakes and assumptions
- The risk (cost) of failure !
- Summary
- Q & A

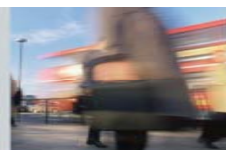
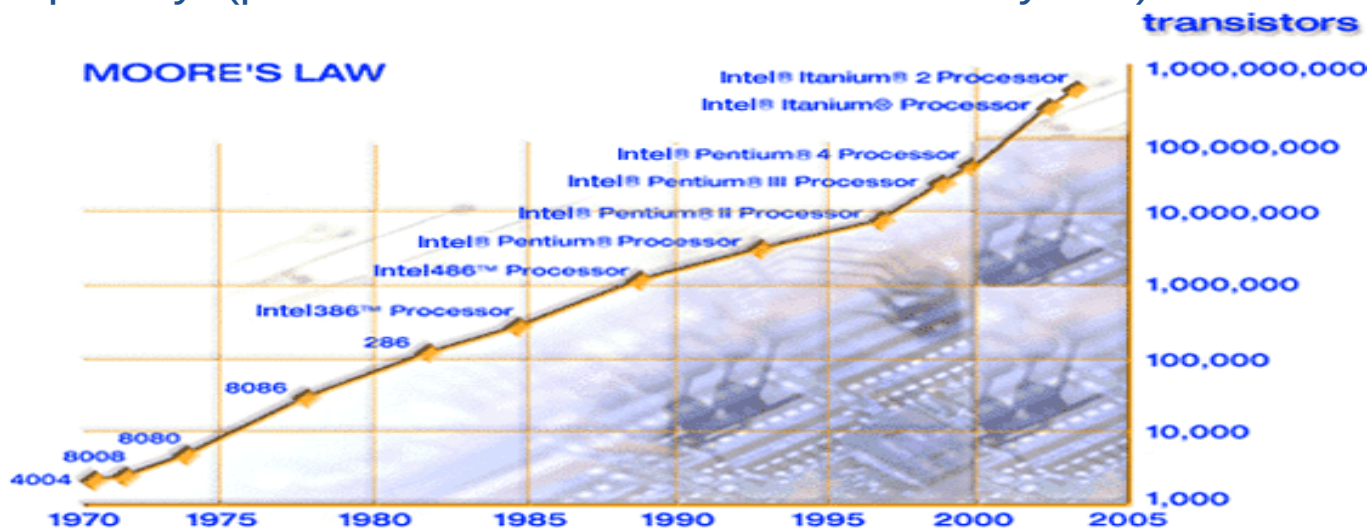




WMS evolution

Warehouse Management Systems (WMS's) have been commonly available for over 25 years. There have been a number of significant advancements since this time:-

- A continually reducing technology cost and improved processing capability. (predicted to continue for the next 20 years).





WMS evolution

1980
Sinclair ZX 80



About 1 weeks pay
3.25 Mhz
16KB ROM

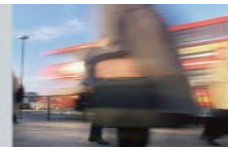
2006
Dell Dimension 1100



About 1/3rd the price (in real terms)
1000 times faster,
5000 times more Storage



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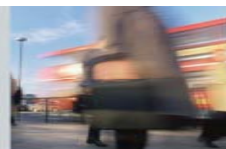




WMS evolution

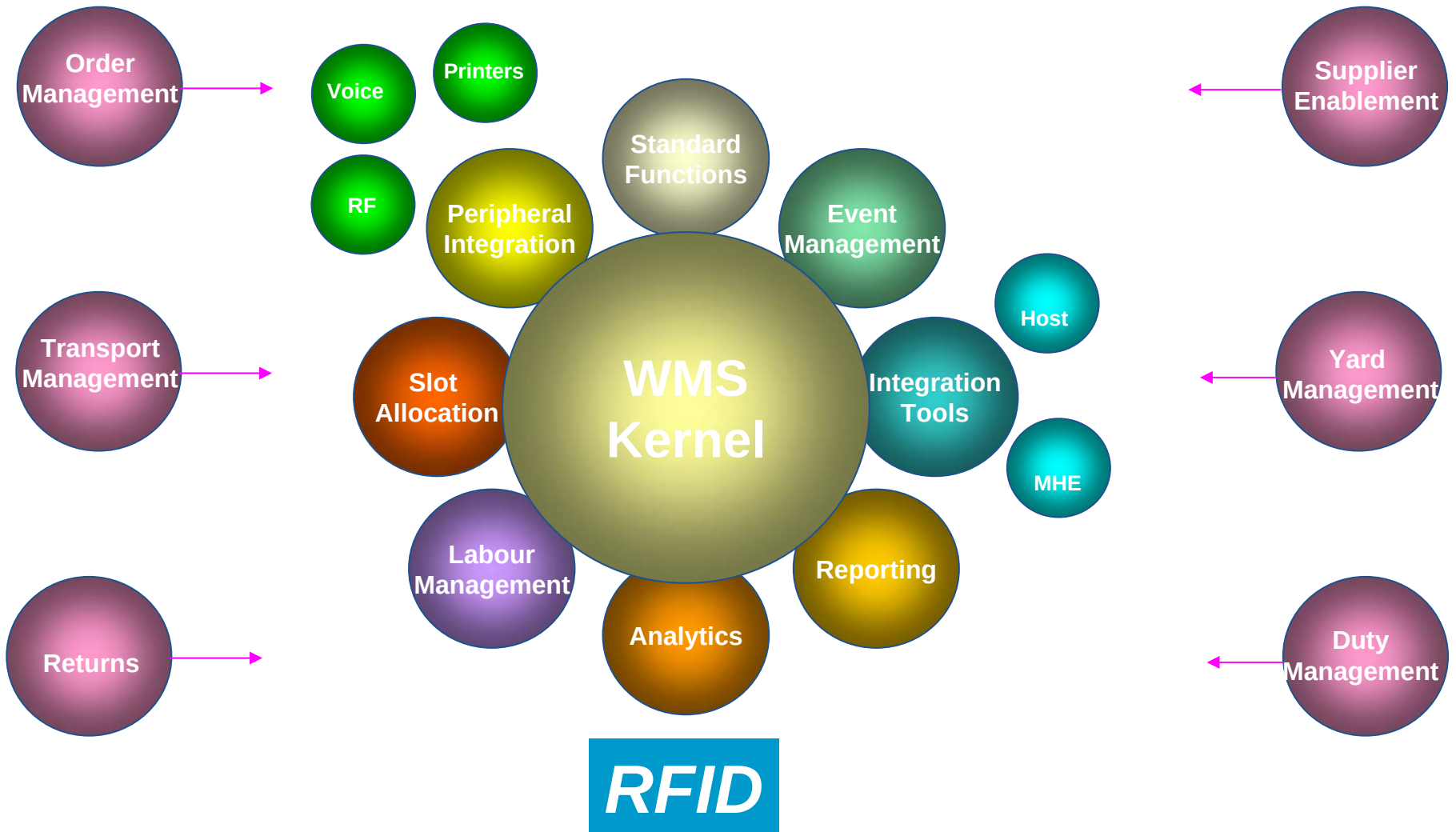
Warehouse Management Systems (WMS's) have been commonly available for over 25 years. There have been a number of significant advancements since this time:-

- A continually reducing technology cost and improved processing capability.
- An expanding portfolio of “extended” capability has steadily grown – increasing the “reach” of WMS solutions
- Globally, there are more than 300 known WMS providers who claim to offer advanced capability, 20 years ago there were only 18.





WMS Evolution

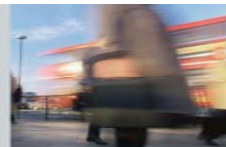




Cost is relative, ROI and TCO are king !!

Project costs must align to the ROI and overall TCO, however, you must first determine the ROI...

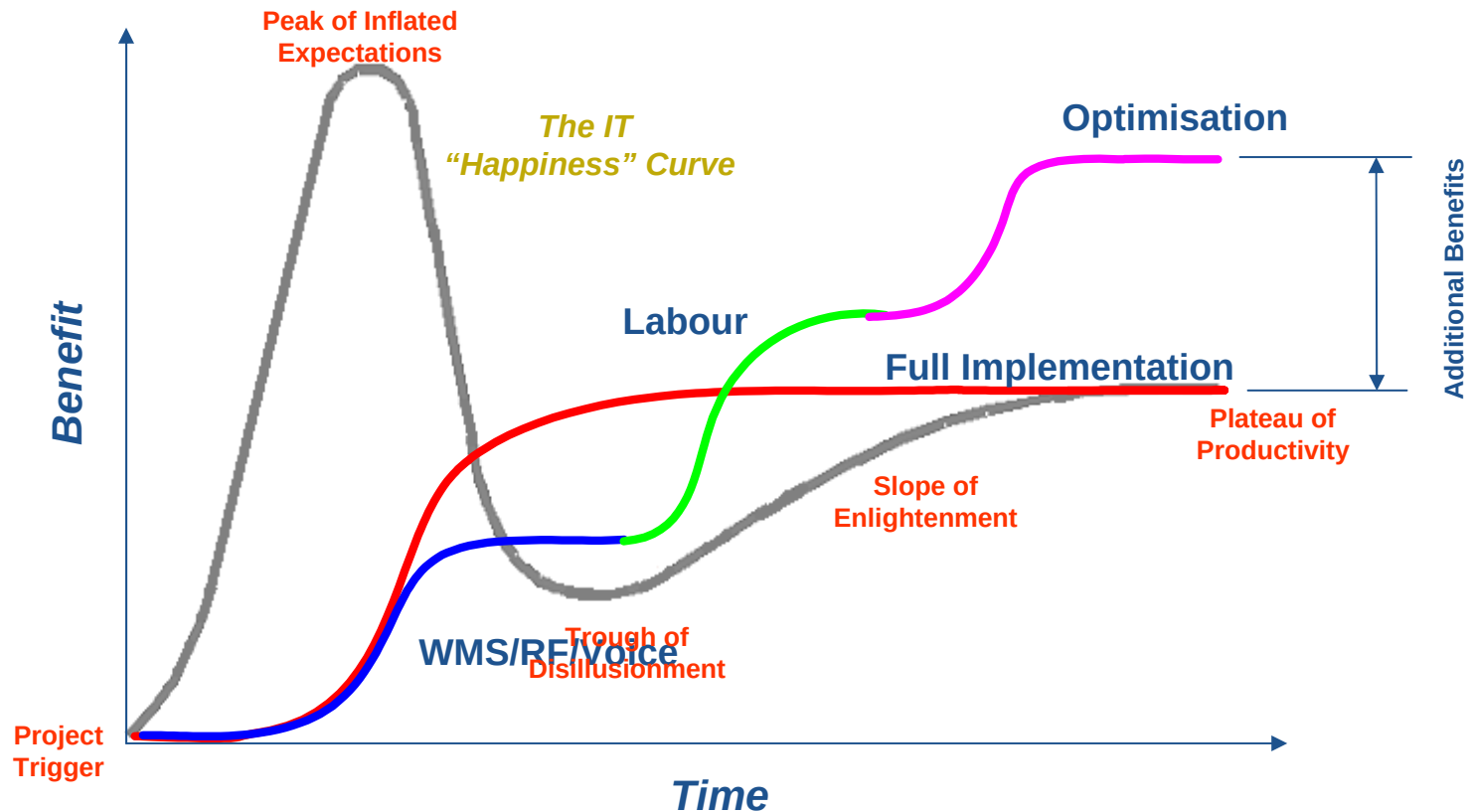
- Don't believe anyone
- Determine the saving potential conservatively
- Consider the saving potential against alternative initiatives
- Do not “double count” benefits
- Derive a sensible/achievable benefit ramp
- Use the resultant savings as a hurdle rate and future KPI's for the project





Benefit Plan

Phased approach to Benefits



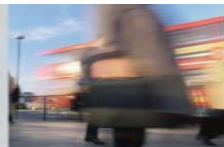
Overall benefits directly relate to implementation approach, timing and technology adoption rate



The Obvious Questions...

To determine a COST, you first need to understand the what, why, and how.

- What are the business pains that you are trying to address?
- Do you need more or less than a WMS to “fix” the pains?
- Can you avoid a purchase?
- Is there existing solutions which can be expanded to address the key issues at low cost/low risk?
- Do you know how to procure and install a WMS?
- Do I buy or make?
- What help/skills do I need?, and who is going to provide it?
- Is there internal support, commitment and budget?
- What is the expected life of the WMS solution?





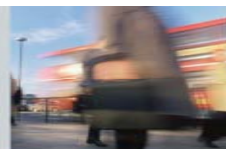
Your Obligations

In order to minimise the overall costs, it is imperative that you:-

- Define and document your requirements precisely
- Decide and agree your team construct
- Obtain executive support
- Agree an implementation “window” and high level project timeline
- Understand and overlay any other project dependencies and understand the priorities
- Define the objective benefits, ROI and how you will achieve them
- Adopt a holistic approach to defining your requirements

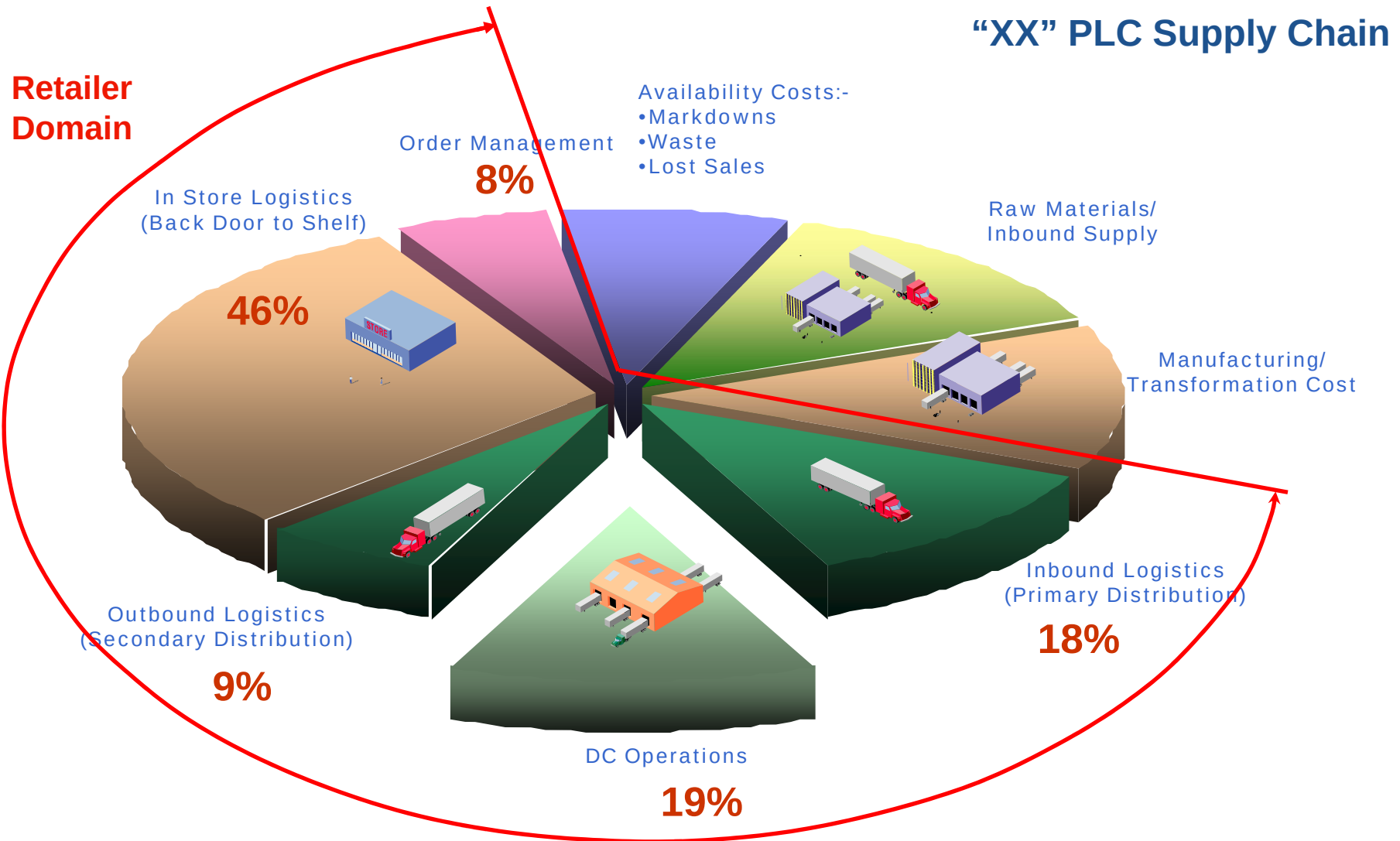


Ensure you are internally organised, prepared and clear on what, why and how you are going to procure and implement the WMS, before you engage externally.





WMS – Know what is important !!





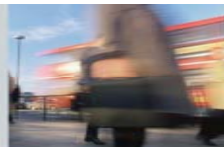
WMS Requirements Definition

To maximise the impact of the WMS implementation, the requirements definition should:-

- Reflect the “to be” operating flow and working practices – do not automate bad processes
- Define any technology preference
- Understand and document the current and future operating volumes, transaction rates and service requirements of the WMS
- Define and document the WMS integration needs to host, order processing or other systems



*The completeness (or not) of your requirements definition documentation will directly relate to the vendor cost submission and level of future “creep”.
– Make sure you are clear, No ambiguity*

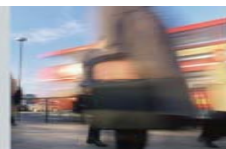




WMS Team Construct

It is possible to minimise the external costs of a WMS implementation by ensuring qualified internal resources are assigned.

- Ensure that a project team are qualified
- “Ring fence” the key resources
- Do not use availability as a selection measure
- If internal skills are not present, consider temporary employment of expertise.
- Ensure that the internal team encompass Operations, IT, HR and Finance departments
- Over communicate progress, expectations, achievement and issues internally and externally.

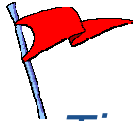




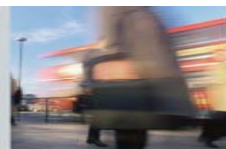
Vendor Selection

Vendor selection traditionally adheres to a tiered approach by the customer

- Request for Information (RFI) circulated to a wide audience – objective to identify a shorter more definitive list of suitable providers
- Request for Prices (RFP) – distributed to a smaller, more selective listing of providers to qualify outline costs
- Detailed assessment – direct engagement with a select number of providers – normally 3 or 4 to decide upon preferred solution



Tightly control the selection process, set deadlines, expectations and define objective measures and weighting to guide your thought process. Cost is not the only or most important criteria.

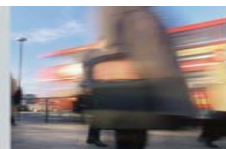




Vendor Selection

Poorly selected vendors will always lead to escalating costs, increased risk and implementation delays, make sure:-

- That the vendor demonstrates expertise in your specific market
- That they “show” their capability
- That you undertake your own due diligence, don’t take the vendors word for their solution suitability
- Don’t buy futures (but always consider the longer term)
- Treat suggestions of “customisation”, “personalisation” or any other deviation from the “base product” as a cost/risk/delay warning
- Use independent and external support and advice to help with your selection (AMR, ARC, Forrester)
- Verify cultural fit. – this will be a long term relationship
- Evaluate and determine the vendors market presence and long term support plans





Vendor costs and how to control them

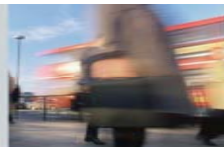
Software licenses

Pricing and cost structures can sometimes be confusing, make sure you fully understand the approach:-

- Understand what is a “user”
- Understand the difference between “named” and “concurrent” users and cost compare accordingly
- Ensure that you accommodate peak trading periods
- If site based, what is a “site”?, what are the restrictions?
- Is the licence perpetual? Is there an end of life?



Many vendors provide a “componentised” solution set. Make sure you know what you are buying, that it planned for ongoing support and development over the life of the project and that the required software prices are inclusive





Vendor costs and how to control them

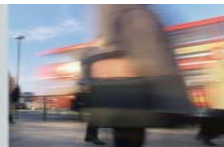
Consulting services

Provided by the vendor aim to support the customer through design, implementation, education, testing and go live of the WMS.

- Costs are normally aligned to a SOW and project plan – make sure you agree with the content, deliverables and timeline
- Strictly control and administer any deviations from the plan
- Consulting services are commonly reclaimed on an hourly or daily basis. Understand what this includes and excludes
- Fixed price or time and materials?
- Take control of personnel expenses



Vendor consulting costs can easily escalate if the project is poorly defined, controlled and executed against an agreed plan. Project delays from a customer perspective will increase the overall cost from the Vendor.

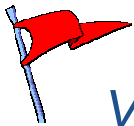




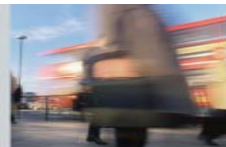
Vendor costs and how to control them

Customer specific modifications and enhancements

- Most WMS implementations will require some customer specific developments or enhancements to ensure suitability, however, these should be limited to:-
 - Interfaces between WMS and host systems, e.g. ERP
 - Interfaces between WMS and MHE
 - Customer specific reporting or configuration to pre-printed document forms
- Functional enhancement/change should be avoided where possible as this will add cost, risk and potential re-occurring cost.



Verify the vendors view of whether any specific modifications are considered “core” or “non core”





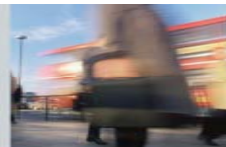
Vendor costs and how to control them

Maintenance/Support fees – “The Insurance Policy”

- Customers are normally required to enter into an on-going maintenance/support agreement with the vendor to provide:-
 - Post implementation issue resolution and call centre support
 - On going provision of product upgrades and enhancements
- To determine the cost impact of providing this capability, It is important for the customer to understand and determine
 - Their support needs, e.g. 8*5 or 24*7
 - Any internal requirements and initial issue resolution processes
 - Support communication costs and approach



Understand what maintenance and support actually covers and what you get (and what don't you get) for your investment





Vendor costs and how to control them

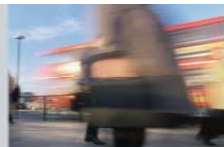
Third Party Products

In order to operate the WMS, it will be necessary to procure a technical environment (or re-use existing), to include

- Production, test, training environments (processors)
- User interface hardware (terminals, pc's, RF, voice etc)
- Operating systems and database software
- LAN environment
- Communications environment



Use the WMS vendors to specify the requirement and leverage their negotiation strength to obtain best possible prices for this equipment – but do your own checks too !!! Make sure you have the internal skills and understanding of these products.

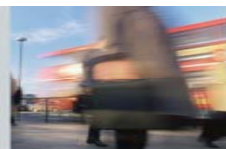




Customer Costs (direct and indirect)

WMS costs are not just relative to solution vendor, the customer must plan and budget for:-

- Resource costs (Direct)
 - WMS selection process
 - WMS project team costs (perhaps including 3PI)
 - IT support and input
 - User and Volume testing
 - User Education and training
 - Overtime payments for operatives (go live)
- Process Costs (Indirect)
 - BPR program – institutionalising best practice techniques
 - Awareness and education for affiliated departments, customers and suppliers





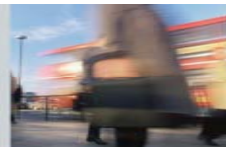
Re-occurring costs

There are a number of re-occurring costs normally attributed to the post implementation of a WMS, including:-

- On-going support and maintenance fees (annualised approach)
- Solution upgrades as they become available and where they add value
- Technology upgrades (Database and Operating System)
- “Health Checks” or effectiveness audits (technical, operational, procedural)
- Internal help desk and administration costs



Vendor initiated post implementation engagements should only be supported for compliance needs, to decrease operating risk or to extend the overall benefit case.

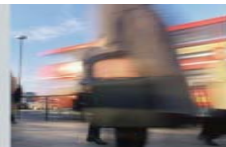




Common Mistakes and Assumptions

- Believing you will get high price results from a low cost solution

Purely as an illustration and to demonstrate the point...



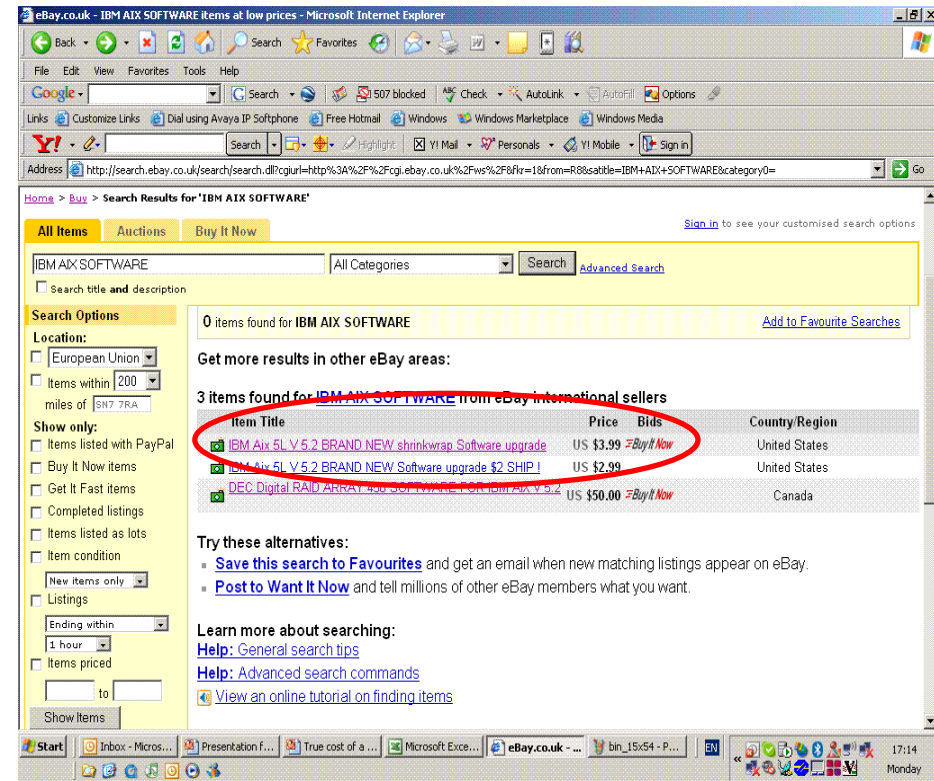


WMS Solution from Ebay !!

SAP R3 (including WM) - \$89.00 *Buy It Now*
Oracle 10g Database - £ 1.99
IBM Netfinity Server -£ 0.01
Symbol RF Device - £ 55.00 ea
Intermec Thermal Printer - \$199.00 ea *Buy It Now*
IBM Operating Software -\$ 3.99 *Buy It Now*

Assuming 20 user site, all RF with 2 printers,
total technology cost

Less than £1500 !!



Low Cost? - Absolutely, but do you really believe you will succeed or achieve anything other than a complete failure?



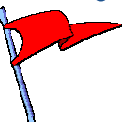
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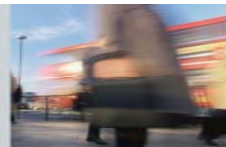


Common Mistakes and Assumptions

- Believing you will get high price results from a low cost solution
- Overselling the solution to the business and the users
- Lack of adequate training
- Poor data preparation and conversion plans
- Forcing a go live when the business, solution or staff are not ready
- Automating a broken warehouse
- Failing to control the project and leaving it to the vendor
- Believing that technology is the panacea to all of the problems
- Assuming the go live is the end of the project
- Not building an open and trusting relationship with your vendor



Escalating WMS project costs WILL be incurred if you ignore the warnings...

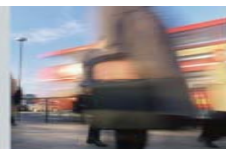




The Risk (Cost) of failure

WMS applications are truly mission critical. Their failure can lead to business turmoil and potential shut down.

- Do not underestimate the business risks and therefore the cost of failure
- Develop appropriate and effective contingency plans (and test them!)
- Mitigate any risk of failure by testing, testing and then testing again BEFORE you switch the system on
- Conduct regular checkpoint and risk assessment reviews throughout the project cycle
- Ensure adequate benchmark (KPI) measures are determined pre and post implementation to substantiate the benefit case and overall investment.
- Ensure through stringent controls that the project success is a career enhancing, as opposed to a career limiting experience.





Summary

Avoid the Hype ! – 5 guiding principles to control cost ...

- Focus on the tangible benefits case (measurable) and Total Value Realised (TVR) to define your key objectives
Business case phase
- Clearly define/document your current and future processes, technology preference, project objectives and project goals
Requirements definition phase
- Select and employ **appropriate** technology from a preferred vendor that directly supports the benefit case and best meets your requirements definition
Selection phase
- Own the project, cost, change and risk management
Execution Phase
- Measure and evaluate ROI and instigate a continuous improvement philosophy
Optimisation phase



An unsatisfactory Outcome !!



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A more positive View...



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Questions



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